

# Determinant Factors Effect Environmental Disclosure and Firm Value at Mining Companies listed Indonesia Stock Exchange

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**Abstract.** The study aim is to examine the effect from board size, board independence, audit committee, woman on board to firm value through environmental disclosure as a mediating variable. Agency theory and stakeholder theory use in this study. The sample in this study is all mining companies listing on the Indonesian Stock Exchange. Data is the 2013-2017 from the annual report. The result shows board size and board independence to environmental disclosure not significant. However, the audit committee, woman on board effect to environmental disclosure shows significant results. This is similar to the relationship between environmental disclosure and firm value shows a positive and significant result. The limitation in this study is just use sample from mining companies, and also only use annual report. Future research can do this study use other type companies such as banking sector, manufacturing sector and use other report such as sustainability reporting.

## 1 Introduction

The increased awareness of stakeholders results in increased demand for companies to disclose information about the environment in which the companies conduct their operations. The stakeholders, for instance, the government, as well as international and other related associations, require the involvement of companies in preserving the environment through rules and regulations [6, 11, 12, 14-18]. [20, 27] revealed environment has become an important business issue.

The Indonesian government has several rules related to the environment for business entities. First, Law No. 32 of 2009 about Environmental Protection and Management. Secondly, for a Limited Liability Company, the Law No. 40 of 2007 about Limited Liability Companies. Thirdly, Government Regulation 47 of 2012 about Social and Environmental Responsibility of Limited Liability Companies. Lastly, Regulation of the Institution Supervisory Agency of Capital Market and Financial Number X.K6 about Obligation to convey Annual Report of Issuers.

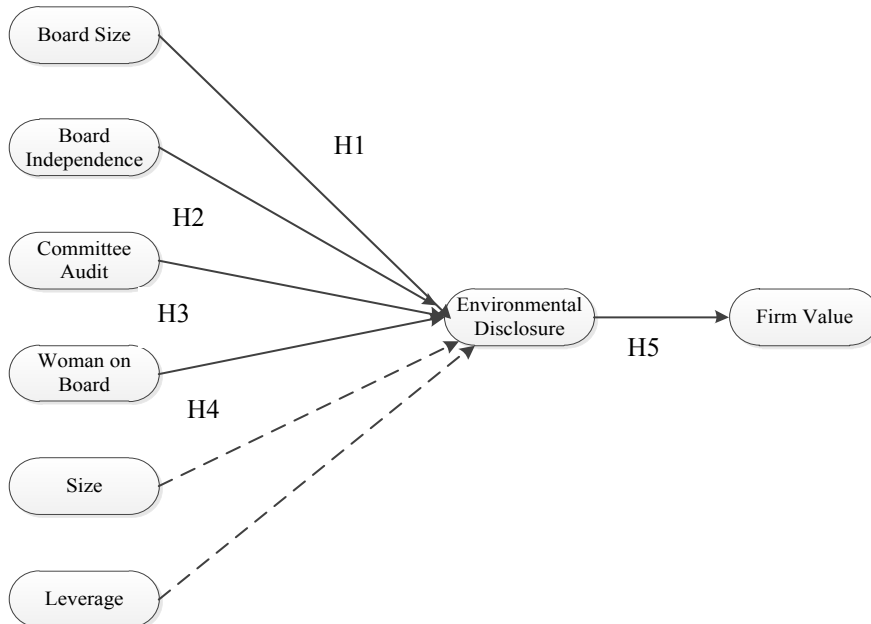
There are several studies in Indonesia that have examined environmental disclosures. [15] found that mining companies tend to disclose more related environmental information than other industries companies. [28] shows that environmental disclosure has significantly and positively correlated with board size and environmental disclosure. [11] reveal that

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financial performance does not have significant effect on environmental disclosure, while environmental performance has a positive influence on environmental disclosure. However, environmental disclosure has not influence on firm value, follow that environmental disclosure does not mediate the relationship between financial performance and environmental performance through firm value.

The purpose of this study is to examine the determinant factors effect firm value through environmental disclosure. The factors in this study include board size, board independence, committee audit, woman on board, size and leverage. This research focus on mining companies listed in Indonesia Stock Exchange.



**Fig. 1.** Framework of the study

The objective of to examine the effect from board size, board independence, Audit committee, women on board to firm value through environmental disclosure as a mediating variable.

