



## The Effect of Profitability, Leverage, and Size on Environmental Disclosure with the Proportion of Independent Commissioners as Moderating

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### ARTICLE INFO

#### Article History:

Received January 3<sup>rd</sup>, 2020

Accepted June 30<sup>th</sup>, 2020

Available July 30<sup>th</sup>, 2020

#### Keywords:

Environmental Disclosure; Leverage; Profitability; Company Size; Proportion of Independent Commissioners

### ABSTRACT

The purpose of this study is to evaluate the effect of profitability, leverage, and company size on environmental disclosure with the proportion of independent directors as moderator. A maximum of 61 agricultural and mining sector companies listed on the Indonesia Stock Exchange in 2014-2018 were the population of this report. Sampling method used purposive sampling, so with 45 units of analysis, we get 9 sample companies. The quantitative method used regression analysis for balance. The results show that profitability does not influence on environmental disclosure. Leverage has a negative effect on environmental disclosure. Company size has a positive effect on environmental disclosure. The proportion of independent directors is able to moderate the effect of profitability on environmental disclosure, but is not able to moderate the effect of leverage and company size on environmental disclosure. This study concludes that leverage has a negative relationship with environmental disclosure and firm size has a positive relationship with environmental disclosure and the proportion of independent commissioners moderates the relationship between profitability and environmental disclosure. The findings show the important role of independent commissioners in environmental disclosure, namely providing investors with a balance and maintaining an unbiased and impartial atmosphere.

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### INTRODUCTION

Concerns for environmental quality and protection of human health have caused companies or organizations to pay more attention to the environmental impacts caused by the activities they undertake. The higher demands of society cause some companies, especially those which activities are related to the environment make policies that concern corporate accountability to stakeholders, especially in the environmental field. Companies in showing its accountabilities to stakeholders, one of the ways is by utilizing annual report and sustainability report as a means or media for the company to disclose environmental activities..

The increasingly widespread environmental problems motivate various parties both international and national to overcome these problems. This is shown by the emergence of environmental care organizations both on a national scale such as the Indonesian Forum for the Environment or WALHI and in the international scope such as Greenpeace and IUCN (International Union for Conservation of Nature). The government

has set sanctions for companies that result in environmental pollution, in the form of administrative sanctions, fines, and penalties for their actions as stipulated in the Environmental Protection and Management Law No. 32 of 2009.

The Government has also regulated the importance of disclosing environmental information for Limited Liability Companies listed in the Limited Liability Company Law. 40 of 2007, in article 66 paragraph 2 part C it is written that in the corporate annual report must contain at least a report on the implementation of social and environmental responsibility. In article 74 also states that every company that carries on its business activities in the field and or related to natural resources is required to carry out social and environmental responsibility. Even so, the government has not provided regulations requiring disclosure writing standard format so that many companies still do voluntary environmental disclosures.

Global Reporting Initiative or commonly abbreviated as GRI is a guideline that is commonly used by companies in preparing environmental disclosure. GRI is a non-profit organization with international scale that aims to standardize the practice of sustainability reports. In this case, organization or company can

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disclose performance and impacts that include social aspects, economic aspects and environmental aspects. Sustainability report can be prepared using GRI as a basis or guide.

Corporate operational activities that cause environmental damage become the cause of the lack of environmental information disclosure. For example PT Freeport Indonesia mining company which since 2017 has been supervised by the Ministry of Environment and Forestry and from the supervision it is found as many as 47 environmental violations categorized in certain sections (Hidayat, 2018). In the national environmental conference in Cibubur held on December 13, 2017, the Indonesian Forum for the Environment (WALHI) reported that Indonesia was still in an ecological emergency. The simplest definition is an emergency circumstance or situation caused by environmental damage. The activity of dominating the control of natural resources that is not environmentally friendly becomes a source of problems so that it has an impact on the loss of community channels on sources of livelihood (Rahmadi, 2018).

The importance of environmental disclosure from a company and supported by existing regulations, should be able to encourage companies in Indonesia to make environmental disclosure. However, based on various research data concerning corporate environmental disclosure in Indonesia, it is still not done maximally. This is supported by previous research findings summarized in table 1.

