ICGA 2018

The 2018 Fifth International Conference on Governance and Accountability
"Innovating Sustainability : Commitment to Environmental Practices"
BW Suite Hotel Belitung- Bangka Belitung, Indonesia

Number : 124/OC/ICGA/06/2018
Re : ICGA 2018 Letter of Acceptance
Authors Paper Title : Corporate Social Environmental Responsibility Expenditure, Foreign Investment And Corporate Financial Performance

Dear **Faisal Faisal,**

On behalf of the Conference Committee, we are pleased to inform you that your paper has been accepted for presentation at The 5th ICGA, 2018, "Innovating Sustainability : Commitment to Environmental Practices", which will be held 28-30 August 2018 in BW Suit Hotel, Belitung Bangka Belitung, Indonesia.

You are required to register, make payment, attend and present the research paper at one of the parallel sessions. The schedule of a parallel session will be informed later. The time for each presentation will be about 20 minutes including discussion.

In order to appear on the conference program, you should submit a full article in MS word format by following the attached template, registration form, payment confirmation, and letter of publication agreement not more than 05 August 2018.

Attached in this email:
1. LOA pdf
2. Full paper template ICGA 2018
3. Registration form
4. Payment guidelines
5. Letter of publication agreement

If you have any other inquiries, please do not hesitate to e-mail us.
We are looking forward to meeting you at the conference.

Bandar Lampung, 16 June 2018
Sincerely,

Dr. Farichah,S.E.,M.Si, Akt
NIP196206121990100200 1

ICGA 2018

The 2018 Fifth International Conference on Governance and Accountability

THE RELATIONSHIP BETWEEN ENVIRONMENTAL PERFORMANCE AND THE EXTENT OF ENVIRONMENTAL DISCLOSURE

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ABSTRACT

This study examines the relationship between environmental performance and the extent of environmental disclosure. Sample of this study consists of thirty-five high profile companies. The environmental performance is measured based on the results of the PROPER assessment and the extent of environmental disclosure index by using GRI checklist items. This research applies content analysis, descriptive and inferential statistical analysis. The result shows that on average, the extent of environmental disclosure is low (22.5%). Mining companies provide highest environmental disclosure (58.2%) followed by chemicals (21.4%), utilities (19.0%), pulp and papers (16.5%), industrial (11.0%), and oil and gas (4.2%). The analysis also presents that environmental performance doesn't have effect on level of environmental disclosure. This result suggests that high environmental performance may not encourage companies to communicate more environmental issues. This finding indicates that motivation for company to disclose environmental information is not always based on the legitmacy perspectives but might be as accountability form.

Keywords: environmental performance, environmental disclosure, legitimacy, high profile industry, PROPER

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1. INTRODUCTION

Currently, issues on environmental disclosure and environmental performance are still attracted the attention of academics. This is because the findings of the prior studies are still varied (Campopiano and Massis (2015); Patten, 2005; Plumlee, Brown, Hayes, and Marshall, 2015). Knowing to what extent environmental disclosure and environmental performance is important, as it can provide additional information to assess corporate performance (Clarkson, Fang, Li, and Richardson, 2013). Corporate environmental performance provides useful information to stakeholders (K.E. Hughes, 2000). Previous studies suggested that corporate environmental performance as a form of ethical actions of corporate (Cormier, Magnan, and Morard, 1993), moral responsibility (Woodward, Edwards, and Birkin, 1996), compliance with regulations, corporate longterms performance indicator (Clarkson *et al.*, 2013). One of the corporate performance indicators is financial benefits. For example, PT. Bukit Asam Tbk has financial benefits such as increased in profit, community empowerment and competitiveness after transformed from coal mining company into a provider of environmentally renewable energy (PROPER[1],2015).

[1] PROPER is an environmental management performance appraisal program based on the Ministerial Decree of State Minister for the Environment No. 35 (1995).

The report released Program Pemeringkatan Kinerja Perusahaan (PROPER) in 2016 suggested that the environmental performance of Indonesian companies is still low. In addition, from 1930 companies, the majority of companies (73.68%) recently categorized as blue (fairly well). It shown by the low level of utilization of hazardous materials and toxic waste (reduce, recycle, refuse/3R) in industry sectors. For example, in 2016, the utilization of B3 in mining, oil and gas industries is only 18.16% and manufacturing is13.46%. Based on the findings of the report, it showed that the environmental performance of Indonesian companies has not been satisfactory. The low of the performance may be caused by low of awareness and adherence to the regulations.

In terms of studies on the relationship between environmental performance and environmental disclosure, the findings of previous studies are varied. Some studies suggested that company that has a good environmental performance tend to disclose more information (Clarkson, Li, Richardson, and Vasvari, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007). In contrast, Patten (2002) found a negative correlation between environmental performance and the extent of environmental disclosure, while Ingram and Frazier (1980) and Patten (2005) concludes there is no correlation. Due to the inconsistency of these findings, this study is aimed to investigate the relationship between environmental performance and environmental disclosure. Heirs et al. (2017) and (Waris *et al.*, 2017) argued that the existence of a difference public pressure in environmental responsibility between developing countries (such as Indonesia) and developed countries. This study focused on high profiles companies listed companies on Indonesia Stock Exchange (IDX) in 2016. The high profiles companies such as mining, pulp and paper, oil and gas, chemicals, utilities, were chosen as their operations have a significant impact on environment conditions (Clarkson *et al.*, 2008, 2011; Faisal and Achmad, 2014) (Hasseldine, Salama, and Toms, 2005; Patten, 2005).

2. LITERATURE REVIEW

Deegan (2007) and Hasseldine *et al.* (2005) argued that company with bad reputation will left behind by the market. Furthermore, they explain that company that is not operating in harmony with the environment and society can lead to high costs until absence of approval from community. Corporate environmental disclosure is one of media communications to stakeholders in oreder to legitimize corporate's operations (Cho and Patten, 2007; Neu, Warsame, and Pedwell, 1998; Patten, 2005) and fulfilling social contract by complying with regulations in order to achieve corporate accountability (Tilt, 1994; Woodward *et al.*, 1996). Environmental disclosure can also improve the perception of stakeholders about corporate environmental management (Cho and Patten, 2007). Level of sensitivity to impact of company operation on environmental may affect extent of environmental disclosure (Cowen, Ferreri, and D.Parker, 1987; Hackston and Markus J. Milne, 1996; Patten, 1991, 1992; Plumlee *et al.*, 2015). Past studies showed that company that potentially cause damage to environment such as high profile companies disclosed more information than low profile companies (Clarkson *et al.*, 2011; Clarkson *et al.*, 2013; Hasseldine *et al.*, 2005).

Environmental performance can also drive the extent of environmental disclosure. The impact of environmental performance disclosure, whether it brings favorable, neutral, or unfavorable to company performance will become company's risks (Cormier and Magnan, 1999). Environmental disclosure can be used as a means of legitimizing the company (Cho and Patten, 2007). In addition through the disclosure of the environment, the company's attempt to gain legitimacy is by participating in environmental performance assessments conducted by external parties. A good environmental performance is ideally followed by extensive disclosure. Positive correlations were found between the ratings conducted by

external and independent party regarding the company's environmental responsibilities and the disclosure levels of CSR (Clarkson *et al.*, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007).

The disclosure of actual performance on pollution emissions, conservation and recycling efforts provides critical information for stakeholders to assess environmental performance, assess long-term company commitment, and for investors can also be used to assess the impact of environmental compliance related to future operations and financial performance (Clarkson *et al.*, 2013). Environmental performance based on toxic emissions can be used by external management and stakeholders to examine the relationship of future environmental liability disclosure and the market value of the company's equity (K.E. Hughes, 2000). The risks caused by company's operation related with the level of environmental disclosure. Based on the information content revealed, (Cormier and Magnan, 1999) found companies producing high levels of pollution such as pulp and paper revealed more environmental information than oil, chemical and steel, metals and mining companies. Pulp and paper mills become the target of pollution-consuming stakeholders, because they consume large amounts of water and are usually located near rivers that are often located near population centers. Plumlee *et al.* (2015) also shows that industries with a large impact on the environment have higher disclosure values and firms more often disclose positive environmental information than neutral and negative ones. Cho and Patten (2007) show different findings. Environmental-sensitive companies often disclose negative information rather than neutral disclosure, but vice versa for companies in insensitive industries, in order to improve stakeholders' perceptions of environmental management.

The former researches showed that the increasing of environmental performance disclosure correlate with the extent of environmental disclosure. A positive correlation between an external rating based on the UK Index Environmental Engagement and the extent of disclosure was found (Staden and Hooks, 2007). These findings suggest that environmental disclosure reflects company responsibility to the environment and is a form of support for the development of legitimacy theories.Result findings of (Clarkson *et al.*, 2008) and (Clarkson *et al.*, 2011) are consistent, i.e. there is a positive relationship between environmental performance and the level of discretionary environmental disclosure for the five companies classified as the most polluting industry in the United States. High pollution-generating industries, based on Toxics Release Inventory (TRI) measurements, provide a wider discretionary environment disclosure, and vice versa. Variations in disclosure levels among the five types of industries (i.e. pulp and paper, oil refineries, chemical and steel, metals, and mining) aligned also with findings (Plumlee *et al.*, 2015). These results show that the company seeks to legitimize, if its activities threaten the environment (Clarkson *et al.*, 2011).

Plumlee *et al.* (2015) also found a positive correlation between environmental performance and environmental disclosure. In his research, companies with good environmental performance have good environmental disclosure, whereas companies with poor environmental performance have poor environmental disclosures as well. Good environmental performance is measured by the sum of environmental performance strengths, while poor environmental performance is measured by the number of concerns of the company's environmental performance (the sum of environmental performance concerns). Environmental performance instruments refer to Kinder, Lydenberg, and Domini's (KLD's) Socrates database.

3. RESEARCH METHOD

This research is characterized as descriptive and exploratory, as seek to identify the application of content analysis, descriptive statistics and correlation analysis. This research takes a quantitative approach

to examine the relationship between Environmental Disclosure Index (ENVID) and Environmental Performance . Such an approach is used because it is focused on explaining associations between the two variables and addressing specific questions about a clearly defined topic. By using a quantitative approach in such a disclosure study, the findings may be more objective and informative for stakeholders and other parties. The stated purpose of this research is to describe the environmental performance, the extent of environmental disclosure and analyze the relationship between environmental performance and the extent of environmental disclosure of companies. Legitimacy theory is the theoretical framework within which these purposes will be pursued. The research approach adopted to achieve these purposes encompasses population of the study, data collection, measurement variables, and statistical analysis.

This study is a population study. It means that all members of the population are observed in accordance with the research variables. Thus there is no sampling, and therefore the results of the analysis are the conclusions for the population. The population of this study is public companies in Indonesia that cause high pollution for the environment, namely companies engaged in the field of pulp and paper, chemicals, oil and gass, metals and minning, and utilities as investigated by (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013). The companies were also classified based on PROPER criteria and Bloomberg database. The PROPER classification include the following type of companies, that are, chemicals, pulp and paper, industrial metal and mining, mining, oil and gas, and utilities (PROPER, 2016), while classification according to Bloomberg database include basic industry and chemicals (animal feed; cement, ceramics, and glass porcelain; chemicals; pulps and paper; metal and allied products); mining (crude petroleum and natural gas production, cool mining, and metal and mineral mining) and infrastructure utility & Transportation (Bloomberg, 2018). Another criterion for members of the population is companies listed in the 2016 PROPER attendance list which are also listed in Indonesia Stock Exchange (BEI) for the period of 2016 and publish their annual report 2016 through www.idx.co.id.

There are three steps in determine the member of the target population. First, identify the membership criteria based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) and also PROPER (2016). In this step, among 1930 companies listed in PROPER 2016, there are 578 companies include 52 chemical companies, 31 pulp and paper companies, 63 industrial metal dan mining companies, 88 mining companies, 216 oil and gas companies, and 128 utilities companies. The Second step, we identify companies that follow PROPER 2016 and at the sametimes are also listed in BEI 2016. This second step result 22 companies. Finally, in the third step we identify companies based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) Clarkson et al ., 2008) criteria adjusted by Bloomberg (2018) classification which result 35 companies. The list of companies that are member of the population is in Appendix 1. The use of 2016 data is due to the importance of a one-year delay to observe company responses to GRI statements (2015) that reports published after 31 December 2015 should be prepared in accordance with G4 guidelines.

After selecting the companies and in order to operationalize this study, the data were collected. 35 annual report from 35 companies were read and content analysis was applied to identify the required data. It should be noted that not all of the 578 high risk companies listed in PROPER were included in the target population. It is because the PROPER assesment can be followed by subsidiary companies or company branches at a specific area, but the company annual reporting listed in BEI is done by the parent company. It is why 578 companies reduced to 35 companies as the member of the target population. This research was done by assumption that if one parent company has PROPER rank from more than one subsidiary company in 2016 than we choose the highest rank as the data.

In order to analize the data, we have used the content analysis technique which seeks to reveal the description of masseges contents based on systematic and objectives procedure (Bardin, 2004 as cited in Altoe, Panhoca, and Espejo (2017)). The information content in the massages was recorded (measured). The recording is the specific segment of content that characterized by placing it in a given category.

This research focusing on two main variables, that are, environmental performance and and the extent of environmental disclosure. The measurement of environmental performance research variables is taken from the PROPER 2016 assessment data under the control of the Ministry of Environment and Forestry of the Republic of Indonesia. Environmental performance is measured by the following rankings: score of five (gold predicate / excellent), score of four (green predicate / good), score of three (blue predicate / enough), score 2 (red predicate / bad), and score 1 (black predicate / very bad).

Measurement of the extent of environmental disclosure refers to the indicators according to GRI 2013 that are presented in detail in Appendix 2. The reasons for the use of GRI guidelines by 2013 because they meet global standard qualifications that are internationally accepted and universal (Laine, 2009). Schaltegger (1997) adds that internationally recognized ecological standards have the certainty and guarantee the minimum level of information quality. Thus, the measure indicator of the extension levels has met the validity test requirements. The results of the measurement of the extension levels are expressed in index numbers. Index provides a uniform system of input and coding and is essential for organizing data in each study for a computerized database (Clarkson, 1995). Furthermore, index was given generally to check for the presence or absence of specific items of information. The Environmental Disclosure Index for company j (ENVDj) is difined as follows:

$$ENVD_j = \frac{\sum_{i=1}^{n_j} x_{ij}}{n_j}, \quad x_{ij} = \begin{cases} 1 & , \text{if } i \text{ th item is disclosed} \\ 0 & , \text{if } i \text{ th item is not disclosed} \end{cases}$$

This research employ several statistical technique to pursue the objectives of the study. Descriptive statistics and cross classification technique will be used to elaborate the characteristic of the companies based on several aspect such as environmental risk categories that mostly disclosed by the companies. It can also be used to study the trend and indeph analysis concerning the consistency of environmental performance and the extent of environmental disclosure. Gamma coefficient is used as the main statistical techniques to explore wether there is ascociation between environmental performance and the extent of environmental disclosure or not. This nonparametric techniques proposed by Goodman and Kruskal (1979). is used because we consider variable that measured in ordinal scale i.e the environmental performance. To do so, the disclosure index measured in ratio scale has to be converted into ordinal scale by applying rank transformation so that the two variables both have the same scale of measurement.