## 2 Materials and Methods

### 2.1 The Hypothesis Development

#### 2.1.1 Board size and Environmental Disclosure

The results show that the board size and environmental disclosure have a positive and significant influence {1, 4, 7, 8, 23, 28}. [30] showed a negative influence both board size and environmental disclosure. Board size has no effect and not significant with environmental disclosure {1, 5}. Therefore, our hypothesis is: H1: The board size has a positive link to environmental disclosure.

### 2.1.2 Board Independence and Environmental Disclosure

Previous studies showed mixed results. First, the results show between board independence and environmental disclosure have a positive influence [4, 7, 8, 23, 26, 29]. Board independence does not effect on environmental disclosure, [1, 5, 24]. Based on the explanation, the proposed hypothesis is: H2: Board independence have a positive effect on environmental disclosure.

### 2.1.3 Audit Committee and Environmental Disclosure

Audit committee have a positive relationship with environmental disclosure [3, 4, 19, 23]. Audit committee does not have a significant link with environmental disclosure [1, 2, 22]. Therefore our hypothesis is in the following: H3: Audit committee have a positive impact with environmental disclosure.

### 2.1.4 The Woman on Board and Environmental Disclosure

Previous researchs have shown different result. First, woman on board have a positive effect on environmental disclosure [23, 24]. Woman and environmental showed nto significant [1, 5, 15, 29]. Thus the following hypothesis is: H4: Woman on board have a negative effect on environmental disclosure.

### 2.1.5 Environmental Disclosure and Firm Value

Environmental disclosure has a positive effect on firm value [9, 13, 19, 21, 24]. However, environmental disclosure does not link with firm value [26]. Based on the above explanation, our hypothesis is H5: Environmental disclosure has a positive influence on firm value.

## 2.2 Sample

The population is about forty one companies, but in this study all mining companies from Indonesian Stock Exchange as sample. The data taken is the period of 2012-2017 from the Indonesian Stock Exchange. The total data are 205 observations.

**Table I.** The Measurement of Variables

<b>Variables</b>	<b>Measurement</b>
Board Size	The total number of board in a company
Board Independence	The percentage of independence board of the total number of board
Audit Commiittee	The total number of audit committee
Women on Board	The total number of Women on Board
Environmental Disclosure	Scoring Technique based on GRI, G4. % Disclosure = $\frac{\text{Number of Item Disclosure}}{\text{Total Number of Disclosure}}$
Firm Value	Tobin's Q
<b>Control Variables</b>	
Size	The logarithm (Ln) of total assets
Leverage	The ratio of Debt to Equity

## 2.3 The Data collective Technique

The data is collected from annual report companies that listed in Indonesian Stock Exchange especially mining companies. The data is from 2013-2017. Structural Equation Model based on the framework of this research is the following:

$$ED_{it} = \alpha_0 + \alpha_1 BS + \alpha_2 BI + \alpha_3 CA + \alpha_4 WOB + \varepsilon \quad (1)$$

$$FV_{it} = \alpha_0 + \alpha_2 ED_{it} + \varepsilon \quad (2)$$

Where:

ED = Environmental Disclosure;

FV = Firm Value; s

$\alpha_0$  = Constants;

$\alpha_1, \alpha_2, \alpha_3, \alpha_4$  = Coefficients;

BS = Board Size;

BI = Board Independence;

CA = Audit Committee;

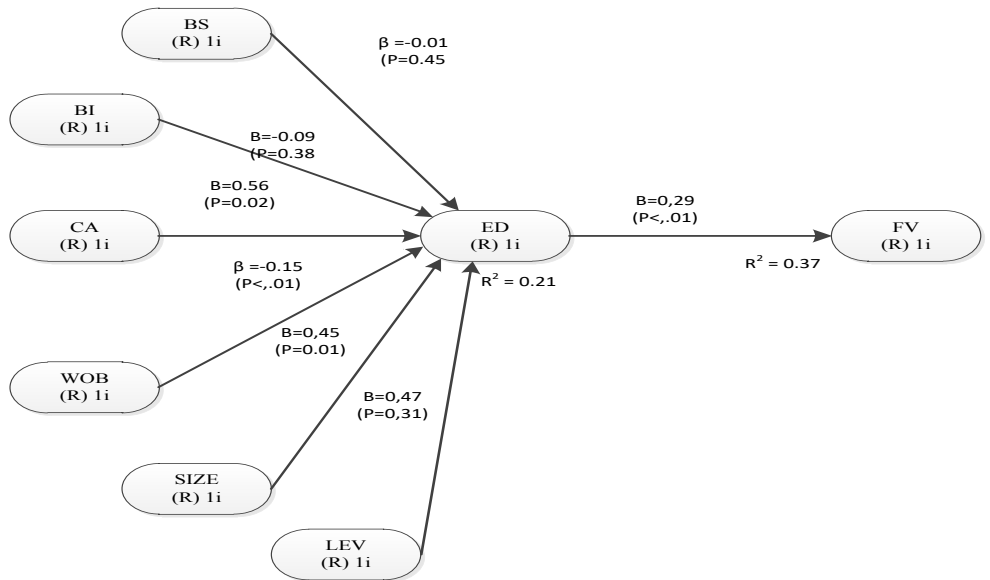
WOB = Woman on Board;