Based on the background description, it encourages researchers to find out about the elements that influence environmental disclosure by examining the variables of profitability, leverage, and company size. This is due to in the previous studies still found a research gap. Research conducted by Elshabasy (2017), Khusaini (2017) as well as Abubakar (2017) result findings that profitability has a positive effect on environmental disclosure. Meanwhile, Burgwal & Vieira (2014), Ijma & Yusnita (2018) as well as Deswanto & Siregar (2018) did not find any effect between profitability on environmental disclosure.

Research findings by Deswanto & Siregar (2018), Suhardjanto (2010) as well as Wu et al. (2010) find that leverage has a negative effect on environmental disclosure. Another case with research conducted by Elshabasy (2017), Abubakar (2017) as well as Lu & Abeysekera (2014) which do not find the effect between leverage on environmental disclosure. Company size has a positive effect on environmental disclosure as evidenced by Ijma & Yusnita (2018), Burgwal & Vieira (2014) as well as

Akbas (2014). Meanwhile, Elshabasy (2017), Abubakar (2017) as well as Carreira et al.(2014) found that environmental disclosure was not influenced by company size.

This study has a purpose in order to know and provide empirical evidence related to the effect of profitability, leverage, and company size on environmental disclosure and the role of independent commissioners in moderating the relationship. This study has originality in terms of the proportion of independent commissioners being positioned as a moderating variable. None of the previous studies which use a moderation variable so that it is expected to be able to uncover the causes of the inconsistencies in the results or findings of the previous studies.

The difference with previous studies is that where each variable is tested partially but the variables studied are integrated into a Moderating Regression Analysis in this study. Researchers are interested to re-examine variables that have inconsistent results in the previous studies by presenting moderation variable because it is allegedly there are other variables that also determine environmental disclosure. The use of the proportion of independent commissioners as a moderating variable is based on the idea that the presence of independent commissioners makes the interested parties will get benefit. This is especially in establishing conditions that are in line with the principles of good corporate governance in which independent commissioners have a higher level of accountability and independence in giving their views.

The phenomenon of environmental disclosure can be explained through 3 theories namely legitimacy theory, stakeholder theory and agency theory. According to legitimacy theory, organizations or companies should not only pay attention to investor rights in general but should also pay attention to public rights (Deegan & Rankin, 1997). One of these public rights is the right to obtain information about company activities that impact the environment through environmental disclosure whether it is positive or negative. Companies and organizations if they want to get legitimacy from the public, then the rights of the public need attention.

Agency theory states that agency relationship occurs when principal uses the services of another party, namely agent for the needs of principal by involving representatives of several decision makers to the agent based on decision making, separation of risk stakeholders, separation of control and ownership of company and supervision of functions (Jensen & Meckling,

**Table 1.** Average Level of Environmental Disclosure

No	Name of researchers	Environmental Disclosure	Objects
1.	Sari, <i>et al</i> (2019)	33.84	Mining and plantations on the IDX in 2013-2017
2.	Rahmawati & Budiwati (2018)	46.11	Mining on the IDX in 2014-2016
3.	Putra & Utami (2017)	40.13	Mining on the IDX in 2011-2015
4.	Ningsih (2017)	34.00	Mining and plantations on the IDX in 2012-2015

Source: Various journals summarized, 2019

1976). In an effort to align interests between principal and agent, transparency and environmental disclosure are carried out. According to stakeholder theory, the company in operating it is not only for its own needs but also needs to benefit stakeholders including investors, creditors, suppliers, consumers, government, analysts, society, and other parties (Ghozali & Chairiri, 2007). The company carries out environmental disclosure to be a means to report to stakeholders about corporate environmental activities.

The greater profitability ratio shows that the better the company is in obtaining profits. When corporate profitability is high, then the company is considered capable of financing disclosure so that the company will try to fulfil the information needs through extensive environmental information disclosure to overcome pressure from society. According to legitimacy theory, high profitability causes companies to pay more attention to the disclosure of their environment because public pressure will always be gotten by companies. According to Choi et al. (2013), if the company is in good financial condition, it will facilitate the company to mobilize its ability to publish voluntary disclosure reports so that it will be more effective in dealing with outside pressure. Research conducted by Elshabasy (2017), Khusaini (2017) as well as Abubakar (2017) find that profitability has a positive effect on environmental disclosure.