4. FINDING AND DISCUSSIONS

The aims of this study were to explore the level of environmental disclosure and the relationship between environmental performance and environmental disclosure in high risk population companies in Indonesia. This section provides an overview of the environmental disclosure and environmental performance of the 35 population companies that contains many types of company as shown in Figure 1. The type of companies is dominated by chemical and industrial metal and mining, followed by mining, pulp and paper utilities and finally oil and gas.

Figure 1. Number companies by type of industry

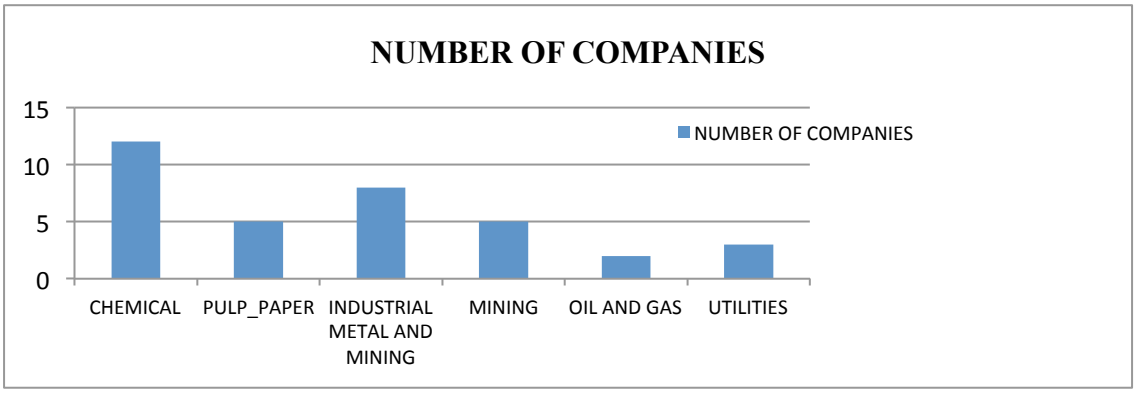

Table 1. PROPER rank by type of industry

	PROPER RANK				TOTAL
TYPE OF COMPANY	RED	BLUE	GREEN	GOLD	
CHEMICAL	0	9	3	0	12
PULP AND PAPER	0	5	0	0	5
INDUSTRIAL AND MINING	1	7	0	0	8
MINING	0	2	2	1	5
OIL AND GAS	0	1	0	1	2
UTILITIES	1	2	0	0	3
TOTAL	2	26	5	2	35
Percentage (%)	5.7	74.3	14.3	5.7	

Based on environmental performance represent by PROPER rank (Table 1), most companies achieve Blue (74.3%), followed by Green (14.3%), Red and Gold 5.7% each. It shows that most of the target population companies have already follow the regulation and a small number of companies (2 companies) has already exceed the regulation and having efficient resourches management and well implementation in social responsibility. The two companies that achieve gold rank show their excellency and consistency in environmental management, ethics, and social responsibility. This finding shows that Indonesia high risk companies have already follow the Indonesia environmental management regulation (PROPER, 2016). This finding is also support the former result that regulation may improve the environmental performance (Ika *et al.*, 2017). The small numer of companies that achieve green and gold rank indicates that the implementation of social responsibility normatively is still challenging (Ketaren, 2014). Furthermore, programs that empowering the environmental awareness is needed (Waris *et al.*, 2017).

Table 3. Descriptive statistics by PROPER rank

PROPER rank	Mean of disclosure index	Standard deviation
RED	0.114	0.081
BLUE	0.186	0.171
GREEN	0.417	0.233
GOLD	0.357	0.384
TOTAL	0.225	

Table 3 shows the mean of disclosure index based on their proper rank. Generally, it indicates the low level of environmental disclosure (grand mean 0.2245). This fact support the former research result that were done in Indonesia (Mirfazli, 2008; Setiawan and Darmawan, 2011). The reasons of this condition can be describe as follows, 1) the implementation of environment disclosure in Indonesia is still voluntary and haven't yet regulate base on Finance Accounting Standard (*SAK*) (Fauzi, 2014). The consequence is that company report the disclosure content freely (Laan, 2009); 2) The Company has only few social activity (Mirfazli, 2008); 3) CSR's disclosure content in Indonesia provide only information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014; Sharma, 2013) and most of them have incomplete (quantitatively and qualitatively) information disclosure with respect to material, energy, water, biodiversity, emission, waste or garbage, product and services, compliance, pollution, expenditure and environmental investment, supplier assement environmental, and environmental complaint mechanism, as global requirement (GRI, 2015), and 4) environmental disclosure haven't yet treated as a measure of environmental performance like finance performance which happened in developed countries (Sharma, 2013). Furthermore, Waris *et al.* (2017) say that in developing country people give lower pressure to the company in term of environmental responsibility due to the lack of environmental awareness rather than in developed countries.

Table 4 shows the number and their percentage of companies that disclose any categories with respect to environmental issues. The table shows that waste and garbage is disclosed by 68.6% companies. It means that waste and garbage is the most important category that prioritized by companies to be disclosed. Infact, there are four other categories that also have quite high priority (more than 50%), i.e emission, energy, expenditure and environmental investment. This findings indicate that companies have implement good environmental management system to improve the absolute efficiency of reducing waste (PROPER, 2015). Also, it support Clarkson *et al.* (2013) who stated that the performance indicator disclosure with respect to emission, actual pollution, conservation, and recycle activities give critical information to the stakeholders in evaluate the long term environmental performance and environmental compliance impact.

Table 4. Descriptive statistics by disclosure category

Category	Number of company	%	Category	Number of company	%	Category	Number of company	%
Material	6	17.1	emmision	22	62.9	transportation	5	14.3

Energy	22	62.9	effluents and waste	24	68.6	expenditure and environmental investment	19	54.3
Water	9	25.7	product and service	15	42.9	supplier	9	25.7
Biodiversity	20	57.1	compliance	13	37.1	complaint mechanism	9	25.7

Table 5 shows the cross classification between the type of company and the environmental disclosure represented by the category of the extent of disclosure. In the last column present the mean value of disclosure index. It shows that mining company is the most (58.29%) in disclosing environmental information followed by chemical (21.43%) and others with less than 20 percent on the average. Based on Table 5, there is a big discrepancy between type of company in disclose environmental information which is also consistent with Tan, Benni, and Liani (2016) and Trireksani and Djajadikerta (2016). Test of association between type of company and the category of the extent of disclosure using contingency coefficient (Table 6) shows the same conclusion (significant under α=0.05).

Table 5. A cross classification between type of company and environmental disclosure

Type of Company	The category of the extent of disclosure			Total number of company	Mean of disclosure index
	1	2	3		
CHEMICAL	9	3	0	12	0.2143
PULP AND PAPER	4	1	0	5	0.1657
INDUSTRIAL AND MINING	8	0	0	8	0.1107
MINING	0	1	4	5	0.5829
OIL AND GAS	2	0	0	2	0.0429
UTILITIES	2	1	0	3	0.1905
Total	25	6	4	35	

Table 6. The extent of disclosure using contingency coefficient

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.688	0.000

The mining company presented moderate level of disclosure information support is consistent with Trireksani and Djajadikerta (2016). The mining company disclose more than other type of company because they have greater operation area that may impact to the larger environment. This finding support the legitimacy theory that the greater the impact of company to the environment, the more widespread its environmental disclosure (Clarkson *et al.*, 2008).

Table 7. Extent of Disclosure by category

	The category of the extent of disclosure			
PROPER RANK	1	2	3	Total
RED	2	0	0	2
BLUE	20	5	1	26
GREEN	2	3	0	5
GOLD	1	0	1	2
Total	25	8	2	35

Table 7 shows cross classification between environmental performance which is represented by PROPER RANK and environmental disclosure which is represented by the category of the extent of disclosure. Numbers in the cells is the number of company satisfied the cross category. The extent of disclosure is categorized into three categories in term of the percentage of environmental indicator being disclosed, i.e 1= less than 30%, 2=disclose 30%-60%, and 3=disclose more then 60%. Generally, the table demonstrate the awareness of companies in disclosing environmental issues in their annual report. Most of the companies, which are 25 out of 35 (71.42%), disclose only less than 30% with respect to environmental issues including 20 companies having blue PROPER rank and, unfortunately, include one company with gold rank. On the otherhand, there is one company with gold rank disclose more than 60% as what we expected that PROPER rank should be consistent with the extent of disclosure. This finding shows that companies having good environmental performance (blue, green, and gold) are not otomatically have high percentage (more information) in disclosing the environmental issues (Waras, 2017). Most of the companies inform their environmental performance in the annual report but do not describe their environmental activities in detail.

The above description is also supported by the statistical test of association between environmental performance and environmental disclosure. The Gamma coefficient of association showed in table 4.7 is not significant under α=0.05.

Table 8. The Gamma Coefficient of Association

Gamma	Asymp. Std. Error	Approx. Tb	Approx. Sig.
0.642	0.215	1.847	0.065

Strictly speaking, environmental performance is not associated with environmental disclosure. This finding is the same as the conclusion resulted by Sutantoputra, Lindorff, and Johnson (2012) who say that there is no evidence that good performers disclose more as a way of promoting themselves and separating themselves from poor performance.

Sutantoputra *et al.* (2012) state that, in general (not specifically), disclosure is a company way of promoting environmental awareness to the society and there is an untested complex range of forces that imply non-significance relationship between environmental performance and environmental disclosure. The low extent of environmental disclosure is also show that most of the companies do not reference GRI

as a reporting standard. It means that most of company annual report haven't shown sustainability oriented yet. Some researches showed that social responsibility disclosure content in Indonesia is dominated by information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014) and that Indonesia companies haven't treat equivalently environmental performance, social performance, and finance performance like in developed countries (Sharma, 2013). The low level of environmental disclosure found in this research is also matching with the fact found by Waris *et al.* (2017) that community in developing countries have low awareness with respect to the importance of environmental disclosure.

5. CONCLUSION, LIMITATION AND IMPLICATION

Based on PROPER ranking (PROPER, 2016), most companies have blue rank in environmental management (according to the law), the second largest is green (environmental management goes beyond regulation and efficient in utilizing resources and performs social responsibility well), and the smallest is gold rank (superior and consistent in environmental management and ethical and responsible to the community) and red (environmental management is not in accordance with legislation).

The extent of environmental disclosure referred to GRI (2013) is low. The extent of discloseure and the content varies over type of company. The low level of disclosure indicates that most companies have not follow the standard of sustainability reporting, since the disclosure is still voluntary. Based on disclosure index, the mining companies present the broadest disclosure rate followed by chemical companies, utilities companies, pulp and paper companies, industrial metal and mining companies, and oil and gas companies. Based on the category of environmental disclosure contents, most companies disclose about waste and garbage issues followed by emissions and energy, biodiversity, environmental expenditures and investments. The relatively few are products and services, suppliers, and complaints mechanism, while the least is about material and transportation.

This study found no correlation between environmental performance and the extent of environmental disclosure. That is, high company performance is not always followed by extensive disclosure, and vice versa. The fact that the company's environmental performance and the extent of environmental disclosure are uncorrelated, while enviromental performance is still predominantly blue and the environmental disclosure is low level may explain that the company's environmental activities are intended to enhance the company's reputation that ultimately achieves legitimacy.

The result of this study is limited on a small number of target population and focusing on the high risk company with respect to environment. In the next study need to increase the size of the population, the study period, and add the type of company that has a low risk. The environmental performance used in this study is based on the results of the environmental management performance assessment (PROPER) rating in 2016. In the next research can be developed by using other environmental performance measurements, such as CO_2 concentration and greenhouse gas emission rate.

This study show that one parent company can follow the rating program performance assessment of environmental management as much as subsidiary companies or the number of operating units. Therefore, the ranking of a company varies. This study assumes that the best ranking of environmental performance achieved is being used as the data analysis. Given the use of these assumptions, then in the next research we suggest to use rating assumption that better represents the condition of the company.

In this study, the measurement of the extent of environmental disclosure use the following rule, that is by giving a score of one when the annual report contain information and zero otherwise based on the sub categories of GRI. Considering the contents in each subcategory contains many elements, a score

of one will be given when there is at least one element disclose by the company. In subsequent research, scoring may use more gradations in the form of a more representative scale.

Awareness of environmental management by high risk companies with respect to the environment is increasing. The awareness is showed by the fact that most companies have achieved good enough ratings until very well. In contrast, the facts show that the extent of environmental disclosure is still low. One reason is that environmental disclosure for companies in Indonesia is still voluntary. Sutantoputra *et al.* (2012) also states that voluntary disclosure is not a reliable way of assessing company environmental behavior. For this reason, the government needs to introduce mandatory reporting that will produce publicly available information on the company's environmental performance with various indicators. The implication is to encourage mandatory disclosure of the environment, so that disclosure is not only broad but increasingly qualified.

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KUALITAS NARATIF LAPORAN CORPORATE SOCIAL RESPONSIBILITY: STUDI KORELASI PADA SEKTOR PERBANKAN

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Abstract

This study aims to assess the quality of CSR reporting and test the correlation among narrative quality measurements. The Population of the study consists of 29 banks listed on the Stock Exchange (BEI) in 2015. Based on descriptive statistical analysis, the study found that in general the CSR report quality was low, that was shown by the very low value of the mean of optimism ratio, pessimism ratio, numerical ratio, horizon ratio and complexity, and also a readability index that indicate the high level of difficulty of the CSR report to be read. Meanwhile, there are several banks that have presented an excellent report. The results of Spearman correlation test are (1) There is a strong positive correlation between the ratio of optimism and the ratio horizon, (2) There is a fairly strong positive correlation between the ratio of pessimism and numerical ratio, (3) There is a fairly negative strong correlation between the pessimism ratio and numerical ratio, and also between the horizon ratio and the report complexity (residual word), and (5) the other correlations among variables are weak and very weak.

Keywords: CSR, narrative reporting quality, and readability

Abstrak

Penelitian ini bertujuan untuk menilai kualitas pelaporan CSR dan menguji korelasi berbagai ukuran kualitas naratif. Populasi penelitian ini terdiri dari 29 bank yang terdaftar di BEI pada tahun 2015. Penelitian ini menemukan bahwa kualitas pelaporan CSR rendah, tingkat readability laporan CSR masuk dalam kategori sukar dipahami. Hasil uji korelasi Spearman menunjukkan 1) ada korelasi positif dan kuat antara rasio optimisme dan rasio horison dan antara rasio optimisme dan rasio numerik, 2) ada korelasi negatif dan kuat antara rasio pesimisme dan rasio numerik dan antara rasio horison dan kompleksitas laporan, dan 3) korelasi variabel lain lemah dan sangat lemah.

