



The Determinants of Environmental Disclosure in Indonesia, Malaysia, and Thailand

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ABSTRACT

The study aims to analyze the affecting factors of environmental disclosure, such as company size, industry type, profitability, company age, environmental performance, and institutional ownership. The population of this study is the manufacturing companies listed on Indonesia Stock Exchange (IDX), Kuala Lumpur Stock Exchange (KLSE), and Stock Exchange Thailand (SET) in 2019. The sampling technique uses purposive sampling with 93 companies. The analysis technique uses is multiple linear regression. The result of this study show company size, environmental performance, and institutional ownership have a positive and significant effect on environmental disclosure. On the other side, this result shows industry type, profitability, and company age have an insignificant effect on environmental disclosure. The conclusion of this study is the company which is categorized as the bigger company with many institutions ownership, with verification ISO 14001 has more responsibility to contribute to environmental disclosure. This is because the company has operational activities and impacts related to the environment.

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INTRODUCTION

The issue of the environment is still the top topic at the WEF Annual Meeting which was held in Switzerland on 22 – 25 January 2019 (Parker, 2019). Environmental disclosure in the Southeast Asia region is still low and has not fully disclosed the environmental disclosure. Indonesia, Malaysia, and Thailand are included in the top 50 countries with the highest pollution levels in the world. Companies that have complex activities such as manufacturing sector companies have the opportunity to exacerbate pollution levels if they are not designed as well as possible in carrying out their operational activities (Bahri & Cahyani, 2017). A good company is a company that does not only focus on one goal, which is profit but makes the best possible disclosures, one of which is environmental disclosure. Environmental disclosure can gain public trust in the company.

A survey conducted by IQAir (2019) shows that Indonesia is ranked 6th, Malaysia is ranked 50th, and Thailand is ranked 28th. The level of pollution produced in Indonesia is 51.7 µg/m³, Malaysia 19.4 µg/m³, and Thailand 24.3 µg/m³. The pollution exceeds the

maximum limit which has been regulated by the World Health Organization, namely: 10 µg/m³. According to Greenpeace (2019), air quality in Indonesia was at the same level of PM 2.5 concentration as in Bangkok. Corporate operational activities can cause serious problems for the community and the environment around the company where all production activities operate.

Companies from Indonesia that resulted in are PT. How Are You Indonesia and PT. Kamarga Textile Industry polluted the environment in the Citarum watershed. A Malaysian company, WTK Holdings Berhad, has also polluted the environment caused by its production activities. Thailand is also not spared from the issue of environmental pollution. PTT Exploration and Production Public (PTTEP) polluted the environment in the form of an oil spill on the Australian continental takeoff. The incident caused by PTTEP caused damage to 1,232 hectares of mangrove forest, 1,429 hectares of seagrass damage, and 714 hectares of coral reefs (Rahmawati & Budiwati, 2018).

Environmental disclosure is a research topic that is often examined but still causes inconsistency. Research from Istiqomah & Wahyuningrum (2020); Wahyuningrum et al. (2020); Wahyuningrum & Budiharjo (2018); Rahmawati & Budiwati (2018); Ismail et al. (2018) prove that company size has a significant positive

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effect on environmental disclosure. Meanwhile, research from Rinsman & Prasetyo (2020); Elshabasy (2018); Chandok & Singh (2017); Djuminah et al. (2017) prove that company size does not affect environmental disclosure.

Previous research by Wahyuningrum & Budiharjo (2018); Dewi & Yasa (2017) prove that industry type has a significant positive effect on environmental disclosure. Meanwhile, Ismail et al. (2018); Chaklader & Gulati (2015) found that industry type does affect environmental disclosure. Finding results from Purwanto & Nugroho (2020); Ismail et al. (2018); Dewi & Yasa (2017); Ohidoa et al. (2016) find that profitability has a significant positive effect on environmental disclosure. Meanwhile, finding results from Rahmawati & Budiwati (2018); Junita & Yulianto (2018); Djuminah et al. (2017) show that profitability does not affect environmental disclosure.