#### **H1: Profitability has a positive effect on environmental disclosure**

High corporate leverage will make it more likely to fulfil its obligations to debt holder than to carry out environmental disclosure because by carrying out environmental disclosure, instead, it even expands company expenses. Strict supervision by creditors towards the company makes management more careful in reporting its performance. In accordance with agency theory, high leverage causes companies to reduce the disclosure of information so that they do not get the attention of creditors. Agency theory states that management will reduce costs such as environmental disclosure because of high corporate leverage. Research by Deswanto & Siregar (2018), Suhardjanto (2010) as well as Wu et al. (2010) find a negative influence between leverage with environmental disclosure.

#### **H2: Leverage has a negative effect on environmental disclosure**

Based on stakeholder theory which explains that large companies are more exposed by media, analysts, regulators, and also the public so this makes the external parties give strict regulations and supervision as well as political pressure on companies to pay more attention to environmental issues, especially related to the implementation of environmental disclosure. This requires large companies to expand further environmental disclosure compared to smaller companies to meet the needs of stakeholders. The activity of large companies will certainly be more complex and more impactful to the community. This encourages companies to be more sensitive to environmental issues. The positive effect bet-

ween company size and environmental disclosure is proven by Ijma & Yusnita (2018), Burgwal & Vieira (2014) as well as Akbas (2014).

#### **H3: Company size has a positive effect on environmental disclosure**

High level of profitability causes pressure from the public to the company to report on its environmental activities also getting bigger. Based on legitimacy theory, companies in dealing with pressure from the community is achieved through an accountability mechanism played by an independent commissioner. Companies with high profitability require the role of an independent commissioner through its supervisory function so that it can influence the decisions and policies of a management to increase its accountability in the environmental field. Environmental disclosure will increase when the level of profitability is high accompanied by the role of an independent commissioner which is effective in carrying out factual supervision and can provide protection to the interests of the company so that it will encourage the extensive of the company's environmental disclosure level. Puspitasari & Ernawati (2010) argued that in order to increase company capacity, a high proportion of independent commissioners is needed to give more effective control over decisions and policies of managers and directors.

#### **H4: Profitability has an effect on environmental disclosure by being moderated by the proportion of independent directors**

High level of corporate leverage requires it to comply with agreements related to obligations that should be paid, thereby reducing the ability of companies to finance its environmental activities. Corporate decision to disclose environmental information results in expenses for disclosure that will reduce revenue (Suhardjanto, 2010). Based on agency theory, in handling conflict of interest issues between Agents and Principals is through Good Corporate Governance (GCG). So on that basis, the alignment of principal and agent interests can be achieved through an accountability mechanism that is played by an independent commissioner. Therefore, with high corporate leverage, the role of independent commissioners is needed in increasing supervision of directors and managers in the company which can then influence management decisions to ensure that the company can still meet the interests of creditors without sacrificing other stakeholders in obtaining information about environmental activities for the interests of long-term corporate sustainability (going concern).

#### **H5: Leverage affects on environmental disclosure by being moderated by the proportion of independent commissioners**

A large source of funds is certainly owned by a large company as well so that its management will also be more complex. Luo et al.(2013) explained that large amount of assets owned by a company causes high pressure from stakeholders and the public who have high expectations regarding carbon management practi-

ces. Stakeholders and the public tend to pay more attention to large companies so that it also requires a form of control and supervision to the company. According to stakeholder theory, large companies require the role of independent commissioners in conducting supervision towards large financial management to meet the interests of stakeholders in order to corporate accountability in the environmental field so that it will foster stakeholder trust to the company. Supervision that is effectively carried out by independent commissioners towards large companies that the management is more complex will ultimately have an impact on the extent of corporate environmental disclosure.