Kata kunci: CSR, kualitas pelaporan naratif, dan readability

I. PENDAHULUAN

Laporan tahunan (annual reporting) dapat menjadi sarana komunikasi manajemen kepada para stakeholder-nya (Baker dan Kare, 1992) dan laporan tahunan yang memuat tentang Corporate Social Responsibiliy (CSR) dapat juga menjadi strategi (Barkemeyer, 2007; Laidroo dan Oobick, 2013). Pelaporan CSR menjadi strategi legitimasi perusahaan untuk memenuhi kontrak sosial, seperti dijelaskan pula dalam teori legitimasi (Prasad et al., 2016). Salah satu cara melegitimasi perusahaan melalui pelaporan adalah dengan memperhatikan Readability isi suatu narasi laporan CS (Prasad et al., 2016).

Pelaksanaan CSR bagi Perseroan Terbatas (PT) di Indonesia telah diatur dalam Undang-undang Republik Indonesia Nomor 40 Tahun 2007 Pasal 74 ayat 1 dan Peraturan Pemerintah Republik Indonesia Nomor 47 Tahun 2012, Pasal 2. PT, termasuk sektor perbankan, selaku subjek hukum memiliki kewajiban melaksanakan aktivitas CSR dan secara moral mempunyai komitmen untuk bertanggung jawab atas tetap terciptanya hubungan perseroan yang serasi dan seimbang dengan lingkungan dan masyarakat setempat sesuai dengan nilai, norma, dan budaya masyarakat tersebut.

Perbeda dengan pelaksanaannya yang bersifat wajib, pelaporan CSR masih bersifat voluntery bagi PT di Indonesia (Sharma, 2013). Fakta ini tidak menyurutkan kepedulian PT sektor perbankan yang terdaftar di BEI untuk mewujudkan kepedulian terhadap lingkungan dan masyarakat, seperti dikutip dalam laporan tahunan PT Bank Danamon Indonesia Tbk periode tahun 2015 bahwa keberlanjutan dari industri perbankan tidak dapat dipisahkan dari partisipasi masyarakat, sehingga perusahaan berkomitmen untuk selalu melakukan hal yang baik bagi komunitas sekitar. Dengan demikian, laporan CSR harus berkualitas agar dapat dipahami oleh audience yang menjadi target.

Kualitas laporan CSR dapat ditentukan oleh narasinya didasarkan pada informasi yang bersifat naratif (Mutlu et al., 2013). Menurut versi KLD (Kinder, Lydenberg, Domini), laporan CSR yang

berkualitas tinggi lebih memberi informasi terkait dengan strength dan concern rating (Mutlu et al., 2013: 1-2). Pelaporan naratif memberikan informasi incremental untuk membuat keputusan yang lebih rasional bagi pengguna di luar (Merkl-Davies dan Brennan, 2007; Smith et al., 2011; dan Tekfi, 1987).

Mengingat pentingnya pemahaman oleh audience yang menjadi target, penelitian ini akan membahas tentang korelasi berbagai ukuran kualitas naratif dan kualitas pelaporan yang berfokus pada pelaporan Corporate Social Responsibility (SCR) sebagai salah satu strategi bisnis modern. Penelitian ini berfokus pada PT yang bergerak di sektor perbankan, sehingga selanjutnya akan menggunakan istilah bank. Bank-bank yang memiliki komitmen dalam aktivitas CSR-nya maka diyakini memiliki dampak pada keberlanjutan (sustainability) operanya.

II. TINJAUAN PUSTAKA

Berbagai Aspek Pengukuran Naratif Laporan CSR

Pendekatan analisis normatif diklasifikasikan menjadi dua yaitu subjective rating dan semi objective (Beattie et al., 2004). pendekatan analisis normatif terbagi dalam dua klasifikasi besar, yaitu subjective rating dan semi objective. Pendekatan analisis normatif mencakup studi disclosure index dan content analysis. Content analysis terbagi tiga yaitu thematic content analysis, readability studies, dan linguistic analysis.

Tekfi (1987: 262) berkonsentrasi pada faktor linguistik, seperti panjang kata dan panjang kalimat. Sarannya adalah bahwa kata-kata dengan suku kata lebih sedikit lebih mudah untuk dipahami. Kata yang lebih lebih sering digunakan dan membawa makna adalah kata-kata yang singkat, dibandingkan dengan kata dengan suku kata yang lebih banyak dan cenderung kurang biasa digunakan.

Richards dan Staden (2015:285) yang dikutip dari Courtis, (1986); Flory et al., (1992); Steven et al., (1992); Schroeder dan Gibson, (1990); Lehavy et al., (2009); Worthington (1978) menyebutkan beberapa formula untuk menilai readability suatu teks, antara lain: formula Dale – Chall, formula Flesch, Formula Flesch-Kincaid, Formula Fog dan the Cloze procedure.

Tekfi (1987: 267), dalam tinjauan ilmiahnya, berhasil menunjukkan 17 faktor yang mempengaruhi readability dari Gray and Leary's list, sebagian diantaranya adalah (1) average sentence length, (2) percentage of easy word, (3)number of word unknown to 6th grade pupils, (4) number of easy word, dll. Masih banyak formula-formula yang menghasilkan indeks sebagai ukuran readability yaitu Flesh Reading Ease Formula(Courtis,1998), Dale – Tyler dan McClusky, dll. .

Dalam penelitian ini pengukuran kualitas naratif mengacu pada Mutlu et al., (2013) dan Loughran dan Mcdonald (2011) yang menggunakan aspek (1) tone yang terdiri dari rasio kata-kata finansial optimisme (positif) dan pesimisme (negatif), (2) length yang menunjukkan tingkat komplesitas, (3) numerical content yang ditunjukkan dengan rasio informasi numerik, (4) readability yang ditunjukkan dengan SMOG (Simple Measures of Gobbledygook) index, dan (5) horizon content yang berisi tentang rasio kata -kata yang berorientasi ke masa depan. Semua rasio diperhitungkan dengan total seluruh kata-kata yang terdapat dalam laporan CSR.

Korelasi Berbagai Pengukuran Kualitas Naratif Laporan CSR

Smith, et al., (2011: 166 dan 168), dalam penelitiannya menemukan variabel word based dalam the Chairman's Statement secara signifikan berhubungan dengan kinerja perusahaan (corporate performance). Selain itu, secara rinci juga ditemukan bahwa tingkat readability berkorelasi rendah dan tidak signifikan dengan kinerja perusahaan. Mutlu et al., (2013: 21 dan 23) menemukan adanya pengaruh kualitas pelaporan CSR terhadap kinerja ditentukan oleh sejumlah dimensi. Dimensi amount (length, rasio numerik, dan rasio horison) lebih menunjukkan asosiasi antara kualitas laporan CSR dan kinerja CSR, sedangkan dimensi STYLE (pessimistic tone, optimistic tone, dan readability) lebih menunjukkan asosiasi antara kualitas laporan dan forecast error analysis.

Loughrand dan Mcdonald (2011) menemukan korelasi negatif antara penggunaan kata-kata negatif (negatif word) dan ketidakpastian (uncertain) dengan return. Penggunaan sedikit kata-kata negatif dan ketidakpastian direaksi lebih positif oleh pasar. Semua daftar kata yang membentuk teks berkorelasi positif dan signifikan dengan volatilitas return saham. Dengan demikian dapat disimpulkan analisis teks (textual analysis) berkontribusi pada kemampuan pengguna untuk memahami informasi sehingga berdampak terhadap stock return. Selain itu negative words dan positive words menentukan tone yang dapat meningkatkan pemahaman pengguna laporan.

Bozanicet al., (2014) menunjukan berbagai atribut good disclosure, yaitu: readability, tingkat informasi berwawasan ke depan, konkrit (intensitas numerik), dan disclosure yang lebih umum. Sementara semua atribut ini tampak bersifat intuitif, ada sedikit bukti empiris tentang bagaimana atribut disclosure ini mempengaruhi investor dan analis. Temuan yang terbukti kuat bahwa pengungkapan yang berorientasi ke depan (forward-looking information) lebih informatif, sangat sedikit bukti bahwa readability berkorelasi dengan pengungkapan yang bersifat informatif, dan temuan yang aktual adalah pengungkapan yang panjang dan intensitas numerik berkorelasi negatif dengan pengungkapan yang informatif. Kontrol terhadap konten untuk aktivitas evaluasi adalah penting bagi manajer dan regulator dengan mempertimbangkan seni atau pengungkapan

informasi yang bersifat memotivasi.

III.METODE PENELITIAN

Populasi dan Obyek Penelitian

Penelitian ini melibatkan seluruh anggota populasi yaitu bank-bank yang terdaftar di Bursa Efek Indonesia (BEI) pada tahun 2015, yang memenuhi kriteria: (1) menyampaikan laporan pertanggungjawaban sosial (CSR) dalam laporan tahunan perusahaan dan (2) laporan harus disampaikan dalam Bahasa Inggris. Jumlah populasi yang memenuhi kriteria sebanyak 29 bank (lihat lampiran 1) dengan perhitungan jumlah keseluruhan bank sebanyak 43 buah dikurangi (4 bank yang tidak mempublikasikan laporan tahunan, 10 bank tidak menyajikan laporan keuangan berbahasa Inggris.

Variabel Penelitian dan Pengukurannya

Kualitas laporan CSR secara naratif mengacu Mutlu et al., (2013) yang terdiri dari lima aspek (dengan masing-masing proksi) yaitu tone (optimistic tone ratio dan pessimistic tone ratio), readability (Simple Meassure of Gobbledygook (SMOG) index), length (residual word), numerical content (numerical ratio), dan horizon content (horizon ratio). Setiap proksi diukur seperti tampak pada tabel 2 dan hasil pengukuran terdapat pada tabel 7 lampiran 1.

Tabel 1: Pengukuran Setiap Proksi

Proksi	Ukuran
Rasio Optimisme	Jumlah kata-kata positif / jumlah kata dalam laporan CSR
Rasio Pesimisme	Jumlah kata-kata negatif / jumlah kata dalam laporan CSR
SMOG *Index*	Program s*oftware* http://www.readabilityformula.com/free-readability-formula-tests.php
Residual Word	Menentukan *Word* yaitu logaritma dari jumlah kata dalam laporan CSR. Menentukan *Residual Word* = regresi dari *Word* *Word* = α + β*SMOG + ε
Rasio Numerik	(Jumlah simbol numerik + jumlah kata kuantitatif) / jumlah kata dalam laporan CSR
Rasio Horison	(Jumlah tahun yang akan datang + jumlah kata-kata horison) / Jumlah kata dalam laporan CSR.

Teknik Analisis Data

Data akan dianalisis dengan statistik deskriptif yang meliputi variance statistic, mean, standar deviasi dan coefficient of variation dan menggunakan statistik inferensia yaitu uji korelasi Rank Spearman.

IV.HASIL PENELITIAN DAN PEMBAHASAN

Hasil Penelitian

Penentuan panjang kata (length word) sebagai ukuran panjangnya laporan CSR relatif terhadap kompleksitas laporan melalui dua tahap yaitu (1) menentukan jumlah kata (word) berdasarkan logaritma dari jumlah kata dalam laporan CSR dan (2) menentukan residual word = regresi dari word atau word = α+β*SMOG+ ε. Hasilnya tampak pada tabel 3 di bawah ini.

Tabel 2: Perhitungan Persamaan Regresi
Coefficients

Model		*Unstandardized Coefficients*		*Standardized Coefficients*	t	*Sig.*
		B	*Std. Error*	Beta		
1	(*Constant*)	3,302	0,957		3.451	0,002
	SMOG ATAU X	-0,003	0,069	-0,009	-0,044	0,965

a. *Dependent Variable*: WORD ATAU Y

Persamaan regresi yang diperoleh adalah red_word = 3,302 – 0,009 SMOG + ε. Selanjutnya red_word sebagai proksi dari length word diselesaikan dengan program SPSS versi 17.00 seperti ditunjukkan pada tabel 7 lampiran 1.

Semua data yang terkumpul dianalisis dengan statistik deskriptif yang hasilnya ditunjukkan pada tabel 3.

Tabel 3: Hasil Analisis Deskriptif
Descriptive Statistics

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*	*Variance*
SMOG atau X	29	11,00	18,20	13,8345	1,65363	2,734
Rasio Optimisme	29	0,00467	0,10086	0,0432444	0,02419550	0,001
Rasio Pesimisme	29	0,00058	0,06053	0,0156340	0,01134032	0,000
Rasio Numerik	29	0,00331	0,12828	0,0482478	0,02685182	0,001
Rasio Horison	29	0,00058	0,01070	0,0036284	0,00272934	0,000
*RES*_1	29	-0,92075	10,09703	0,0000000	0,59030895	0,348
Total Kata (*Word*)	29	222	22982	3966,66	5000,393	2,500E7
Valid N (*listwise*)	29					

Tingkat homogenitas ditentukan berdasarkan *coefficient of variance* berikut ini.

Tabel 4: *Coefficient of Variance*

Variabel	Deviasi Standar (A)	*Mean* (B)	*Coefficient of Variance* (A/B) x 100%)
SMOG atau X	1,65363	13,8345	11,95294
Rasio Optimisme	0,02419550	0.0432444	55,9506
Rasio Pesimisme	0,01134032	0,0156340	72,53627
Rasio Numerik	0,02685182	0,0482478	55,65398
Rasio Horison	0,00272934	0,0036284	75,22159

Nilai *mean* rasio-rasio laporan CSR mulai dari yang tertinggi hingga yang terendah (lihat tabel 4) adalah rasio numerik, rasio optimisme, rasio pesimisme dan rasio horizon. Nilai mean variabel readability (SMOG index) sebesar 13,83 menunjukkan rata-rata pembaca yang memahami laporan CSR adalah pada tingkat colledge atau perguruan tinggi, sedangkan nilai minimum sebesar 11,00 dan maksimum sebesar 18,20 menunjukkan bahwa pembaca yang dapat memahami laporan CSR terendah adalah pada kelas sebelas (elevent grade) dan maksimum adalah lulus sarjana strata 1 (graduade colledge). Berdasarkan nilai mean, laporan CSR bank-bank masuk dalam kategori sulit untuk dibaca (difficult to read) dan nilai coefficient of variation sebesar 11,95% (lebih besar dari 5%) dapat disimpulkan bahwa readability laporan CSR bersifat tidak homogen (beragam).