Finding results from Istiqomah & Wahyuningrum (2020); Wahyuningrum & Budiharjo (2018); Rahmawati & Budiwati (2018); Welbeck et al. (2017) show that company age has a significant positive effect on environmental disclosure. Meanwhile, finding results from Elshabasy (2018); D'Amico et al. (2016) show that company age does not affect environmental disclosure.

Finding results from Maulia & Yanto (2020); Suhardjanto et al. (2018) find that environmental performance has a significant positive effect on environmental disclosure. Meanwhile, the research result from Purwanto & Nugroho (2020); Ismail et al. (2018) find that environmental performance does not affect environmental disclosure. Finding results from Suprpti et al. (2019); Qa'dan & Suwaidan (2019) prove that institutional ownership has a significant positive effect on environmental disclosure. However, Ismail et al. (2018); Solikhah & Winarsih (2016) find that institutional ownership does not affect environmental disclosure.

The objective of this study is to analyze the effect of company size, industry type, profitability, company age, environmental performance, and institutional ownership. The originality of this research is found in the object of research, which includes manufacturing companies in Indonesia, Malaysia, and Thailand. Manufacturing companies are companies that have various types of industries. These three countries were chosen because they are in the category of developing countries where the level of environmental disclosure is still low.

Legitimacy theory, stakeholder theory, and signal theory are theories that applied in this research. Legitimacy theory is a theory that explains the recognition needed by companies for sustainability. Companies that carry out their operational activities in accordance with the limitations that exist in society will get legitimacy (Fashikhah et al., 2018). Stakeholder theory is theory related interaction between companies and their stakeholders. Types of stakeholders consist of main stakeholders and supporter stakeholders (Maulia & Yanto, 2020).

Main stakeholders include shareholders, investors, employees, managers, suppliers, and business partners. Supporting stakeholders include environmental interest groups, organizations, media, academic,

and competitors. Signal theory is a theory related to the disclosure of company information that can be used as a guide for investors. An annual report is a signal for external parties who provide information, one of which is information related to the environment.

Large companies have stakeholders in large numbers and complex operational activities. Stakeholder theory says that large companies have more responsibility for environmental disclosure (Fashikhah et al., 2018). This is due to greater push from the community to avoid large impacts compared to small companies (Ghozali & Chariri, 2014). Wide environmental disclosure can prove that the company has good environmental management so that it can be used as a signal to external parties and gain legitimacy from the community. Istiqomah & Wahyuningrum (2020); Wahyuningrum et al. (2020); Wahyuningrum & Budiharjo (2018); Rahmawati & Budiwati (2018); Ismail et al. (2018) proved that company size has a significant positive effect on environmental disclosure.

H₁: Company size has a significant positive effect on environmental disclosure

Different types of the industry will lead to different levels of sensitivity from society. Sensitivity is the response of an environment due to company activities (Solikhah & Winarsih, 2016). High-profile companies have a greater responsibility so that they can contribute in terms of preventing environmental impacts. Stakeholder theory states that high-profile companies have a large number of stakeholders, thus pushing companies to disclose information about the environment. Kustina & Hasanah (2020) divided industry types into 2, namely high profile and low profile. High-profile companies include forestry, fisheries, timber, mining, construction, food and beverage, tobacco, paper, cable, chemical, plastics and glass, automotive, metal, steel, and pharmacy. Meanwhile, the low profile categories are textiles, footwear, adhesives, cement, ceramics, household appliances, electronics and office equipment, transportation, clay, wholesale and retail, photographic equipment, stone, banking concrete, credit agencies other than insurance, banks, real estate, securities, and property. Wahyuningrum & Budiharjo (2018); Dewi & Yasa (2017) proved that industry type has a positive effect and direction on environmental disclosure.