**H6: Company size influences environmental disclosure by being moderated by the proportion of independent commissioners**

**METHODS**

This research used quantitative method with research design using hypothesis-testing studies. The population in this study are agricultural and mining sector companies listed on the Indonesia Stock Exchange in 2014-2018 as many as 61 companies. The sample technique in this study used purposive sampling which then found as many as 9 companies. The period of the study was 5 years. The analysis units are 45 units as shown in Table 2.

Explanation of research variables is presented in Table 3. The documentation method is used in collecting data by utilizing annual reports and sustainability

reports. Data acquisition comes from the web page of Indonesian Stock Exchange (IDX) and the official web pages of agricultural and mining sector companies. Moderation regression analysis with the absolute difference value method becomes the data analysis technique used in this research and the analysis instrument used the SPSS 23 application. The significance level is 0.05. The formulation of the research model can be concluded in equation 1.

**Table 2. Sampling Process**

No	Criteria	Violating Criteria	Total
1	Agriculture and mining sector companies listed on the Indonesia Stock Exchange in the period 2014-2018	(9)	61
2	Agricultural and mining sector companies include the GRI G4 index in the annual report and the sustainability report	(52)	9
	Observation year		5
	Total analysis units		45

Source: secondary data processed, 2019

$$ED = \alpha + \beta_1 ROA - \beta_2 DER + \beta_3 SIZE + \beta_4 |ROA-PKI| + \beta_5 |DER-PKI| + \beta_6 |SIZE-PKI| + e \dots\dots\dots(1)$$

**Table 3. Operational Definitions of Research Variables**

No	Variables	Definition	Measurement
1.	Environmental Disclosure (ED)	Environmental disclosure is the disclosure of information related to the environment (Suhardjanto, 2010)	$(\sum \text{Item Disclosed}) / (\text{Total GRI G4 Items})$ (Sariet al., 2019)
2.	Profitability (ROA)	Profitability shows how much the performance of company in obtaining profits (Ijma & Yusnita, 2018)	$ROA = (\text{Net Income}) / (\text{Total Asset})$ Ijma & Yusnita (2018)
3.	Leverage (DER)	Leverage Ratio (solvency ratio) calculates the amount of asset financing that comes from debt when compared to private capital (Suhardjanto, 2010)	$DER = (\text{Total Debt}) / (\text{Total Equity})$ (Suhardjanto, 2010)
4.	Company size (SIZE)	Company size is a scale to measure large or small of a company (Ijma & Yusnita, 2018)	$\text{Ln}(\text{Total Asset})$ (Ijma & Yusnita, 2018)
5.	Proportion of Independent Commissioners (PKI)	Independent commissioners are members of the board of commissioners who are not affiliated with directors, other members of the board of commissioners and controlling shareholders, and free from business relationships and other relationships that can affect the ability to act independently or act solely for the interests of the company (Komite Nasional Kebijakan Governance, 2011)	$(\sum \text{Independent Commissioner}) / (\sum \text{Board of Commissioners})$ (Suhardjanto, 2010)

Source: Various references processed, 2019

## RESULTS AND DISCUSSIONS

Descriptive analysis aims to provide an overview of data characteristics such as maximum, minimum, average (mean) and standard deviation. The results of the descriptive statistical analysis are presented in Table 4.

The normality test with Kolmogorof-Smirnov obtains the Asymp. Sig. (2-tailed) value of 0.200 or greater than 0.05, this value indicates that the data are normally distributed. The multicollinearity test has a VIF value of no more than 10 and a tolerance value less than 0.10, so it is said to be free of multicollinearity. The autocorrelation test with run test obtains Asymp. Sig. (2-tailed) value of 0.132 or greater than 0.05, so it is said that no autocorrelation symptom occurs. The heteroscedasticity test obtains a significance probability value above the significance threshold of 0.05, so it does not contain heteroscedasticity.

The coefficient of determination test produces an adjusted  $R^2$  value of 0.350. This shows that profitability, leverage, company size, and the proportion of independent commissioners as moderating explain 35% of environmental disclosure and then the remaining 65% is influenced by other factors not included in the design. The result of hypothesis test contains in Table 5.