Variabel rasio optimisme, rasio pesimisme, rasio numerik, dan rasio horison berdasarkan nilai mean (lihat tabel 4) termasuk dalam kategori sangat rendah artinya laporan CSR masih sedikit mengandung kata-kata yang bermakna positif, negatif, berorientasi ke masa depan, dan juga menyajikan sedikit informasi berupa angka-angka. Selain itu nilai berdasarkan nilai deviasi standar dan nilai variance dengan cut off untuk corfficient variation adalah 5% (lihat tabel 4) menunjukkan variasi rasio optimisme, rasio pesimisme, rasio numerik, dan rasio horizon menunjukkan hasil yang tidak homogen.

Berdasarkan nilai mean, rentang nilai minimum dan maksimum, dan diperkuat dengan nilai standar deviasi (tabel 4) menunjukkan variasi kompleksitas laporan CSR masing-masing bank sangat beragam, yaitu ada yang menyajikan sangat sederhana (ditunjukkan hanya menyatakan dalam satu lembar) dan ada yang menyajikan sangat lengkap (dalam satu buku laporan).

Hasil analisis korelasi enam (6) variabel pengukuran yaitu rasio optimisme, rasio pesimisme, rasio numerik, rasio horison, dan tingkat kompleksitas (residual word) ditunjukkan pada tabel 6.

Pembahasan

Hasil pengukuran kualitas narasi laporan CSR dalam penelitian ini menggunakan lima variabel yaitu menyampaikan kata-kata yang bersifat optimis (financial positive words), pesimis (financial negative words), readability, numerical content, length, dan horizon content. Secara deskriptif, laporan CSR di laporan tahunan bank-bank yang terdaftar di BEI paling banyak mengandung informasi bersifat numerik, selanjutnya diikuti kata-kata yang bernada optimis, kata-kata yang bernada pesimis, dan yang paling sedikit adalah kata-kata yang berorientasi pada masa depan. Hasil temuan ini menunjukkan bahwa informasi CSR masih didominasi oleh informasi yang bersifat kuantitatif.

Kata-kata dalam laporan CSR yang bersifat positif lebih banyak dari kata-kata yang bernada negatif menunjukkan bahwa bank-bank ingin menunjukkan reputasi dan *image* yang baik kepada para *stakeholder*-nya (Hasseldine, Salama, dan Toms, 2005; Kuzey dan Uyar, 2017; Visser, Matten, Pohl, dan Tolhurst, 2007). Bank-bank yang memiliki kesempatan bertumbuh yang cepat secara signifikan memiliki skor *readability of* CSR *disclosure* lebih tinggi dibandingkan yang memiliki kesempatan bertumbuh rendah. Temuan ini

menunjukkan bahwa perusahaan yang memiliki kinerja lebih baik, lebih peduli pada aktivitas CSR, selain itu karena mereka ingin menjaga image, reputasi, dan kredibitas sebagai konsekuensi memenuhi keinginan stakeholders yang selaras dengan peran CSR (Bakar dan Ameer, 2010). CSR memiliki efek positif pada kepuasan pelanggan, reputasi perusahaan, dan ekuitas perusahan Hsu (2012).

Berdasarkan tingkat readability menunjukkan bahwa isi laporan CSR bank-bank dapat dipahami oleh pengguna pada jenjang perguruan tinggi (colledge) atau dengan kata lain tidak semua stakehorder perbankan dapat memahami pesan yang disampaikan, karena masuk dalam kriteria sulit untuk dibaca (difficult to read) atau informasi bersifat kompleks. Courtis (1995) menemukan hasil yang sama, yaitu sedikitnya populasi orang dewasa di Hongkong yang memahami annual report, sehingga dapat membatasi efektifitas komunikasi sebagai sarana untuk memfasilitasi pengambilan keputusan sumber daya secara rasional.

Mutlu et al. (2013) menyatakan bahwa laporan CSR dinilai berkualitas bila mengadung sedikit kata kunci optimistik (fewer optimistic keywords), lebih banyak kata kunci pesimis (more pessimistic keywords), tingkat keterbacaan yang tinggi (higher readability), laporan yang panjang (more length), berisi informasi numerik yang banyak (more numerical content), dan banyak mengandung kata-kata yang berorientasi ke masa depan (more horizon content). Temuan penelitian menunjukkan rasio optimisme, rasio pesimisme, rasio numerik, rasio horison tergolong sangat rendah, kompleksitas tinggi, serta readability index yang masuk dalam kategori sulit dibaca. Hasil ini menunjukkan bahwa kualitas laporan CSR masih rendah dan perlu diperbaiki agar lebih mudah dipahami; meskipun ada beberapa bank yang telah menyajikan laporan CSR dengan kualitas yang tinggi.

Pembahasan utama tentang korelasi antar aspek pengukuran kualitas naratif. Bozanic et al., (2014) mengingatkan bahwa para akademisi harus berhati-hati dalam menggunakan intuisi pada saat menentukan kualitas disclosure dengan berbagai atribut. Hal ini disebabkan masih sedikit bukti bahwa readability berkorelasi dengan pengungkapan yang bersifat informatif. Temuan analisis korelasi dalam penelitian ini menunjukkan bahwa tidak ada korelasi yang antara tingkat readability dengan rasio optimisme, rasio pesimisme, rasio numerik, rasio horison, maupun komplesitas laporan. Rasio optimisme tidak berkorelasi dengan rasio pesimisme dan rasio numerik. Rasio pesimisme tidak berkorelasi dengan rasio horison dan kompleksitas laporan. Rasio numerik tidak berkorelasi dengan rasio harison dan kompleksitas laporan. Rasio horison juga tidak berkorelasi dengan komplesitas laporan. Temuan yang menunjukkan tidak adanya korelasi dimungkinkan oleh beberapa hal yaitu sample size perusahaan yang sangat sedikit, periode penelitian hanya selama satu tahu yaitu tahun 2015, dan tidak ada pengklasifikasian berdasarkan ukuran perusahaan. Sebaliknya, fakta menunjukkan bahwa besar kecilnya ukuran perusahaan menentukan kompleksitas aktivitas CSR yang diikuti oleh jumlah pembiayaan yang besar dan selanjutnya berdampak pada pelaporan CSR.

Empat (4) dari lima belas (15) korelasi ditemukan dalam penelitian ini. Korelasi positif antara rasio optimisme dan rasio horison menunjukkan bahwa semakin banyak kata-kata positif di dalam laporan CSR, maka semakin banyak penyajian kata-kata yang berorientasi ke masa depan, begitu sebaliknya. Artinya semakin banyak aktivitas positif terkait CSR akan semakin banyak pula kata-kata optimis/positif yang bisa disampaikan, sehingga bank-bank memiliki keyakinan terhadap keberlangsungan usaha karena dapat hidup berdampingan dengan steakholder-nya. Temuan ini sejalan dengan temuan penelitian Mutlu et al., (2013) bahwa pesimistic (optimistic) tone yang menunjukkan concern (strengths) berasosiasi dengan aktivitas CSR.

Korelasi negatif antara rasio optimisme dan tingkat kompleksitas menunjukkan bahwa semakin banyak kata-kata positif atau bernada optimis menurunkan tingkat kompleksitas. Kata-kata positif yang disajikan oleh ban-bank dalam laporan CSR-nya, semakin memperjelas pembacanya. Temuan ini sejalan dengan Mutlu et al., (2010) dan dijelaskan dengan hasil temuan Bakar dan Ameer (2010) bahwa tingkat profitabilitas dan kesempatan bertumbuh yang tinggi, yang dalam hal ini masuk dalam kategori kata-kata finansial positif, memudahkan audience membaca pesan yang disampaikan , karena laporan mudah dibaca.

Korelasi positif pesimisme dan rasio numerik menunjukkan bahwa semakin banyak kata-kata negatif (pesimis) maka semakin mendorong tingginya penyajian informasi yang bersifat numerik, begitu sebaliknya. Penyajian informasi yang bersifat negatif dapat memberi pesan bahwa aktivitas CSR perusahaan kurang sesuai dengan harapan steakholder atau gagal. Untuk tetap menjaga reputasi bank, maka informasi yang ditonjolkan adalah informasi yang bersifat kuantitatif. Temuan sejalan dengan Bozanic et al., (2014) menyatakan bahwa intensitas numerik dapat menjadi atribut untuk informasi yang konkrit.

Rasio horison berkorelasi positif dengan kompleksitas laporan CSR menunjukkan bahwa bank-bank yang menyajikan kata-kata finansial yang berorientasi positif, semakin tinggi komplesitas laporan, begitu sebaliknya. Penyusunan laporan CSR yang dapat memberikan pemahaman tentang masa depan bank menjadi kompleks dan tidak mudah dipahami oleh steakholder-nya. Berorientasi ke depan berarti mengandung unsur strategi. Menurut Laidroo dan Oobik (2013), bank yang memilih strategi pasif dan menengah cenderung pasif lebih memilih CSR

disclosure yang stabil, baik dalam kuantitas dan readability, sedangkan bank yang memiliki strategi aktif lebih memilih meningkatkan kuantitas sehingga mengurangi readability CSR disclosure.

Tabel 6: Korelasi Antar Variabel

			SMOG atau X	Rasio Optimisme	Rasio Pesimisme	Rasio Numerik	Rasio Horison	*Unstandardized Residual*
Spearman's rho	SMOG	*Correlation Coefficient*	1.000	-.057	-.117	-.048	.029	-.092
		Sig. (2-tailed)	.	.769	.545	.806	.881	.635
		N	29	29	29	29	29	29
	Rasio Optimisme	*Correlation Coefficient*	-.057	1.000	.142	-.118	.667**	-.554**
		Sig. (2-tailed)	.769	.	.463	.543	.000	.002
		N	29	29	29	29	29	29
	Rasio Pesimisme	*Correlation Coefficient*	-.117	.142	1.000	.452*	.002	.117
		Sig. (2-tailed)	.545	.463	.	.014	.992	.546
		N	29	29	29	29	29	29
	Rasio Numerik	*Correlation Coefficient*	-.048	-.118	.452*	1.000	-.078	.087
		Sig. (2-tailed)	.806	.543	.014	.	.688	.653
		N	29	29	29	29	29	29
	Rasio Horison	*Correlation Coefficient*	.029	.667**	.002	-.078	1.000	-.556**
		Sig. (2-tailed)	.881	.000	.992	.688	.	.002
		N	29	29	29	29	29	29
	Unstandardized Residual	*Correlation Coefficient*	-.092	-.554**	.117	.087	-.556**	1.000
		Sig. (2-tailed)	.635	.002	.546	.653	.002	.
		N	29	29	29	29	29	29

Interpretasi hasil uji korelasi terdapat pada tabel 6 di bawah ini.

Tabel 7: Ringkasan Interpretasi Korelasi Antar Variabel

Korelasi antar Variabel	Koefisien Korelasi	Interpretasi
SMOG *index* (*readability*)dan rasio optimisme	0,057	negatif dan sangat lemah
SMOG *index* (*readability*)dan rasio pesimisme	0,117	negatif dan sangat lemah
SMOG *index* (*readability*)dan rasio numerik	0,048	negatif dan sangat lemah
SMOG *index* (*readability*)dan rasio horizon	0,029	positif dan lemah
SMOG *index* (*readability*)dan *residual word* (kompleksitas laporan)	0,092	negatif dan sangat lemah
Rasio optimisme dan rasio pesimisme	0,142	positif dan sangat lemah
Rasio optimisme dan rasio numeric	0,118	negatif dan sangat lemah
Rasio optimisme dan rasio horizon	0,667	positif dan kuat
Rasio optimisme dan *residual word* (kompleksitas laporan)	0,554	negatif dan cukup kuat
Rasio pesimisme dan rasio numeric	0,452	positif dan cukup kuat
Rasio pesimisme dan rasio horizon	0,002	positif dan sangat lemah
Rasio pesimisme dan *residual word* (kompleksitas laporan)	0,117	positif dan sangat lemah
Rasio numerik dan rasio horizon	0,078	negatif dan sangat lemah
Rasio numerik dan *residual word* (kompleksitas laporan)	0,087	positif dan sangat lemah
Rasio horison dan *residual word* (kompleksitas laporan)	0,556	negatif dan cukup kuat

V. SIMPULAN DAN SARAN

Kesimpulan

Penelitian ini menganalisis tingkat kualitas laporan CSR bank-bank di Indonesia yang terdaftar di BEI pada periode tahun 2015. Berdasarkan nilai mean rasio optimisme, rasio pesimisme, rasio numerik, rasio horizon, hasil penelitian ini menemukan bahwa kualitas laporan CSR masih rendah, meskipun beberapa bank telah menyajikan laporan yang berkulitas tinggi. Readability index menunjukkan kategori sulit dibaca atau hanya dapat dibaca minimal oleh mereka yang ada di perguruan tinggi.

Tingkat readability tidak berkorelasi dengan rasio optimisme, rasio pesimisme, rasio numerik, rasio horison, maupun komplesitas laporan. Korelasi positif dan cukup kuat ditemukan pada hubungan rasio optimisme dan rasio horizon, rasio pesimisme dengan rasio numerik, sedangkan korelasi negatif ditemukan antara ratio pesimisme dengan tingkat kompleksitas laporan CSR..

Keterbatasan

Beberapa saran untuk penelitian selanjutnya, seperti: (1) untuk kepentingan generalisasi maka jumlah populasi atau sample size diperbanyak dan periode waktu diperpanjang, (2) memperhatikan kata-kata negatif yang dinegasikan sehingga bermakna positif, (3), melakukan pengklasifikasian kualitas laporan CSR sehingga bermanfaat sebagai masukan bagi perusahaan, (4) untuk menjada reliabilitas perlu melibatkan pihak lain yang kompeten, dan (5) menguji korelasi berbagai aspek kualitas narasi laporan dengan kinerja, reputasi, dan nilai perusahaan.