H₂: Industry type has a significant positive effect on environmental disclosure

Good financial performance can be proven through high profitability of a company (Devie et al., 2019). Companies with good financial conditions drive extensive environmental disclosure so that they can reflect positive firm values in accordance with legitimacy theory. In accordance with stakeholder theory, companies have a responsibility to convince their stakeholders that the profits, which have been obtained can help companies maximize environmental disclosure, and companies with good financial performance can be used as guidance for investors in considering economic decisions. Research results from Purwanto & Nugroho (2020);

Ismail et al. (2018); Dewi & Yasa (2017); Ohidoa et al. (2016) prove that profitability has a positive effect and direction on environmental disclosure.

H₃: Profitability has a significant positive effect on environmental disclosure

The length of a business operating can affect the extent or not of information disclosure (Arjanggie & Zulaikha, 2015). Legitimacy theory states that companies need verification from stakeholders, which becomes evidence that they have carried out operational activities in line with values that exist in society. Environmental disclosures can help companies gain legitimacy. This is due to old companies having pressure from large stakeholders (Rahmawati & Budiwati, 2018). Istiqomah & Wahyuningrum (2020); Wahyuningrum & Budiharjo (2018); Rahmawati & Budiwati (2018); Welbeck et al. (2017) proved that company age has a positive effect and direction on environmental disclosure.

H₄: Company age has a significant positive effect on environmental disclosure

Environmental performance measurement uses ISO 14001. ISO 14001 is an international certification standard regarding the environment. Companies with ISO 14001 certification prove that they have obtained legitimacy from related parties that they have met the standards in an effort to preserve the environment (Orcos & Palomas, 2019). Companies with ISO 14001 certification are able to carry out operational activities by paying attention to the impacts. Thus, companies with ISO 14001 certification are expected to be able to make wider environmental disclosures. Research results of Istiqomah & Wahyuningrum (2020); Maulia & Yanto (2020); Suhardjanto et al. (2018) prove that environmental performance has a significant positive effect on environmental disclosure.

H₅: Environmental performance has a significant positive effect on environmental disclosure

Institutional ownership is the proportion of sha-

re ownership by institutions. These institutions include banks, insurance companies, pension funds, foundations, investment companies, and companies in the form of Limited Liability Companies and other institutions, both local and foreign (Sari et al., 2013). The role of the board in monitoring the company's performance can be replaced by institutional investors so as to reduce problems and acts of fraud. Institutional ownership is one type of concentrated ownership. Companies with concentrated ownership will affect firm value, including the environment. This shows that large institutional ownership means companies can disclose more information. Suprapti et al. (2019); Qa'dan & Suwaidan (2019) showed that institutional ownership has a significant positive effect on environmental disclosure.

H₆: Institutional ownership has a significant positive effect on environmental disclosure

RESEARCH METHODS

This study used a quantitative method with secondary data types with a sample of manufacturing companies listed on the Indonesia Stock Exchange (IDX), Bursa Malaysia (KLSE), and the Thailand Stock Exchange (SET) for the 2019 period. There was a research sample of as many as 93 analysis units. The criteria used in the study are shown in table 1.

The dependent variable used in this study was environmental disclosure. The independent variables in this study include company size, industry type, profitability, company age, environmental performance, and institutional ownership. The operational definition of each variable is presented in table 2.

The data collection used documentation techniques based on annual reports, sustainability reports, and company websites. IBM SPSS Statistic version 25 was used as a statistical tool in this study. Descriptive statistical analysis, classical assumption test, multiple linear regression analysis, and hypothesis testing were used as research methods. Multiple regression equation is shown in equation 1.

$$ED = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{TYPE} + \beta_3 \text{ROE} + \beta_4 \text{AGE} + \beta_5 \text{ISO14001} + \beta_6 \text{INSTS} + e \dots\dots\dots(1)$$

RESULTS AND DISCUSSION

The descriptive statistical test is used to describe each variable shown in table 3. In addition, the Kolmogorov-Smirnov test is used to test the normality of the data with a significance value of 0.081 (> 0.05) so that the data are normally distributed. The sample in this study is free from multicollinearity symptoms because each variable has a VIF value <10 and a tolerance value >0.10. The run test is used to determine the symptoms of autocorrelation. The result of the run test shows that the significance value is 0.252 (> 0.05) so it shows that the data are free from autocorrelation symptoms. The glejser test is used to detect symptoms of heteroscedasticity. The resulting significance level is above 0.05 on each variable so that there is no heteroscedasticity.