$\varepsilon$  = Standard error

## 3 Results and Discussions

### 3.1 The Result Research of this study

Figure 2 and Table 2 present the result research from the five hypotheses proposed only three hypotheses are accepted. The fourth and fifth hypotheses are accepted ( $p < 0.01$ ), and the second hypothesis ( $p = 0.02$ ) is less than 5%. On the other hand, the first and second hypotheses are rejected based on the hypothesis test result because  $p > 5\%$ , the first hypothesis ( $p = 0.45$ ) and the second hypothesis ( $p = 0.30$ ). The board size and board independent are not significant effect on environmental disclosure. However, committee audit and woman on board have a significant result to environmental disclosure. It is similar to environmental disclosure have a positive and significant effect on firm value. The controlling variables include firm size and leverage showed different results. At company size, it is seen significant result to environmental disclosure. However, the leverage shows different result that is not significant effect between leverage and environmental disclosure. Thus, the larger companies, the more disclose environmental in their business entities. Size and leverage as control variables. It can be seen that size is significant but not for leverage, it is not significant. The biggest size can influence to environmental disclosure, not for leverage.



**Fig. 2.** The result research

**Table 2.** The Hypotheses Result

Hypothesis	Coefficient	p Value	Result
H1	-0.01	0.45	Rejected
H2	-0.09	0.38	Rejected
H3	0.56	0.02	Supported
H4	-0.15	<0.01	Supported
H5	0.29	<0.01	Supported

### 3.2 Board size and Environmental Disclosure

The first hypothesis (H1) which states board size have a positive affect on environmental disclosure. Based on the result research H1 is rejected. The results indicate board size does not link to environmental disclosure. This study in line the previous research [1, 5, 22, 26]. They result research does not significant between board size and environmental disclosure. Thus, the more board members in the board does not influence to disclose about environmental information in the company.

### 3.3 Board Independence and Environmental Disclosure

The second hypothesis (H2) which states board independence have a positive effect on environmental disclosure. The finding show not significant, H2 is rejected. This finding is consistent with previous study about the board independence does not have effect on environmental disclosure [1, 5, 22]. Usually an independent board can influence the company to disclose environmental information in the company that is a positive influence. However, based on the results of this study indicate that an independent board has no effect on environmental disclosure in the company.

### **3.4 Audit Committee and Environmental Disclosure**

The third hypothesis (H3) which states audit committee have a positive impact with environmental disclosure. The finding is accepted for H3. The results research supported previous research [3, 4, 10, 19, 22]. They reveal that the increase of audit committee, the more disclose of environmental in the business entities. The role of the audit committee is seen with the results of research that show a positive and significant influence on environmental disclosure.

### **3.5 The Woman on Board and Environmental Disclosure**

The fourth hypothesis (H4) which states Woman on board have a negative effect on environmental disclosure. The result research show a negative and significant effect between woman on board and environmental disclosure. This is actually inconsistent with previous research [9, 23, 25].

### **3.6 Environmental Disclosure and Firm Value**

The last hypothesis states environmental disclosure has a positive effect on firm value. The result research shows a positive and significant between environmental and firm value. The finding support the previous research [9, 13, 19, 24, 25]. The more disclose environmental information, the more increase firm value as well.

## **4 Conclusions**

This research supports agency theory as well as stakeholder theory. The agency theory the relationship between corporate governance and environmental disclosure. Although the results of the study revealed that the board size and the board independent were rejected, but for the audit committee and the women on board were accepted. Thus both audit committee and woman on board has impact on environmental disclosure, even though they have positive and negative effect on environmental disclosure. The last hypothesis support the stakeholder theory. The more disclose the environment, the increase firm value. The limitation in this study just use sample from mining companies form Indonesian Stock Exchange and only use annual report. Another limitation is focus on quantitative method in this study. Suggestions for future research is the research can use other type companies such as banking sector, manufacturing sector and also use sustainability reporting not only annual report. Suggestion for future research can conduct with qualitative method such as case study and depth interview.

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