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Lampiran 1

Tabel 7 Hasil Identifikasi, Pengkodean dan Tabulasi Data

NO	KODE	NAMA BANK	JUMLAH KATA DALAM CSR	OPTIMISME		PESIMISME		READABILITY			*LENGTH*		*NUMERICAL*		*HORIZON*	
			DALAM BAHASA INGGRIS	KATA-KATA POSITIF	RATIO_ OPTIMIS	KATA-KATA NEGATIF	RATIO_ PESS	SMOG *INDEX*	KETERANGAN	TINGKATAN *READABILITY*	*WORDS*	PROKSI *LENGTH: RESIDUAL WORD* ATAU *RED_WORD*	JUMLAH NUMERIK	RASIO_*NUMERICAL*	*NUMBER OF FUTURRE YEAR DAN HORIZON WORD*	*RATIO_ HORIZON*
1	AGRS	PT BANK AGRIS TBK	506	15	0.029644	7	0.01383	12.7	*very dificu+L5:M5*	*colledge*	2.70415	-0.55959	12	0.0237154	1	0.0019763
2	BABP	PT BANK MNC INTERNATIONAL TBK	3170	123	0.038801	55	0.01735	14.4	*very dificult to rea*	*colledge*	3.50106	0.2425	197	0.0621451	3	0.0009464
3	BACA	PT BANK CAPITAL INDONESIA TBK	340	18	0.052941	2	0.00588	15	*very dificult to rea*	*colledge*	2.53148	-0.72525	4	0.0117647	3	0.0088235
4	BBCA	PT BANK CENTRAL ASIA TBK	9311	208	0.022339	105	0.01128	12.1	*difficult to read*	*twelfth Grade*	3.969	0.70342	323	0.0346902	19	0.0020406
5	BBKP	PT BANK BUKOPIN TBK	4461	261	0.058507	95	0.0213	14.6	*very dificult to rea*	*colledge*	3.64943	0.39148	167	0.0374356	16	0.0035866
6	BBNI	PT BANK NEGARA INDONESIA TBK	22982	317	0.013793	188	0.00818	12.5	*difficult to read*	*colledge*	4.36139	1.09703	1024	0.0445566	40	0.0017405
7	BBTN	PT BANK TABUNGAN NEGARA (PERSERO) TBK	8586	213	0.024808	146	0.017	13.9	*difficult to read*	*colledge*	3.93379	0.67371	703	0.0818775	14	0.0016306
8	BBYB	PT BANK YUDHA BHAKTI TBK	404	32	0.079208	2	0.00495	12.2	*difficult to read*	*twelfth Grade*	2.60638	-0.65889	16	0.039604	2	0.0049505
9	BCIC	PT BANK JTRUST INDONESIA	1043	38	0.036433	12	0.01151	14.6	*very dificult to rea*	*colledge*	3.01828	-0.23967	32	0.0306807	1	0.0009588
10	BDMN	PT BANK DANAMON INDONESIA TBK	7754	67	0.008641	86	0.01109	12.7	*difficult to read*	*colledge*	3.88953	0.62578	198	0.0255352	13	0.0016766
11	BINA	PT BANK INA PERDANA TBK	731	43	0.058824	17	0.02326	14.7	*very dificult to rea*	*colledge*	2.86392	-0.39373	20	0.0273598	3	0.004104
12	BJBR	PT BANK PEMBANGUNAN DAERAH JAWA BARAT &	2497	119	0.047657	36	0.01442	14.1	*very dificult to rea*	*colledge*	3.39742	0.13794	148	0.0592711	12	0.0048058
13	BJTM	PT BANK PEMBANGUNAN DAERAH JAWA TIMUR TBK	3958	163	0.041182	96	0.02425	13.5	*difficult to read*	*colledge*	3.59748	0.33617	308	0.0778171	22	0.0055584
14	BKSW	PT BANK QNB INDONESIA TBK	3325	135	0.040602	38	0.01143	15	*very dificult to rea*	*colledge*	3.52179	0.26506	150	0.0451128	7	0.0021053
15	BMAS	PT BANK MASPION INDONESIA TBK	380	21	0.055263	23	0.06053	16.3	*very dificult to rea*	*graduate college*	2.57978	-0.67298	23	0.0605263	1	0.0026316
16	BMRI	PT BANK MANDIRI TBK	11981	369	0.030799	185	0.01544	18.2	*very dificult to rea*	*graduate college*	4.07849	0.83152	570	0.0475753	25	0.0020866
17	BNBA	PT BANK BUMI ARTA TBK	222	16	0.072072	3	0.01351	11.6	*difficult to read*	*twelfth Grade*	2.34635	-0.92075	5	0.0225225	1	0.0045045
18	BNLI	BANK PERMATA TBK	5385	173	0.032126	63	0.0117	13.6	*difficult to read*	*colledge*	3.73119	0.47019	229	0.0425255		
19	BSIM	BANK SINARMAS TBK	2083	164	0.078733	18	0.00864	12.9	*difficult to read*	*colledge*	3.31869	0.05555	62	0.0297648		
20	BSWD	PT BANK OF INDIA INDONESIA	255	11	0.043137	2	0.00784	14.7	*very dificult to rea*	*colledge*	2.40654	-0.85111	12	0.0470588		
21	BTPN	BANK TABUNGAN PENSIUNAN INDONESIA TBK	990	12	0.012121	29	0.02929	11.9	*difficult to read*	*twelfth Grade*	2.99564	-0.27055	127	0.1282828		
22	BVIC	BANK VICTORIA INTERNATIONAL TBK	5185	159	0.030665	75	0.01446	13.3	*difficult to read*	*colledge*	3.71475	0.45283	376	0.0725169		
23	DNAR	BANK DINAR INDONESIA TBK	378	30	0.079365	2	0.00529	14	*very dificult to rea*	*colledge*	2.57749	-0.68229	15	0.0396825		
24	INPC	PT BANK ARTHA GRAHA INTERNASIONAL TBK	5138	24	0.004671	3	0.00058	16.2	*very dificult to rea*	*graduate colledg*	3.71079	0.45772	17	0.0033087		
25	MAYA	PT BANK MAYAPADA INTERNATIONAL TBK	1634	79	0.048348	32	0.01958	11	*difficult to read*	*elevenht grade*	3.21325	-0.05568	130	0.0795594		
26	NISP	BANK OCBC NISP TBK	10335	282	0.027286	158	0.01529	13.1	*difficult to read*	*colledge*	4.01431	0.75179	357	0.0345428		
27	PNBN	PT BANK PANIN INDONESIA TBK	654	45	0.068807	10	0.01529	14.3	*very dificult to rea*	*colledge*	2.81558	-0.44329	18	0.0275229		
28	PNBS	PT BANK PANIN SYARIAH TBK	304	5	0.016447	2	0.00658	16.4	*very dificult to rea*	*graduate college*	2.48287	-0.76959	28	0.0921053		
29	AR BAW	PT BANK WOORI SAUDARA INDONESIA 1906 TK	1041	105	0.100865	35	0.03362	11.7	*difficult to read*	*twelfth Grade*	3.01745	-0.24934	73	0.0701249		

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THE RELATIONSHIP BETWEEN ENVIRONMENTAL PERFORMANCE AND THE EXTENT OF ENVIRONMENTAL DISCLOSURE

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ABSTRACT

The purpose of this study: This study examines the relationship between environmental performance and the extent of environmental disclosure.

Methodology: Sample of this study consists of thirty-five high profile companies. The environmental performance is measured based on the results of the PROPER assessment and the extent of environmental disclosure index by using GRI checklist items. This research applies content analysis, descriptive and inferential statistical analysis.

Main Findings: The result shows that on average, the extent of environmental disclosure is low (22.5%). Mining companies provide highest environmental disclosure (58.2%) followed by chemicals (21.4%), utilities (19.0%), pulp and papers (16.5%), industrial (11.0%), and oil and gas (4.2%). The analysis also presents that environmental performance doesn't have effect on level of environmental disclosure.

Implications: This result suggests that high environmental performance may not encourage companies to communicate more environmental issues. This finding indicates that motivation for a company to disclose environmental information is not always based on the legitimacy perspectives but might be ~~a~~s accountability form.

Keywords: *environmental performance, environmental disclosure, legitimacy, high profile industry, PROPER*

1. INTRODUCTION

Currently, issues on environmental disclosure and environmental performance have still attracted the attention of academics. This is because the findings of the prior studies are still varied (Campopiano and Massis (2015); Patten, 2005; Plumlee, Brown, Hayes, and Marshall, 2015). Knowing to what extent environmental disclosure and environmental performance ~~is~~ are important, as it can provide additional information to assess corporate performance (Clarkson, Fang, Li, and Richardson, 2013). Corporate environmental performance provides useful information to stakeholders (K.E. Hughes, 2000). Previous studies suggested that corporate environmental performance as a form of ethical actions of corporate (Cormier, Magnan, and Morard, 1993), moral responsibility (Woodward, Edwards, and Birkin, 1996), compliance with regulations, corporate longterms performance indicator

(Clarkson *et al.*, 2013). One of the corporate performance indicators is financial benefits. For example, PT. Bukit Asam Tbk has financial benefits such as increased in profit, community empowerment and competitiveness after transformed from coal mining company into a provider of environmentally renewable energy (PROPER[1],2015).

The report released Program Pemeringkatan Kinerja Perusahaan (PROPER) in 2016 suggested that the environmental performance of Indonesian companies is still low. In addition, from 1930 companies, the majority of companies (73.68%) recently categorized as blue (fairly well). It is shown by the low level of utilization of hazardous materials and toxic waste (reduce, recycle, refuse/3R) in industry sectors. For example, in 2016, the utilization of B3 in mining, oil and gas industries is only 18.16% and manufacturing is13.46%. Based on the findings of the report, it showed that the environmental performance of Indonesian companies has not been satisfactory. The low of the performance may be caused by low ~~of~~awareness and adherence to the regulations.

In terms of studies on the relationship between environmental performance and environmental disclosure, the findings of previous studies are varied. Some studies suggested that company that has a good environmental performance tend to disclose more information (Clarkson, Li, Richardson, and Vasvari, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007). In contrast, Patten (2002) found a negative correlation between environmental performance and the extent of environmental disclosure, while Ingram and Frazier (1980) and Patten (2005) concludes there is no correlation. Due to the inconsistency of these findings, this study is aimed to investigate the relationship between environmental performance and environmental disclosure. Heirs, et al. (2017) and (Waris *et al.*, 2017) argued that the existence of a ~~difference~~ different public pressure in environmental responsibility between developing countries (such as Indonesia) and developed countries. This study focused on high profiles companies listed companies on Indonesia Stock Exchange (IDX) in 2016. The high profiles companies such as mining, pulp and paper, oil and gas, chemicals, utilities, were chosen as their operations have a significant impact on environment conditions (Clarkson *et al.*, 2008, 2011; Faisal and Achmad, 2014) (Hasseldine, Salama, and Toms, 2005; Patten, 2005).

2. LITERATURE REVIEW –

Deegan (2007) and Hasseldine *et al.* (2005) argued that company with bad reputation will left behind by the market. Furthermore, they explain that company that is not operating in harmony with the environment and society can lead to high costs until absence of approval

from community. Corporate environmental disclosure is one of media communications to stakeholders in oreder to legitimize corporate's operations (Cho and Patten, 2007; Neu, Warsame, and Pedwell, 1998; Patten, 2005) and fulfilling social contract by complying with regulations in order to achieve corporate accountability (Tilt, 1994; Woodward *et al.*, 1996). Environmental disclosure can also improve the perception of stakeholders about corporate environmental management (Cho and Patten, 2007). Level of sensitivity to impact of company operation on environmental may affect extent of environmental disclosure (Cowen, Ferreri, and D.Parker, 1987; Hackston and Markus J. Milne, 1996; Patten, 1991, 1992; Plumlee *et al.*, 2015). Past studies showed that company that potentially cause damage to environment such as high profile companies disclosed more information than low profile companies (Clarkson *et al.*, 2011; Clarkson *et al.*, 2013; Hasseldine *et al.*, 2005).

Environmental performance can also drive the extent of environmental disclosure. The impact of environmental performance disclosure, whether it brings favorable, neutral, or unfavorable to company performance will become company's risks (Cormier and Magnan, 1999). Environmental disclosure can be used as a means of legitimizing the company (Cho and Patten, 2007). In addition through the disclosure of the environment, the company's attempt to gain legitimacy is by participating in environmental performance assessments conducted by external parties. A good environmental performance is ideally followed by extensive disclosure. Positive correlations were found between the ratings conducted by external and independent party regarding the company's environmental responsibilities and the disclosure levels of CSR (Clarkson *et al.*, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007).

The disclosure of actual performance on pollution emissions, conservation and recycling efforts provides critical information for stakeholders to assess environmental performance, assess long-term company commitment, and for investors can also be used to assess the impact of environmental compliance related to future operations and financial performance (Clarkson *et al.*, 2013). Environmental performance based on toxic emissions can be used by external management and stakeholders to examine the relationship of future environmental liability disclosure and the market value of the company's equity (K.E. Hughes, 2000). The risks caused by company's operation related with the level of environmental disclosure. Based on the information content revealed, (Cormier and Magnan, 1999) found companies producing high levels of pollution such as pulp and paper revealed more environmental information than oil, chemical and steel, metals and mining companies. Pulp

and paper mills become the target of pollution-consuming stakeholders, because they consume large amounts of water and are usually located near rivers that are often located near population centers. Plumlee *et al.* (2015) also shows that industries with a large impact on the environment have higher disclosure values and firms more often disclose positive environmental information than neutral and negative ones. Cho and Patten (2007) show different findings. Environmental-sensitive companies often disclose negative information rather than neutral disclosure, but vice versa for companies in insensitive industries, in order to improve stakeholders' perceptions of environmental management.

The former researches showed that the increasing of environmental performance disclosure correlate with the extent of environmental disclosure. A positive correlation between an external rating based on the UK Index Environmental Engagement and the extent of disclosure was found (Staden and Hooks, 2007). These findings suggest that environmental disclosure reflects company responsibility to the environment and is a form of support for the development of legitimacy theories.Result findings of (Clarkson *et al.*, 2008) and (Clarkson *et al.*, 2011) are consistent, i.e. there is a positive relationship between environmental performance and the level of discretionary environmental disclosure for the five companies classified as the most polluting industry in the United States. High pollution-generating industries, based on Toxics Release Inventory (TRI) measurements, provide a wider discretionary environment disclosure, and vice versa. Variations in disclosure levels among the five types of industries (i.e. pulp and paper, oil refineries, chemical and steel, metals, and mining) aligned also with findings (Plumlee *et al.*, 2015). These results show that the company seeks to legitimize, if its activities threaten the environment (Clarkson *et al.*, 2011).

Plumlee *et al.* (2015) also found a positive correlation between environmental performance and environmental disclosure. In his research, companies with good environmental performance have good environmental disclosure, whereas companies with poor environmental performance have poor environmental disclosures as well. Good environmental performance is measured by the sum of environmental performance strengths, while poor environmental performance is measured by the number of concerns of the company's environmental performance (the sum of environmental performance concerns). Environmental performance instruments refer to Kinder, Lydenberg, and Domini's (KLD's) Socrates database.

Hypothesis should be written. How can a research be done without hypothesis ?

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3. METHODOLOGY - In Methodology (500 to 1000 words), description of the procedure should be written in a logical order under certain title (Variables,Sampling, measurement, data, method used in the analysis) with sufficient detail .

This research is characterized as descriptive and exploratory, as seek to identify the application of content analysis, descriptive statistics and correlation analysis. This research takes a quantitative approach to examine the relationship between Environmental Disclosure Index (ENVID) and Environmental Performance . Such an approach is used because it is focused on explaining associations between the two variables and addressing specific questions about a clearly defined topic. By using a quantitative approach in such a disclosure study, the findings may be more objective and informative for stakeholders and other parties. The stated purpose of this research is to describe the environmental performance, the extent of environmental disclosure and analyze the relationship between environmental performance and the extent of environmental disclosure of companies. Legitimacy theory is the theoretical framework within which these purposes will be pursued. The research approach adopted to achieve these purposes encompasses population of the study, data collection, measurement variables, and statistical analysis.