The coefficient of determination in this study is

Table 1. Sampling Procedure

No	Criteria	IDX	KLSE	SET
1	Manufacturing companies listed on the IDX, KLSE, and SET for the period 2019	122	115	93
2	Companies that did not issue <i>annual reports and sustainability reports</i> in 2019	(0)	(0)	(0)
3	Companies that do not have complete data related to research variables	(71)	(86)	(62)
4	Outlier	(13)	(2)	(3)
	Analysis Units	38	27	28
	Total Analysis Units		93	

Source: Data processed, 2021

Table 2. Operational Definition of Research Variables

No	Variables	Definition	Indicator
1	Environmental Disclosure	Information regarding company activities that have an impact on the environment (Wahyuningrum et al., 2020)	Environmental disclosure items based on GRI Standard 2016 $ED = \frac{n}{30} \times 100\%$
2	Company size	A value that shows the small-large size of a company (Fashikhah et al., 2018).	SIZE $LN(\text{Total Asset})$
3	Industry Type	Type of business run by the company (Purwanti & Nugroho, 2020).	TYPE 1 = high profile 0 = low profile
4	Profitability	The ability of companies to generate profits (Janamrung & Issarawornrawanich, 2015).	ROE $\text{Net Profit} / \text{Total Equity}$
5	Company age	The age when companies operated which is calculated from the date of company listing until December 31, 2019 (Wahyuningrum & Budiharjo, 2018).	AGE $LN(\text{Total Month})$
6	Environmental Performance	International standards related to management system control in environmental aspects (Rahmawati & Budiwati, 2018).	ISO14001 1 = ISO 14001 0 = non ISO 14001
7	Institutional Ownership	The proportion of shares by institutional investors in the company (Qa'dan & Suwaidan, 2019).	INSTS The number of institutional shares / number of shares outstanding.

Source: Data processed, 2021

0.148, which means that 14.8% of the dependent variable is influenced by the research model, while 85.2% is influenced by external factors. The regression equation is shown by equation 2 and summary of hypothesis testing in table 4.

$$ED = -25.836 + 2.431 \text{ SIZE} + 0.961 \text{ TYPE} - 0.125 \text{ ROE} - 5.355 \text{ AGE} + 6.962 \text{ ISO 14001} + 0.132 \text{ INSTS} \dots\dots(2)$$

The Effect of Company Size on Environmental Disclosure

Large companies have complex activities and large impacts on the environment. The public pay more attention to large companies. According to signal theory, companies need to make environmental disclosures because it gives a signal that the companies are operating well and paying attention to the environment for survival in the long term. In line with the findings of Istiqomah & Wahyuningrum (2020); Wahyuningrum et al. (2020); Ismail et al. (2018); Welbeck et al.(2017).

The Effect of Industry Type on Environmental Disclosure

The data on this research are dominated by companies that are in the high-profile category. High-profile companies do not necessarily make more environmental disclosures than low-profile companies. Society is one part of the stakeholder who becomes a factor in the sustainability of a company. Society will put pressure on companies that have a big impact on the environment due to their business operations so they do not focus on certain types of industries (Wigrhayani, 2019). In line

with the research results of Ismail et al. (2018); Chaklader & Gulati (2015).

