Effect of Green Management and Earning Management of Energy Companies in Indonesia

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ABSTRACT

This study examines the effect of green management (GM) on earnings management in energy companies in Indonesia. The GM variable is proxied by environmental management, environmental performance, and environmental environment by using secondary data. The data used in this study is a regression panel data analysis for the 2015-2019 period. This study finds that GM does not have an impact on earnings management, but the size of the company that determines earnings management. The implication is that energy companies in Indonesia that implement GM do not determine companies to practice earnings management. On the other hand, the practice of earnings management is determined by the size of the company. Large companies tend to practice earnings management in providing financial statement information. Simultaneously, the GM variable and the size of the company together determine the company's earnings management practices in energy companies in Indonesia.

Keywords: Green Management, Company Size, Earning Management
JEL Classifications: N75, M40, Q56

1. INTRODUCTION

Green management (GM) influences the company's environmental performance (EP) (Molina-Azorín et al., 2009). It affects organizational sustainability by saving resources because it promotes sustainable products (Mustapha et al., 2017). According to Lee (2009), it is a strategy that affects social change and enables companies to innovate, save costs, and have a competitive advantage. A total of 32 studies were carried out to examine the effect of GM on financial performance with different results in an organization and the State (Grimaldi et al., 2020).

Meanwhile, the environmental issue becomes interesting because it affects organizational performance (Khresna Brahmana et al., 2018; Rachmawati, 2021; Putra, 2021; Khanifah et al., 2020). There are several reasons involved in the relationship between GM and earning management (EM) due to the accrual system which allows managers to select expenditures as assets or costs. According to Khresna Brahmana et al. (2018) and Suripto (2021), EM is regarded as the company's expenses that are treated as assets or costs.

EM practices are more dependent on the industrial sector because they manipulate and increase profits. For instance, the fluctuations in oil prices significantly affect the company's revenues. Therefore, macro conditions or oil prices are related to the practices. The study by You et al. (2018), Riduwan and Andajani (2019), Mela and Putra (2020), Supriyanto et al. (2021a), Alexandri and Supriyanto (2022), Sugiyanto and Febrianti (2021), Shafie et al. (2021), and Ye et al. (2022) showed that Indonesian oil and fuel companies manage their revenues in an inverse connection.

According to Mela and Putra (2020), fifteen oil organizations collapsed and declared bankruptcy due to the decline in their prices.

This is caused due to the group being unable to earn sufficient revenue. Therefore, this issue needs to be examined because the oil company is one of the most critical basic sectors that supply energy to various businesses, specifically in this country.

This study aims to determine the effect of GM on EM in oil and gas companies. However, this sector is sensitive to environmental issues, specifically for developing countries that are highly dependent on natural resources. The results are used as input in creating energy policies for advanced nations. Also, it plays an important role in developing science in the field of GM.

2. LITERATURE REVIEW

2.1. GM
The achievement of economic performance failed to guarantee a sustainable company that needs to attend to the ecological, environmental, and social issues. GM is while the attention given to the societal effect becomes a strategic issue for the organization in ensuring long-term success. It is also a way of regulating the environment through a specific method (Assagaf et al., 2021).

2.2. EM
EM is an associate accounting policy selcted by managers to win bound goals, personal interests, and company performance. It conjointly prevents managers from violating the contract defaults that can affect them and the organization (Murniati et al., 2019, Santos-Jaén et al., 2021, Redaputri et al., 2021, and Alexandri and Supriyanto, 2022).

2.3. Hypothesis Development
GM was used by several companies as EM for 2 reasons including the following. First, it is the step-up system that enables dealings expenditures to be thought-about assets due to the future influence. Second, analysis and development assist in promoting prices that have future edges and square measures. This means that GM manipulates high revenue through analysis and development expenditures. Therefore, treating prices as assets is one of EM practices (Surya et al., 2021).

Companies were faced with environmental problems because investors imagine that managers failed to use sensible deeds. Recently, the philanthropic movement provides extra space for managers to act on EM. This enables companies to satisfy market expectations and portrays money strength that tends not to replicate economic reality. Meanwhile, the organization's environmental responsibility program enables investors to expertise huge losses once there is an Associate in Nursing scandal (Alqaralleh et al., 2021; Hardiningsih et al., 2020; Huynh, 2020). According to Healy and Wahlen (2005), EM occurs once managers incorrectly "provide stakeholders with information concerning the company's basic economic performance."