This study is a population study. It means that all members of the population are observed in accordance with the research variables. Thus there is no sampling, and therefore the results of the analysis are the conclusions for the population. The population of this study is public companies in Indonesia that cause high pollution for the environment, namely companies engaged in the field of pulp and paper, chemicals, oil and gass, metals and minning, and utilities as investigated by (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013). The companies were also classified based on PROPER criteria and Bloomberg database. The PROPER classification include the following type of companies, that are, chemicals, pulp and paper, industrial metal and mining, mining, oil and gas, and utilities (PROPER, 2016), while classification according to Bloomberg database include basic industry and chemicals (animal feed; cement, ceramics, and glass porcelain; chemicals; pulps and paper; metal and allied products); mining (crude petroleum and natural gas production, cool mining, and metal and mineral mining) and infrastructure utility & Transportation (Bloomberg, 2018). Another criterion for members of the population is companies listed in the 2016 PROPER attendance list which are also listed in Indonesia Stock Exchange (BEI) for the period of 2016 and publish their annual report 2016 through www.idx.co.id.

There are three steps in determine the member of the target population. First, identify the membership criteria based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) and also PROPER (2016). In this step, among 1930 companies listed in PROPER 2016, there are 578 companies include 52 chemical companies, 31 pulp and paper companies, 63 industrial metal dan mining companies, 88 mining companies, 216 oil and gas companies, and 128 utilities companies. The Second step, we identify companies that follow PROPER 2016 and at the sametimes are also listed in BEI 2016. This second step result 22 companies. Finally, in the third step we identify companies based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) Clarkson et al ., 2008) criteria adjusted by Bloomberg (2018) classification which result 35 companies. The list of companies that are member of the population is in Appendix 1. The use of 2016 data is due to the importance of a one-year delay to observe company responses to GRI statements (2015) that reports published after 31 December 2015 should be prepared in accordance with G4 guidelines.

After selecting the companies and in order to operationalize this study, the data were collected. 35 annual report from 35 companies were read and content analysis was applied to identify the required data. It should be noted that not all of the 578 high risk companies listed in PROPER were included in the target population. It is because the PROPER assesment can be followed by subsidiary companies or company branches at a specific area, but the company annual reporting listed in BEI is done by the parent company. It is why 578 companies reduced to 35 companies as the member of the target population. This research was done by assumption that if one parent company has PROPER rank from more than one subsidiary company in 2016 than we choose the highest rank as the data.

In order to analize the data, we have used the content analysis technique which seeks to reveal the description of masseges contents based on systematic and objectives procedure (Bardin, 2004 as cited in Altoe, Panhoca, and Espejo (2017)). The information content in the massages was recorded (measured). The recording is the specific segment of content that characterized by placing it in a given category.

This research focusing on two main variables, that are, environmental performance and and the extent of environmental disclosure. The measurement of environmental performance research variables is taken from the PROPER 2016 assessment data under the control of the Ministry of Environment and Forestry of the Republic of Indonesia. Environmental performance is measured by the following rankings: score of five (gold predicate / excellent),

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score of four (green predicate / good), score of three (blue predicate / enough), score 2 (red predicate / bad), and score 1 (black predicate / very bad).

Measurement of the extent of environmental disclosure refers to the indicators according to GRI 2013 that are presented in detail in Appendix 2. The reasons for the use of GRI guidelines by 2013 because they meet global standard qualifications that are internationally accepted and universal (Laine, 2009). Schaltegger (1997) adds that internationally recognized ecological standards have the certainty and guarantee the minimum level of information quality. Thus, the measure indicator of the extension levels has met the validity test requirements. The results of the measurement of the extension levels are expressed in index numbers. Index provides a uniform system of input and coding and is essential for organizing data in each study for a computerized database (Clarkson, 1995). Furthermore, index was given generally to check for the presence or absence of specific items of information. The Environmental Disclosure Index for company j (ENVDj) is difined as follows:

$$ENVD_j = \frac{\sum_{i=1}^{n_j} x_{ij}}{n_j}, \quad x_{ij} = \begin{cases} 1 & \text{, if i th item is disclosed} \\ 0 & \text{, if i th item is not disclosed} \end{cases}$$

This research employ several statistical technique to pursue the objectives of the study. Descriptive statistics and cross classification technique will be used to elaborate the characteristic of the companies based on several aspect such as environmental risk categories that mostly disclosed by the companies. It can also be used to study the trend and indeph analysis concerning the consistency of environmental performance and the extent of environmental disclosure. Gamma coefficient is used as the main statistical techniques to explore wether there is ascociation between environmental performance and the extent of environmental disclosure or not. This nonparametric techniques proposed by Goodman and Kruskal (1979). is used because we consider variable that measured in ordinal scale i.e the environmental performance. To do so, the disclosure index measured in ratio scale has to be converted into ordinal scale by applying rank transformation so that the two variables both have the same scale of measurement.

4. RESULT AND DISCUSSION

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The aims of this study were to explore the level of environmental disclosure and the relationship between environmental performance and environmental disclosure in high risk population companies in Indonesia. This section provides an overview of the environmental disclosure and environmental performance of the 35 population companies that contains many types of company as shown in Figure 1. The type of companies is dominated by chemical and industrial metal and mining, followed by mining, pulp and paper utilities and finally oil and gas.

Figure 1. Number companies by type of industry

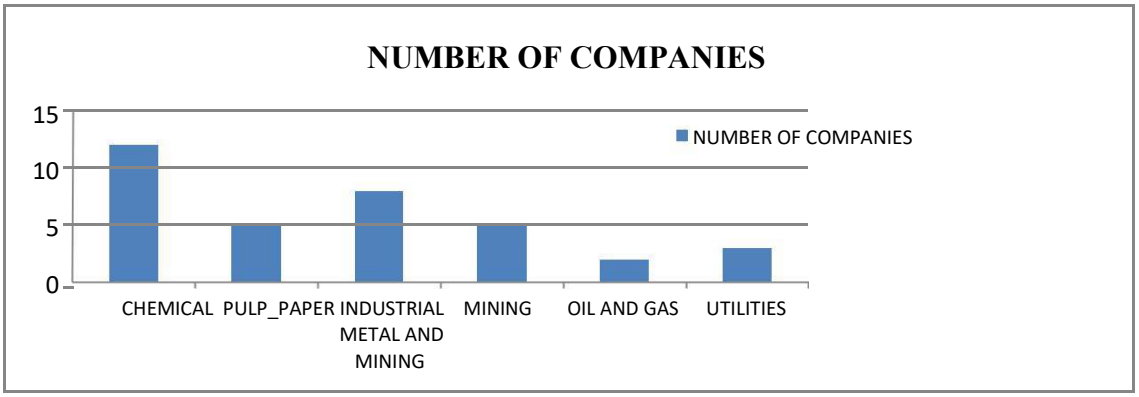

Table 1. PROPER rank by type of industry

	PROPER RANK				TOTAL
TYPE OF COMPANY	RED	BLUE	GREEN	GOLD	
CHEMICAL	0	9	3	0	12
PULP AND PAPER	0	5	0	0	5
INDUSTRIAL AND MINING	1	7	0	0	8
MINING	0	2	2	1	5
OIL AND GAS	0	1	0	1	2
UTILITIES	1	2	0	0	3
TOTAL	2	26	5	2	35
Percentage (%)	5.7	74.3	14.3	5.7	

Based on environmental performance represent by PROPER rank (Table 1), most companies achieve Blue (74.3%), followed by Green (14.3%), Red and Gold 5.7% each. It shows that most of the target population companies have already follow the regulation and a small number of companies (2 companies) has already exceed the regulation and having efficient resourches management and well implementation in social responsibility. The two companies that achieve gold rank show their excellency and consistency in environmental management, ethics, and social responsibility. This finding shows that Indonesia high risk companies have already

follow the Indonesia environmental management regulation (PROPER, 2016). This finding is also support the former result that regulation may improve the environmental performance (Ika *et al.*, 2017). The small numer of companies that achieve green and gold rank indicates that the implementation of social responsibility normatively is still challenging (Ketaren, 2014). Furthermore, programs that empowering the environmental awareness is needed (Waris *et al.*, 2017).

Table 3. Descriptive statistics by PROPER rank

PROPER rank	Mean of disclosure index	Standard deviation
RED	0.114	0.081
BLUE	0.186	0.171
GREEN	0.417	0.233
GOLD	0.357	0.384
TOTAL	0.225	

Table 3 shows the mean of disclosure index based on their proper rank. Generally, it indicates the low level of environmental disclosure (grand mean 0.2245). This fact support the former research result that were done in Indonesia (Mirfazli, 2008; Setiawan and Darmawan, 2011). The reasons of this condition can be describe as follows, 1) the implementation of environment disclosure in Indonesia is still voluntary and haven't yet regulate base on Finance Accounting Standard (*SAK*) (Fauzi, 2014). The consequence is that company report the disclosure content freely (Laan, 2009); 2) The Company has only few social activity (Mirfazli, 2008); 3) CSR's disclosure content in Indonesia provide only information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014; Sharma, 2013) and most of them have incomplete (quantitatively and qualitatively) information disclosure with respect to material, energy, water, biodiversity, emission, waste or garbage, product and services, compliance, pollution, expenditure and environmental investment, supplier assement environmental, and environmental complaint mechanism, as global requirement (GRI, 2015), and 4) environmental disclosure haven't yet treated as a measure of environmental performance like finance performance which happened in developed countries (Sharma, 2013). Furthermore, Waris *et al.* (2017) say that in developing country people give lower pressure to the company in term of environmental responsibility due to the lack of environmental awareness rather than in developed countries.

Table 4 shows the number and their percentage of companies that disclose any categories with respect to environmental issues. The table shows that waste and garbage is

disclosed by 68.6% companies. It means that waste and garbage is the most important category that prioritized by companies to be disclosed. Infact, there are four other categories that also have quite high priority (more than 50%), i.e emission, energy, expenditure and environmental investment. This findings indicate that companies have implement good environmental management system to improve the absolute efficiency of reducing waste (PROPER, 2015). Also, it support Clarkson *et al.* (2013) who stated that the performance indicator disclosure with respect to emission, actual pollution, conservation, and recycle activities give critical information to the stakeholders in evaluate the long term environmental performance and environmental compliance impact.

Table 4. Descriptive statistics by disclosure category

Category	Number of company	%	Category	Number of company	%	Category	Number of company	%
Material	6	17.1	emmision	22	62.9	transportation	5	14.3
Energy	22	62.9	effluents and waste	24	68.6	expenditure and environmental investment	19	54.3
Water	9	25.7	product and service	15	42.9	supplier	9	25.7
Biodiversity	20	57.1	compliance	13	37.1	complaint mechanism	9	25.7

Table 5 shows the cross classification between the type of company and the environmental disclosure represented by the category of the extent of disclosure. In the last column present the mean value of disclosure index. It shows that mining company is the most (58.29%) in disclosing environmental information followed by chemical (21.43%) and others with less than 20 percent on the average. Based on Table 5, there is a big discrepancy between type of company in disclose environmental information which is also consistent with Tan, Benni, and Liani (2016) and Trireksani and Djajadikerta (2016). Test of association between type of company and the category of the extent of disclosure using contingency coefficient (Table 6) shows the same conclusion (significant under α=0.05).

Table 5. A cross classification between type of company and environmental disclosure

	The category of the extent of		

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Type of Company	disclosure			Total number of company	Mean of disclosure index
	1	2	3		
CHEMICAL	9	3	0	12	0.2143
PULP AND PAPER	4	1	0	5	0.1657
INDUSTRIAL AND MINING	8	0	0	8	0.1107
MINING	0	1	4	5	0.5829
OIL AND GAS	2	0	0	2	0.0429
UTILITIES	2	1	0	3	0.1905
Total	25	6	4	35	

Table 6. The extent of disclosure using contingency coefficient

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.688	0.000

The mining company presented moderate level of disclosure information support is consistent with Trireksani and Djajadikerta (2016). The mining company disclose more than other type of company because they have greater operation area that may impact to the larger environment. This finding support the legitimacy theory that the greater the impact of company to the environment, the more widespread its environmental disclosure (Clarkson *et al.*, 2008).

Table 7. Extent of Disclosure by category

	The category of the extent of disclosure			
PROPER RANK	1	2	3	Total
RED	2	0	0	2
BLUE	20	5	1	26
GREEN	2	3	0	5
GOLD	1	0	1	2
Total	25	8	2	35

Table 7 shows cross classification between environmental performance which is represented by PROPER RANK and environmental disclosure which is represented by the category of the extent of disclosure. Numbers in the cells is the number of company satisfied the cross category. The extent of disclosure is categorized into three categories in term of the percentage of environmental indicator being disclosed, i.e 1= less than 30%, 2=disclose 30%-60%, and 3=disclose more then 60%. Generally, the table demonstrate the awareness of companies in disclosing environmental issues in their annual report. Most of the companies, which are 25 out of 35 (71.42%), disclose only less than 30% with respect to environmental issues including 20 companies having blue PROPER rank and, unfortunately, include one company with gold rank. On the otherhand, there is one company with gold rank disclose more than 60% as what

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we expected that PROPER rank should be consistent with the extent of disclosure. This finding shows that companies having good environmental performance (blue, green, and gold) are not otomatically have high percentage (more information) in disclosing the environmental issues (Waras, 2017). Most of the companies inform their environmental performance in the annual report but do not describe their environmental activities in detail.

The above description is also supported by the statistical test of association between environmental performance and environmental disclosure. The Gamma coefficient of association showed in table 4.7 is not significant under α=0.05.

Table 8. The Gamma Coefficient of Association

Gamma	Asymp. Std. Error	Approx. Tb	Approx. Sig.
0.642	0.215	1.847	0.065

Strictly speaking, environmental performance is not associated with environmental disclosure. This finding is the same as the conclusion resulted by Sutantoputra, Lindorff, and Johnson (2012) who say that there is no evidence that good performers disclose more as a way of promoting themselves and separating themselves from poor performance.

Sutantoputra *et al.* (2012) state that, in general (not specifically), disclosure is a company way of promoting environmental awareness to the society and there is an untested complex range of forces that imply non-significance relationship between environmental performance and environmental disclosure. The low extent of environmental disclosure is also show that most of the companies do not reference GRI
as a reporting standard. It means that most of company annual report haven't shown sustainability oriented yet. Some researches showed that social responsibility disclosure content in Indonesia is dominated by information about clarity activities, philantropy and social involvement (Fauzi, 2014;

Gunawan, 2007; Hermawan and Mulyawan, 2014) and that Indonesia companies haven't treat equivalently environmental performance, social performance, and finance performance like in developed countries (Sharma, 2013). The low level of environmental disclosure found in this research is also matching with the fact found by Waris *et al.* (2017) that community in developing countries have low awareness with respect to the importance of environmental disclosure.