### The Effect of Profitability on Environmental Disclosure

Environmental disclosure is not influenced by profitability. The legitimacy theory is not in line with the results of this testing, which with high profitability makes the company has more funds to facilitate the company in answering and overcoming public pressure.

Environmental disclosure is voluntary disclosure, so the high profitability of the company has not guaranteed that the level of environmental disclosure will also be more widespread. The companies tend to prioritize mandatory disclosure over voluntary disclosure because mandatory disclosure has been regulated in applicable regulations so it is mandatory to carry out. A high level of corporate profitability means that the company has had financial success so that the company is no longer considered to have the urgency to conduct environmental disclosure, because if the company is in good financial condition, it will have attracted investors to invest their capital. The finding of this study is consistent with research conducted by Burgwal & Vieira (2014), Ijma & Yusnita (2018) as well as Deswanto & Siregar (2018).

### The Effect of Leverage on Environmental Disclosure

Leverage has a negative effect on environmental disclosure. This means that high leverage will cause a decrease in the level of environmental disclosure. In line with agency theory, that the high level of corporate leverage causes managers to reduce the disclosure of information related to the environment in order to avoid the attention of creditors.

The low level of disclosure which is due to the high level of leverage makes companies more concerned with fulfilling debt agreements. This makes the company will be motivated to generate more profits in order to not get the debt holder spotlight, one of the efforts to increase profits is by reducing environmental activity, in this case reducing the cost of reporting information about the environment. This finding is consistent with research conducted by Deswanto & Siregar (2018), Suhardjanto (2010) as well as Wu et al.(2010).

### The Effect of Company Size on Environmental Disclosure

Company size has a positive effect on environmental disclosure. That is, the size of the company which is getting bigger is directly proportional to the level of environmental disclosure, which will also increase. Conversely, the smaller the size of the company makes the level of environmental disclosure also lower. Stakeholder theory apparently can confirm the relationship between company size and environmental disclosure.

In accordance with stakeholder theory, to meet the needs of stakeholders, the company can use environmental disclosure as a company policy in conveying non-financial information about the impacts caused by corporate operational activities. The increasingly complex activities of large companies and tend to be more visible by analysts, the media, government, and the public so that the company is motivated to present a wider disclosure. This makes the stakeholders place more trust because the company is considered to have a good reputation. This finding is consistent with research conducted by Ijma & Yusnita (2018), Burgwal & Vieira (2014) as well as Akbas (2014).

### The Effect of Profitability on Environmental Disclosure Moderated by the Proportion of Independent Commissioners

Profitability has an effect on environmental disclosure by being moderated by the proportion of in-

**Table 4.** Results of Descriptive Statistics Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
ED	45	0.1176	0.9706	0.415693	0.1790856
PROF	45	-0.6441	0.2425	0.040136	0.1228988
LEV	45	0.1692	11.9090	1.407856	2.1115468
SIZE	45	29.0639	31.6326	30.448747	0.7537936
PKI	45	0.2500	0.5714	0.380676	0.0800021

Source: *Output SPSS, 2019*

**Table 5.** Summary of Hypothesis Testing Results

No.	Statements	$\beta$	Sig.	Results
1.	H <sub>1</sub> : Profitability has a positive effect on environmental disclosure.	-0.004	0.895	Rejected
2.	H <sub>2</sub> : Leverage has a negative effect on environmental disclosure.	-0.116	0.001	Accepted
3.	H <sub>3</sub> : Company size has a positive effect on environmental disclosure.	0.090	0.005	Accepted
4.	H <sub>4</sub> : Profitability has an effect on environmental disclosure by being moderated by the proportion of independent directors.	-0.061	0.009	Accepted
5.	H <sub>5</sub> : Leverage has an effect on environmental disclosure by being moderated by the proportion of independent directors.	0.019	0.645	Rejected
6.	H <sub>6</sub> : Company size has an effect on environmental disclosure by being moderated by the proportion of independent directors.	-0.017	0.673	Rejected

Source: Secondary data processed, 2019

dependent commissioners. This means that the relationship between profitability and environmental disclosure successfully moderated by the proportion of independent directors. In line with legitimacy theory, where the independent commissioner conducts supervision to a high level of company profitability so that it continues to make environmental disclosures so that the company gets legitimacy from the public. Independent commissioners consider the interests of the community to obtain corporate accountability related to the environment through its supervision to avoid delegitimation from the public. The activity of independent commissioners in terms of strict supervision causes the company to move in a more positive direction so as to gain legitimacy from the public.