3. METHODOLOGY AND DATA

3.1. Study Sample
This is a quantitative study, and participants used were selected from the energy mineral sup sector companies listed on the Indonesian stock exchange from 2015 to 2020.

3.2. Study Variables
This study focused on the unbiased and dependent variables including GM and EM. Also, notably association measurement and leverage were used to strengthen the relationship between the impartial and established factors. It was revealed that GM uses an environmental management system (EMS), performance, and disclosure. EMS is quantified by using a dummy variable that assigns zero and one to organizations that failed to have a certificate and those with an ISO 14001-certified.

EP is quantified by the Ministry of Environment's Proper system. It assists in producing and maintaining a specific society for business (Wang et al., 2021) [3]. It is also quantified by using proper systems that comprise Gold (5), Green (4), Blue (3), Red (2), and Black (1) (Raharjo, 2019).

Environmental Disclosure necessitates the development of objects that are compared to those in the company's annual report. It can be assessed using the CSR index sourced from the Global Reporting Initiative's Sustainability Reporting Guidelines (SRG) (GRI). Each object in the lookup instrument is assigned a price of one and zero if it has been disclosed or not. Furthermore, all goals are added up to arrive at the average rating for an organization.

CSR is calculated using the following method, namely equals Xij nj = Index of an organization's Corporate Social Responsibility Disclosure j Nj = Number of items for firm j Xij = Pseudo-variables. An object I can have 1 or 0 if it is disclosed or not, respectively.

According to Islam et al. (2011), EM is measured using the Jones model including the Discretionary Current Accruals with the following calculations.

1) Determining the value of Total Accrual (TAC)
$$\text{TAC}it = \text{N}it - \text{CFO}it$$

2) TAC estimated by regression equation Ordinary Least Square
$$\text{TCAit}\text{A}it - 1 = \beta1(1\text{A}it - 1) + \beta2(\Delta \text{REV}it \,\text{A}it - 1)$$
$$+ \beta3(it\text{A}it - 1) + \text{e}it$$

3) Non-Discretionary Accruals (NDAC)
$$\text{NDAC}, t = \beta1(1\text{A}it - 1/) + \beta2(\Delta\text{REV}it - \Delta\text{REC}it\text{TA}it - 1)$$
$$+ \beta3(\text{E}it\text{A}it - 1/)$$

4) The Current Discretionary Accruals (DAC) are calculated using the following formula.
$$\text{DAC}it = [\text{A}it - 1/] - \text{NDAC}i, t$$

Information:
$\text{N}it$: Net income of company I in year t
$CFOi$: Cash flow from operating activities of company I in year t
$TACi$: Total accruals for the company I in year t
$DACi$: Discretionary Accruals firm I in year t
NDA: Non-Discretionary Accruals firm I in period t

Ait -1: Total Asset company i at t-1

$\Delta REVi$: Changes in the company's revenue in the year it

4. RESULTS AND DISCUSSION

4.1. Data Analysis

This study used a traditionality test to determine whether the regression model has a regular data distribution or not. The traditional PP Plot method is also performed by dispersing the components within the graphic. The residual records are often spread if the distribution is on a diagonal line. Meanwhile, the residual records failed to be frequently distributed if the factors are further from the road. Figure 1 shows normalcy examination results.

Figure 1 shows that the distribution of components in the PP plot image is close to a straight or oblique line. This indicated that the final datasets are widely distributed.

The two regression analyses were conducted to show whether there is a link between the freelance variables or not. Therefore, this study aims to determine the presence or absence of multiple regressions in the tolerance charge and variance inflation (VIF).

The figure also shows that tolerance and VIF are >0.1 and <1 respectively. This indicates that there is no multiple regression between the freelancing variables. The following data were acquired to support the multiple regression examination procedures using the SPSS 24.

Table 1 shows that the tolerance fee for the three variables has no VIF > 10 because it is > 0.1. This indicates there is no association between uncorrelated variables.