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5. CONCLUSION **this part of the article needs to be rearranged e.g the underlined paragraph should be written just before implication under title Limitation of the study**

Based on PROPER ranking (PROPER, 2016), most companies have blue rank in environmental management (according to the law), the second largest is green (environmental management goes beyond regulation and efficient in utilizing resources and performs social responsibility well), and the smallest is gold rank (superior and consistent in environmental management and ethical and responsible to the community) and red (environmental management is not in accordance with legislation).

The extent of environmental disclosure referred to GRI (2013) is low. The extent of discloseure and the content varies over type of company. The low level of disclosure indicates that most companies have not follow the standard of sustainability reporting, since the disclosure is still voluntary. Based on disclosure index, the mining companies present the broadest disclosure rate followed by chemical companies, utilities companies, pulp and paper companies, industrial metal and mining companies, and oil and gas companies. Based on the category of environmental disclosure contents, most companies disclose about waste and garbage issues followed by emissions and energy, biodiversity, environmental expenditures and investments. The relatively few are products and services, suppliers, and complaints mechanism, while the least is about material and transportation.

This study found no correlation between environmental performance and the extent of environmental disclosure. That is, high company performance is not always followed by extensive disclosure, and vice versa. The fact that the company's environmental performance and the extent of environmental disclosure are uncorrelated, while enviromental performance is still predominantly blue and the environmental disclosure is low level may explain that the company's environmental activities are intended to enhance the company's reputation that ultimately achieves legitimacy.

The result of this study is limited on a small number of target population and focusing on the high risk company with respect to environment. In the next study need to increase the size of the population, the study period, and add the type of company that has a low risk. The environmental performance used in this study is based on the results of the environmental management performance assessment (PROPER) rating in 2016. In the next research can be developed by using other environmental performance measurements, such as CO_2 concentration and greenhouse gas emission rate.

This study show that one parent company can follow the rating program performance assessment of environmental management as much as subsidiary companies or the number of operating units. Therefore, the ranking of a company varies. This study assumes that the best ranking of environmental performance achieved is being used as the data analysis. Given the use of these assumptions, then in the next research we suggest to use rating assumption that better represents the condition of the company.

In this study, the measurement of the extent of environmental disclosure use the following rule, that is by giving a score of one when the annual report contain information and zero otherwise based on the sub categories of GRI. Considering the contents in each subcategory contains many elements, a score
of one will be given when there is at least one element disclose by the company. In subsequent research, scoring may use more gradations in the form of a more representative scale.

Awareness of environmental management by high risk companies with respect to the environment is increasing. The awareness is showed by the fact that most companies have achieved good enough ratings until very well. In contrast, the facts show that the extent of environmental disclosure is still low. One reason is that environmental disclosure for companies in Indonesia is still voluntary. Sutantoputra *et al.* (2012) also states that voluntary disclosure is not a reliable way of assessing company environmental behavior. For this reason, the government needs to introduce mandatory reporting that will produce publicly available information on the company's environmental performance with various indicators. The implication is to encourage mandatory disclosure of the environment, so that disclosure is not only broad but increasingly qualified.

Acknowledgment – Any financial or nonfinancial should be written here

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THE RELATIONSHIP BETWEEN ENVIRONMENTAL PERFORMANCE AND THE EXTENT OF ENVIRONMENTAL DISCLOSURE

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ABSTRACT

The purpose of this study: This study examines the relationship between environmental performance and the extent of environmental disclosure.

Methodology: Sample of this study consists of thirty-five high profile companies. The environmental performance is measured based on the results of the PROPER assessment and the extent of environmental disclosure index by using GRI checklist items. This research applies content analysis, descriptive and inferential statistical analysis.

Main Findings: The result shows that on average, the extent of environmental disclosure is low (22.5%). Mining companies provide highest environmental disclosure (58.2%) followed by chemicals (21.4%), utilities (19.0%), pulp and papers (16.5%), industrial (11.0%), and oil and gas (4.2%). The analysis also presents that environmental performance doesn't have effect on level of environmental disclosure.

Implications: This result suggests that high environmental performance may not encourage companies to communicate more environmental issues. This finding indicates that motivation for a company to disclose environmental information is not always based on the legitimacy perspectives but might be as accountability form.

Keywords: *environmental performance, environmental disclosure, legitimacy, high profile industry, PROPER*

1. INTRODUCTION

Currently, issues on environmental disclosure and environmental performance have still attracted the attention of academics. This is because the findings of the prior studies are still varied (Campopiano and Massis (2015); Patten, 2005; Plumlee, Brown, Hayes, and Marshall, 2015). Knowing to what extent environmental disclosure and environmental performance ~~is~~ are important, as it can provide additional information to assess corporate performance (Clarkson, Fang, Li, and Richardson, 2013). Corporate environmental performance provides useful information to stakeholders (K.E. Hughes, 2000). Previous studies suggested that corporate environmental performance as a form of ethical actions of corporate (Cormier, Magnan, and Morard, 1993), moral responsibility (Woodward, Edwards,

and Birkin, 1996), compliance with regulations, corporate longterms performance indicator (Clarkson *et al.*, 2013). One of the corporate performance indicators is financial benefits. For example, PT. Bukit Asam Tbk has financial benefits such as increased in profit, community empowerment and competitiveness after transformed from coal mining company into a provider of environmentally renewable energy (PROPER[1],2015).

The report released Program Pemeringkatan Kinerja Perusahaan (PROPER) in 2016 suggested that the environmental performance of Indonesian companies is still low. In addition, from 1930 companies, the majority of companies (73.68%) recently categorized as blue (fairly well). It is shown by the low level of utilization of hazardous materials and toxic waste (reduce, recycle, refuse/3R) in industry sectors. For example, in 2016, the utilization of B3 in mining, oil and gas industries is only 18.16% and manufacturing is13.46%. Based on the findings of the report, it showed that the environmental performance of Indonesian companies has not been satisfactory. The low of the performance may be caused by low ~~of~~awareness and adherence to the regulations.

In terms of studies on the relationship between environmental performance and environmental disclosure, the findings of previous studies are varied. Some studies suggested that company that has a good environmental performance tend to disclose more information (Clarkson, Li, Richardson, and Vasvari, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007). In contrast, Patten (2002) found a negative correlation between environmental performance and the extent of environmental disclosure, while Ingram and Frazier (1980) and Patten (2005) concludes there is no correlation. Due to the inconsistency of these findings, this study is aimed to investigate the relationship between environmental performance and environmental disclosure. Heirs, et al. (2017) and (Waris *et al.*, 2017) argued that the existence of a ~~difference~~ different public pressure in environmental responsibility between developing countries (such as Indonesia) and developed countries. This study focused on high profiles companies listed companies on Indonesia Stock Exchange (IDX) in 2016. The high profiles companies such as mining, pulp and paper, oil and gas, chemicals, utilities, were chosen as their operations have a significant impact on environment conditions (Clarkson *et al.*, 2008, 2011; Faisal and Achmad, 2014) (Hasseldine, Salama, and Toms, 2005; Patten, 2005).

2. LITERATURE REVIEW –

Deegan (2007) and Hasseldine *et al.* (2005) argued that company with bad reputation will left behind by the market. Furthermore, they explain that company that is not operating in

harmony with the environment and society can lead to high costs until absence of approval from community. Corporate environmental disclosure is one of media communications to stakeholders in oreder to legitimize corporate's operations (Cho and Patten, 2007; Neu, Warsame, and Pedwell, 1998; Patten, 2005) and fulfilling social contract by complying with regulations in order to achieve corporate accountability (Tilt, 1994; Woodward *et al.*, 1996). Environmental disclosure can also improve the perception of stakeholders about corporate environmental management (Cho and Patten, 2007). Level of sensitivity to impact of company operation on environmental may affect extent of environmental disclosure (Cowen, Ferreri, and D.Parker, 1987; Hackston and Markus J. Milne, 1996; Patten, 1991, 1992; Plumlee *et al.*, 2015). Past studies showed that company that potentially cause damage to environment such as high profile companies disclosed more information than low profile companies (Clarkson *et al.*, 2011; Clarkson *et al.*, 2013; Hasseldine *et al.*, 2005).

Environmental performance can also drive the extent of environmental disclosure. The impact of environmental performance disclosure, whether it brings favorable, neutral, or unfavorable to company performance will become company's risks (Cormier and Magnan, 1999). Environmental disclosure can be used as a means of legitimizing the company (Cho and Patten, 2007). In addition through the disclosure of the environment, the company's attempt to gain legitimacy is by participating in environmental performance assessments conducted by external parties. A good environmental performance is ideally followed by extensive disclosure. Positive correlations were found between the ratings conducted by external and independent party regarding the company's environmental responsibilities and the disclosure levels of CSR (Clarkson *et al.*, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007).

The disclosure of actual performance on pollution emissions, conservation and recycling efforts provides critical information for stakeholders to assess environmental performance, assess long-term company commitment, and for investors can also be used to assess the impact of environmental compliance related to future operations and financial performance (Clarkson *et al.*, 2013). Environmental performance based on toxic emissions can be used by external management and stakeholders to examine the relationship of future environmental liability disclosure and the market value of the company's equity (K.E. Hughes, 2000). The risks caused by company's operation related with the level of environmental disclosure. Based on the information content revealed, (Cormier and Magnan, 1999) found companies producing high levels of pollution such as pulp and paper revealed more

environmental information than oil, chemical and steel, metals and mining companies. Pulp and paper mills become the target of pollution-consuming stakeholders, because they consume large amounts of water and are usually located near rivers that are often located near population centers. Plumlee *et al.* (2015) also shows that industries with a large impact on the environment have higher disclosure values and firms more often disclose positive environmental information than neutral and negative ones. Cho and Patten (2007) show different findings. Environmental-sensitive companies often disclose negative information rather than neutral disclosure, but vice versa for companies in insensitive industries, in order to improve stakeholders' perceptions of environmental management.

The former researches showed that the increasing of environmental performance disclosure correlate with the extent of environmental disclosure. A positive correlation between an external rating based on the UK Index Environmental Engagement and the extent of disclosure was found (Staden and Hooks, 2007). These findings suggest that environmental disclosure reflects company responsibility to the environment and is a form of support for the development of legitimacy theories.Result findings of (Clarkson *et al.*, 2008) and (Clarkson *et al.*, 2011) are consistent, i.e. there is a positive relationship between environmental performance and the level of discretionary environmental disclosure for the five companies classified as the most polluting industry in the United States. High pollution-generating industries, based on Toxics Release Inventory (TRI) measurements, provide a wider discretionary environment disclosure, and vice versa. Variations in disclosure levels among the five types of industries (i.e. pulp and paper, oil refineries, chemical and steel, metals, and mining) aligned also with findings (Plumlee *et al.*, 2015). These results show that the company seeks to legitimize, if its activities threaten the environment (Clarkson *et al.*, 2011).

Plumlee *et al.* (2015) also found a positive correlation between environmental performance and environmental disclosure. In his research, companies with good environmental performance have good environmental disclosure, whereas companies with poor environmental performance have poor environmental disclosures as well. Good environmental performance is measured by the sum of environmental performance strengths, while poor environmental performance is measured by the number of concerns of the company's environmental performance (the sum of environmental performance concerns). Environmental performance instruments refer to Kinder, Lydenberg, and Domini's (KLD's) Socrates database.

Hypothesis should be written. How can a research be done without hypothesis ?

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3. METHODOLOGY - In Methodology (500 to 1000 words), description of the procedure should be written in a logical order under certain title (Variables,Sampling, measurement, data, method used in the analysis) with sufficient detail .

This research is characterized as descriptive and exploratory, as seek to identify the application of content analysis, descriptive statistics and correlation analysis. This research takes a quantitative approach to examine the relationship between Environmental Disclosure Index (ENVID) and Environmental Performance . Such an approach is used because it is focused on explaining associations between the two variables and addressing specific questions about a clearly defined topic. By using a quantitative approach in such a disclosure study, the findings may be more objective and informative for stakeholders and other parties. The stated purpose of this research is to describe the environmental performance, the extent of environmental disclosure and analyze the relationship between environmental performance and the extent of environmental disclosure of companies. Legitimacy theory is the theoretical framework within which these purposes will be pursued. The research approach adopted to achieve these purposes encompasses population of the study, data collection, measurement variables, and statistical analysis.

This study is a population study. It means that all members of the population are observed in accordance with the research variables. Thus there is no sampling, and therefore the results of the analysis are the conclusions for the population. The population of this study is public companies in Indonesia that cause high pollution for the environment, namely companies engaged in the field of pulp and paper, chemicals, oil and gass, metals and minning, and utilities as investigated by (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013). The companies were also classified based on PROPER criteria and Bloomberg database. The PROPER classification include the following type of companies, that are, chemicals, pulp and paper, industrial metal and mining, mining, oil and gas, and utilities (PROPER, 2016), while classification according to Bloomberg database include basic industry and chemicals (animal feed; cement, ceramics, and glass porcelain; chemicals; pulps and paper; metal and allied products); mining (crude petroleum and natural gas production, cool mining, and metal and mineral mining) and infrastructure utility & Transportation (Bloomberg, 2018). Another criterion for members of the population is companies listed in the 2016 PROPER attendance list which are also listed in Indonesia Stock Exchange (BEI) for the period of 2016 and publish their annual report 2016 through www.idx.co.id.

There are three steps in determine the member of the target population. First, identify the membership criteria based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) and also PROPER (2016). In this step, among 1930 companies listed in PROPER 2016, there are 578 companies include 52 chemical companies, 31 pulp and paper companies, 63 industrial metal dan mining companies, 88 mining companies, 216 oil and gas companies, and 128 utilities companies. The Second step, we identify companies that follow PROPER 2016 and at the sametimes are also listed in BEI 2016. This second step result 22 companies. Finally, in the third step we identify companies based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) Clarkson et al ., 2008) criteria adjusted by Bloomberg (2018) classification which result 35 companies. The list of companies that are member of the population is in Appendix 1. The use of 2016 data is due to the importance of a one-year delay to observe company responses to GRI statements (2015) that reports published after 31 December 2015 should be prepared in accordance with G4 guidelines.

After selecting the companies and in order to operationalize this study, the data were collected. 35 annual report from 35 companies were read and content analysis was applied to identify the required data. It should be noted that not all of the 578 high risk companies listed in PROPER were included in the target population. It is because the PROPER assesment can be followed by subsidiary companies or company branches at a specific area, but the company annual reporting listed in BEI is done by the parent company. It is why 578 companies reduced to 35 companies as the member of the target population. This research was done by assumption that if one parent company has PROPER rank from more than one subsidiary company in 2016 than we choose the highest rank as the data.