Independent commissioners view the fulfillment of information needs relating to the environment can be achieved with high profitability. Therefore, encouragement will be increasingly carried out by independent commissioners to the management in order to expand environmental disclosure. Thus, in this case, the independent commissioner has worked effectively and independently in carrying out supervision to the performance of company management with a high level of profitability through controlling the management policies to expand the level of corporate environmental disclosure.

#### **The Effect of Leverage on Environmental Disclosure by Moderated by the Proportion of Independent Commissioners**

The role of moderation in the proportion of independent commissioners to the relationship of leverage and environmental disclosure is not proven. This finding is not in line with agency theory where the independent commissioner is unable to handle the problem of misalignment of interests between the principal and the agent as well as the creditors so that it can be said that the independent commissioner in bridging the relationship between them is not running effectively. Independent commissioners as external parties usually do not know very well the ins and outs of the company management so that the role of independent commissioners in handling the specific problems that exist within the company has not been carried out to the fullest. Independent com-

missioners are not able to influence management decisions and policies in order to pay attention to fulfilling the interests of creditors without reducing the fulfilment of the interests of other stakeholders so that it can be said that the supervisory function of the independent commissioner is not going well. This condition causes the relationship between leverage to environmental disclosure cannot be moderated by independent commissioners.

#### **The Effect of Company Size on Environmental Disclosure Moderated by the Proportion of Independent Commissioners**

The role of moderation of the proportion of independent commissioners to the relationship of company size with environmental disclosure is not proven. Stakeholder theory was not successful in explaining the relationship between company size and environmental disclosure. According to Stakeholder theory, the impact of company activities will attract the attention of the public and investors. An increasingly large company size has implication for its management activities both in terms of financial and resources used. The results of the frequency distribution analysis show that 42.2% of the analysis unit is a large company and the proportion of independent commissioners of the company has an average of 38%, which indicates that the use of independent commissioners is merely to fulfill the provisions of the regulation of the minimum proportion of independent commissioners. If the proportion of independent commissioners in the company is small while the work that should be handled by the commissioner is a lot, it will cause the independent commissioner to focus more on supervising financial matters because it is considered more important than environmental disclosure which is still voluntary. This causes the relationship between company size and environmental disclosure cannot be moderated by independent commissioners.

#### **CONCLUSIONS**

The results of hypothesis testing indicate the negative effect of leverage on environmental disclosure. Company size has a positive effect on environmental disclosure. High or low profitability ratio of the company will not have an impact on the company in conducting environmental disclosure. However, High level

of profitability that is accompanied by monitoring from the independent commissioner makes disclosure increasingly. The research results show that the agriculture and mining sector companies in conducting environmental disclosure have an average value of 41.56% which is still relatively low. Therefore, the companies need to increase their environmental disclosure in order to guarantee corporate openness and accountability and for the sake of the company's long-term sustainability (going concern).

The proportion of independent commissioners is proven to be able to moderate the effect of profitability on the corporate environmental disclosure. This can be one of the options for the stakeholders or corporate owners to optimize the environmental disclosure that is by increasing the duties and roles of independent commissioners in monitoring and controlling the management activities of the company and ensuring that the company operates in accordance with its main targets and objectives. The government is also expected to set guidelines or standards that are adjusted to the conditions of companies in Indonesia related to environmental disclosure.

This study measures environmental disclosure based only on content analysis where if the item is not disclosed, it gives scale 0 and for items disclosed given scale 1, so there is still an element of subjectivity. That is because the way of writing management in the preparation of environmental disclosure there is no standard so the researchers look at something as subjectivity. Further research is expected to use a weighting scale for each item disclosed so as to minimize the element of subjectivity.

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