4.2. Findings

The hypothesis results showed the following. The following Table 2 shows the results of the hypothesis.

4.3. Hypothesis Results

The hypothesis results showed that Environmental to Financial Management was rejected with a hefty fee of 0.343 > 0.05 but accepted for 0.001 < 0.05. Also, the statistical analysis indicated that GM and Company Size (CS) to EM was accepted for 0.001 < 0.05.

4.4. Discussion

Companies with EMSs failed to encounter EM. This is because the combination of GM and CS helps in determining EM. This implies CS assists in controlling the effect of an environmental management system on EM practices. In reality, companies that implement GM tend not to involve in EM due to good financial performance (Sharma and Kuang, 2014). These results showed that management practices are not related to GM. According to Grimaldi et al. (2020), sustainability-oriented companies tend not to engage in EM. This study has several limitations including a low number of companies that implement environmental-oriented management systems (Litt et al., 2014), (Hatane et al., 2020). The results showed that EM is not determined by GM but through CS. This means that management practices are related to the business scale operated by the companies.

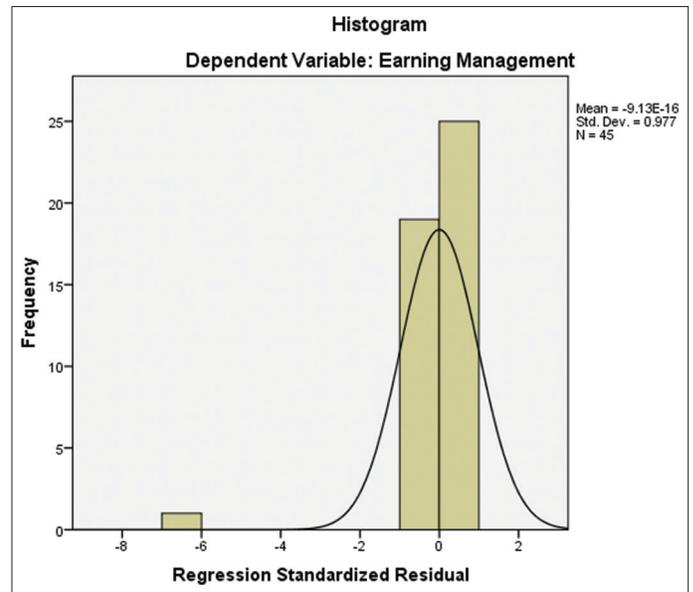**Figure 1:** Normality Test on Earnings Management variables

Table 1: Unstandardized coefficients, standardized coefficients, and multicollinearity test results

Variable	Unstandardized coefficients	Standardized coefficients	VIP	Sig
Green Management to Earning Management	4.940	0.128	1 0.014	0.000
Size of the Firms to Earning Management	4.143	0.488	1.014	0.000

Table 2: Hypothesis, Unstandardized coefficients, t - Test and Hypothesis Test Results

Hypothesis	Unstandardized Coefficients	t	Sig	Test result
Green Management to Earning Management	4.940	0.960	0.3 43	Rejected
Company Size to Earning Management	4.143	3.669	0.001	Accepted
Simultaneous	-	-	0.001	Accepted

5. CONCLUSION

The results showed that GM failed to determine EM in energy companies in Indonesia. This means that environmental and social issues that help to develop a sustainable business are not decisive for organizations in performing EM. However, GM system that requires substantial financing failed to affect energy companies. This is because environmental management help to improve economic performance and develop a sustainable product. In Indonesia, CS significantly affects EM in energy companies. Simultaneously, CS and GM influence EM. This means that larger organizations tend to practice EM more than smaller ones. The environmental and socially-oriented programs failed to affect company performance because they enable management to convert expenditure into assets.

Further study is expected to increase samples in the oil and gas sector with an extension of observation time. This finding implies that government policies in the environmental sector do not cause companies to report valid financial statements. However, large companies indicate that they are doing earnings management, because the expenditure to maintain the environment is quite large. Therefore, adequate audits of financial statements and environmental audits are required

6. ACKNOWLEDGEMENT

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