The Effect of Profitability on Environmental Disclosure

The high level of profitability generated by the company is not a measure for companies in disclosing information about the environment widely. Companies will provide more extensive information when the ability to generate profits is above the average industry (Rahmawati & Budiwati, 2018). This is because the disclosure of information requires high environmental costs. Based on the research sample used, the majority

Table 3. Descriptive Statistics Test Results

	N	Min	Max	Mean	Std. Dev
SIZE	93	25.42	33.49	28.25	1.45
TYPE	93	0	1	.65	.48
ROE	93	.02	26.20	9.39	6.59
AGE	93	3.71	6.27	5.39	.57
ISO 14001	93	0	1	.41	.49
INSTS	93	1.47	99.95	56.18	31.34
ED	93	3.33	66.67	23.62	15.29
Valid N (list-wise)	93				

Source: Processed secondary data (2021)

Table 4. Conclusion of Hypothesis Results

NO	Statement	Coefficient	Sig	Results
1	Company size has a significant positive effect on environmental disclosure	2.431	0.037	Accepted
2	Industry type has a significant positive effect on environmental disclosure	0.961	0.759	Rejected
3	Profitability has a significant positive effect on environmental disclosure	-0.125	0.598	Rejected
4	Company age has a significant positive effect on environmental disclosure	-5.355	0.061	Rejected
5	Environmental performance has a significant positive effect on environmental disclosure	6.962	0.031	Accepted
6	Institutional ownership has a significant positive effect on environmental disclosure	0.132	0.012	Accepted

Source: Data processed, 2021

of companies have low profits so they do not want to submit voluntary environmental disclosures and disrupt the company's financial condition. In line with the findings made by Rahmawati & Budiwati (2018); Junita & Yulianto (2018); Djuminah et al. (2017).

The Effect of Company Age on Environmental Disclosure

Company age does not affect environmental disclosure in this study. Companies that have a longer life are not affected by disclosing more detailed environmental information in annual reports (D'Amico et al., 2016). In contrast to young companies that are still building legitimacy, environmental disclosure is one of the information that must be presented completely. This shows that broad environmental disclosure does not come from the length of time a company has been in existence. In line with the finding results of Sunaryo & Mahfud (2016); D'Amico et al. (2016).

The Effect of Environmental Performance on Environmental Disclosure

ISO 14001 is an international standard that is used as evidence that the company has carried out its operational activities in accordance with the surrounding environment. In line with the legitimacy theory which said that companies with a good level of environmental management have ISO 14001 certification. Companies with ISO 14001 certification are able to make wider environmental disclosures because the company values in accordance with values in society and the company has complied with good environmental management to attract sympathy and legitimacy from society (Maulia & Yanto, 2020). In line with the research results of Maulia & Yanto (2020); Suhardjanto et al. (2018).

The Effect of Institutional Ownership on Environmental Disclosure

Institutional ownership is the proportion of shares owned by institutional investors. These institutions include investment companies, foundations, insurance, pension funds, banks, and companies in the form of Li-

mitted Liability Companies and other institutions, both local and foreign. The existence of institutional investors is an effective tool in monitoring. According to stakeholder theory, institutional investors have experience and power in protecting the interests of shareholders' rights as a whole who are part of the company's stakeholders. This pushes companies to make transparency one of which is related to the environment (Solikhah & Winarsih, 2016). In line with the findings of the previous studies conducted by Suprapti et al. (2019); Qa'dan & Suwaidan (2019).

CONCLUSIONS

This research proves that large companies equipped with ISO 14001 certification and having a percentage of institutional ownership can affect environmental disclosure. This is due to the strong effect of stakeholders. Stakeholders have an important effect on the pressure that will be given to the company. Stakeholders will put pressure on companies that cannot control the impact of their operational activities on the environment. Based on the research sample, it shows that the majority of companies have low profits so there is no need to disclose voluntary things. Older companies have experience in disclosing environmental information, in contrast to younger companies which still need legitimacy by disclosing environmental information more broadly. Thus, industry type, profitability, and company age in this study do not affect environmental disclosure. Suggestions for further researchers are to take research objects in developed countries for example Singapore, Japan, and South Korea by taking all corporate sectors so that the results are more varied and can add gender diversity variables. Developed countries are countries that comply with information about the environment. Females have an active, disciplined, and organized character. This is in accordance with the role of the board of commissioners who have an active involvement in the company, one of which is the disclosure of environmental information. The female board of commissioners is assumed of having more participation and are active so that they can contribute in terms of wider corporate environmental disclosure.

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