In order to analize the data, we have used the content analysis technique which seeks to reveal the description of masseges contents based on systematic and objectives procedure (Bardin, 2004 as cited in Altoe, Panhoca, and Espejo (2017)). The information content in the massages was recorded (measured). The recording is the specific segment of content that characterized by placing it in a given category.

This research focusing on two main variables, that are, environmental performance and and the extent of environmental disclosure. The measurement of environmental performance research variables is taken from the PROPER 2016 assessment data under the control of the Ministry of Environment and Forestry of the Republic of Indonesia. Environmental performance is measured by the following rankings: score of five (gold predicate / excellent),

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score of four (green predicate / good), score of three (blue predicate / enough), score 2 (red predicate / bad), and score 1 (black predicate / very bad).

Measurement of the extent of environmental disclosure refers to the indicators according to GRI 2013 that are presented in detail in Appendix 2. The reasons for the use of GRI guidelines by 2013 because they meet global standard qualifications that are internationally accepted and universal (Laine, 2009). Schaltegger (1997) adds that internationally recognized ecological standards have the certainty and guarantee the minimum level of information quality. Thus, the measure indicator of the extension levels has met the validity test requirements. The results of the measurement of the extension levels are expressed in index numbers. Index provides a uniform system of input and coding and is essential for organizing data in each study for a computerized database (Clarkson, 1995). Furthermore, index was given generally to check for the presence or absence of specific items of information. The Environmental Disclosure Index for company j (ENVDj) is difined as follows:

$$ENVD_j = \frac{\sum_{i=1}^{n_j} x_{ij}}{n_j}, \quad x_{ij} = \begin{cases} 1 & \text{, if i th item is disclosed} \\ 0 & \text{, if i th item is not disclosed} \end{cases}$$

This research employ several statistical technique to pursue the objectives of the study. Descriptive statistics and cross classification technique will be used to elaborate the characteristic of the companies based on several aspect such as environmental risk categories that mostly disclosed by the companies. It can also be used to study the trend and indeph analysis concerning the consistency of environmental performance and the extent of environmental disclosure. Gamma coefficient is used as the main statistical techniques to explore wether there is ascociation between environmental performance and the extent of environmental disclosure or not. This nonparametric techniques proposed by Goodman and Kruskal (1979). is used because we consider variable that measured in ordinal scale i.e the environmental performance. To do so, the disclosure index measured in ratio scale has to be converted into ordinal scale by applying rank transformation so that the two variables both have the same scale of measurement.

4. RESULT AND DISCUSSION

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The aims of this study were to explore the level of environmental disclosure and the relationship between environmental performance and environmental disclosure in high risk population companies in Indonesia. This section provides an overview of the environmental disclosure and environmental performance of the 35 population companies that contains many types of company as shown in Figure 1. The type of companies is dominated by chemical and industrial metal and mining, followed by mining, pulp and paper utilities and finally oil and gas.

Figure 1. Number companies by type of industry

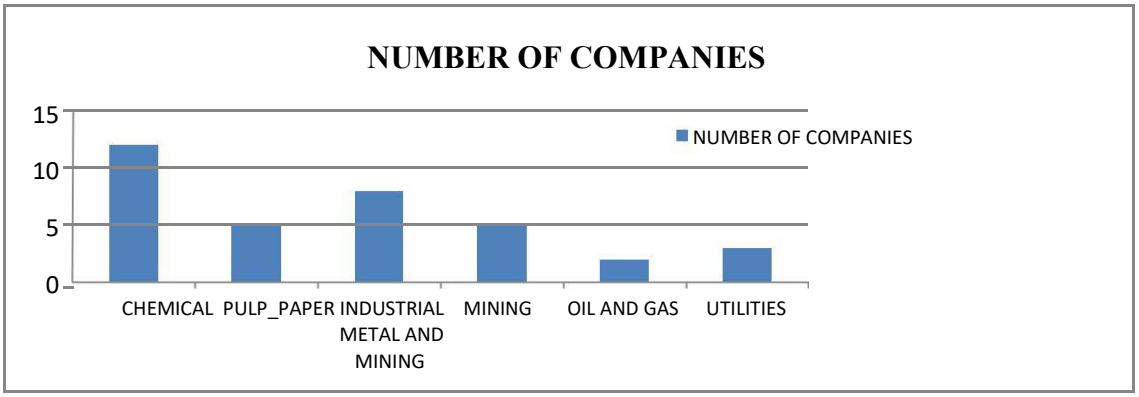

Table 1. PROPER rank by type of industry

	PROPER RANK				TOTAL
TYPE OF COMPANY	RED	BLUE	GREEN	GOLD	
CHEMICAL	0	9	3	0	12
PULP AND PAPER	0	5	0	0	5
INDUSTRIAL AND MINING	1	7	0	0	8
MINING	0	2	2	1	5
OIL AND GAS	0	1	0	1	2
UTILITIES	1	2	0	0	3
TOTAL	2	26	5	2	35
Percentage (%)	5.7	74.3	14.3	5.7	

Based on environmental performance represent by PROPER rank (Table 1), most companies achieve Blue (74.3%), followed by Green (14.3%), Red and Gold 5.7% each. It shows that most of the target population companies have already follow the regulation and a small number of companies (2 companies) has already exceed the regulation and having efficient resourches management and well implementation in social responsibility. The two companies that achieve gold rank show their excellency and consistency in environmental management, ethics, and social responsibility. This finding shows that Indonesia high risk companies have already

follow the Indonesia environmental management regulation (PROPER, 2016). This finding is also support the former result that regulation may improve the environmental performance (Ika *et al.*, 2017). The small numer of companies that achieve green and gold rank indicates that the implementation of social responsibility normatively is still challenging (Ketaren, 2014). Furthermore, programs that empowering the environmental awareness is needed (Waris *et al.*, 2017).

Table 3. Descriptive statistics by PROPER rank

PROPER rank	Mean of disclosure index	Standard deviation
RED	0.114	0.081
BLUE	0.186	0.171
GREEN	0.417	0.233
GOLD	0.357	0.384
TOTAL	0.225	

Table 3 shows the mean of disclosure index based on their proper rank. Generally, it indicates the low level of environmental disclosure (grand mean 0.2245). This fact support the former research result that were done in Indonesia (Mirfazli, 2008; Setiawan and Darmawan, 2011). The reasons of this condition can be describe as follows, 1) the implementation of environment disclosure in Indonesia is still voluntary and haven't yet regulate base on Finance Accounting Standard (*SAK*) (Fauzi, 2014). The consequence is that company report the disclosure content freely (Laan, 2009); 2) The Company has only few social activity (Mirfazli, 2008); 3) CSR's disclosure content in Indonesia provide only information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014; Sharma, 2013) and most of them have incomplete (quantitatively and qualitatively) information disclosure with respect to material, energy, water, biodiversity, emission, waste or garbage, product and services, compliance, pollution, expenditure and environmental investment, supplier assement environmental, and environmental complaint mechanism, as global requirement (GRI, 2015), and 4) environmental disclosure haven't yet treated as a measure of environmental performance like finance performance which happened in developed countries (Sharma, 2013). Furthermore, Waris *et al.* (2017) say that in developing country people give lower pressure to the company in term of environmental responsibility due to the lack of environmental awareness rather than in developed countries.

Table 4 shows the number and their percentage of companies that disclose any categories with respect to environmental issues. The table shows that waste and garbage is

disclosed by 68.6% companies. It means that waste and garbage is the most important category that prioritized by companies to be disclosed. Infact, there are four other categories that also have quite high priority (more than 50%), i.e emission, energy, expenditure and environmental investment. This findings indicate that companies have implement good environmental management system to improve the absolute efficiency of reducing waste (PROPER, 2015). Also, it support Clarkson *et al.* (2013) who stated that the performance indicator disclosure with respect to emission, actual pollution, conservation, and recycle activities give critical information to the stakeholders in evaluate the long term environmental performance and environmental compliance impact.

Table 4. Descriptive statistics by disclosure category

Category	Number of company	%	Category	Number of company	%	Category	Number of company	%
Material	6	17.1	emmision	22	62.9	transportation	5	14.3
Energy	22	62.9	effluents and waste	24	68.6	expenditure and environmental investment	19	54.3
Water	9	25.7	product and service	15	42.9	supplier	9	25.7
Biodiversity	20	57.1	compliance	13	37.1	complaint mechanism	9	25.7

Table 5 shows the cross classification between the type of company and the environmental disclosure represented by the category of the extent of disclosure. In the last column present the mean value of disclosure index. It shows that mining company is the most (58.29%) in disclosing environmental information followed by chemical (21.43%) and others with less than 20 percent on the average. Based on Table 5, there is a big discrepancy between type of company in disclose environmental information which is also consistent with Tan, Benni, and Liani (2016) and Trireksani and Djajadikerta (2016). Test of association between type of company and the category of the extent of disclosure using contingency coefficient (Table 6) shows the same conclusion (significant under α=0.05).

Table 5. A cross classification between type of company and environmental disclosure

	The category of the extent of		

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Type of Company	disclosure			Total number of company	Mean of disclosure index
	1	2	3		
CHEMICAL	9	3	0	12	0.2143
PULP AND PAPER	4	1	0	5	0.1657
INDUSTRIAL AND MINING	8	0	0	8	0.1107
MINING	0	1	4	5	0.5829
OIL AND GAS	2	0	0	2	0.0429
UTILITIES	2	1	0	3	0.1905
Total	25	6	4	35	

Table 6. The extent of disclosure using contingency coefficient

		Value	Approx. Sig.
Nominal by Nominal	Contingency Coefficient	0.688	0.000

The mining company presented moderate level of disclosure information support is consistent with Trireksani and Djajadikerta (2016). The mining company disclose more than other type of company because they have greater operation area that may impact to the larger environment. This finding support the legitimacy theory that the greater the impact of company to the environment, the more widespread its environmental disclosure (Clarkson *et al.*, 2008).

Table 7. Extent of Disclosure by category

	The category of the extent of disclosure			
PROPER RANK	1	2	3	Total
RED	2	0	0	2
BLUE	20	5	1	26
GREEN	2	3	0	5
GOLD	1	0	1	2
Total	25	8	2	35

Table 7 shows cross classification between environmental performance which is represented by PROPER RANK and environmental disclosure which is represented by the category of the extent of disclosure. Numbers in the cells is the number of company satisfied the cross category. The extent of disclosure is categorized into three categories in term of the percentage of environmental indicator being disclosed, i.e 1= less than 30%, 2=disclose 30%-60%, and 3=disclose more then 60%. Generally, the table demonstrate the awareness of companies in disclosing environmental issues in their annual report. Most of the companies, which are 25 out of 35 (71.42%), disclose only less than 30% with respect to environmental issues including 20 companies having blue PROPER rank and, unfortunately, include one company with gold rank. On the otherhand, there is one company with gold rank disclose more than 60% as what

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we expected that PROPER rank should be consistent with the extent of disclosure. This finding shows that companies having good environmental performance (blue, green, and gold) are not otomatically have high percentage (more information) in disclosing the environmental issues (Waras, 2017). Most of the companies inform their environmental performance in the annual report but do not describe their environmental activities in detail.

The above description is also supported by the statistical test of association between environmental performance and environmental disclosure. The Gamma coefficient of association showed in table 4.7 is not significant under α=0.05.

Table 8. The Gamma Coefficient of Association

Gamma	Asymp. Std. Error	Approx. Tb	Approx. Sig.
0.642	0.215	1.847	0.065

Strictly speaking, environmental performance is not associated with environmental disclosure. This finding is the same as the conclusion resulted by Sutantoputra, Lindorff, and Johnson (2012) who say that there is no evidence that good performers disclose more as a way of promoting themselves and separating themselves from poor performance.

Sutantoputra *et al.* (2012) state that, in general (not specifically), disclosure is a company way of promoting environmental awareness to the society and there is an untested complex range of forces that imply non-significance relationship between environmental performance and environmental disclosure. The low extent of environmental disclosure is also show that most of the companies do not reference GRI
as a reporting standard. It means that most of company annual report haven't shown sustainability oriented yet. Some researches showed that social responsibility disclosure content in Indonesia is dominated by information about clarity activities, philantropy and social involvement (Fauzi, 2014;

Gunawan, 2007; Hermawan and Mulyawan, 2014) and that Indonesia companies haven't treat equivalently environmental performance, social performance, and finance performance like in developed countries (Sharma, 2013). The low level of environmental disclosure found in this research is also matching with the fact found by Waris *et al.* (2017) that community in developing countries have low awareness with respect to the importance of environmental disclosure.

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5. CONCLUSION **this part of the article needs to be rearranged e.g the underlined paragraph should be written just before implication under title Limitation of the study**

Based on PROPER ranking (PROPER, 2016), most companies have blue rank in environmental management (according to the law), the second largest is green (environmental management goes beyond regulation and efficient in utilizing resources and performs social responsibility well), and the smallest is gold rank (superior and consistent in environmental management and ethical and responsible to the community) and red (environmental management is not in accordance with legislation).

The extent of environmental disclosure referred to GRI (2013) is low. The extent of discloseure and the content varies over type of company. The low level of disclosure indicates that most companies have not follow the standard of sustainability reporting, since the disclosure is still voluntary. Based on disclosure index, the mining companies present the broadest disclosure rate followed by chemical companies, utilities companies, pulp and paper companies, industrial metal and mining companies, and oil and gas companies. Based on the category of environmental disclosure contents, most companies disclose about waste and garbage issues followed by emissions and energy, biodiversity, environmental expenditures and investments. The relatively few are products and services, suppliers, and complaints mechanism, while the least is about material and transportation.

This study found no correlation between environmental performance and the extent of environmental disclosure. That is, high company performance is not always followed by extensive disclosure, and vice versa. The fact that the company's environmental performance and the extent of environmental disclosure are uncorrelated, while enviromental performance is still predominantly blue and the environmental disclosure is low level may explain that the company's environmental activities are intended to enhance the company's reputation that ultimately achieves legitimacy.

The result of this study is limited on a small number of target population and focusing on the high risk company with respect to environment. In the next study need to increase the size of the population, the study period, and add the type of company that has a low risk. The environmental performance used in this study is based on the results of the environmental management performance assessment (PROPER) rating in 2016. In the next research can be developed by using other environmental performance measurements, such as CO_2 concentration and greenhouse gas emission rate.

This study show that one parent company can follow the rating program performance assessment of environmental management as much as subsidiary companies or the number of operating units. Therefore, the ranking of a company varies. This study assumes that the best ranking of environmental performance achieved is being used as the data analysis. Given the use of these assumptions, then in the next research we suggest to use rating assumption that better represents the condition of the company.

In this study, the measurement of the extent of environmental disclosure use the following rule, that is by giving a score of one when the annual report contain information and zero otherwise based on the sub categories of GRI. Considering the contents in each subcategory contains many elements, a score
of one will be given when there is at least one element disclose by the company. In subsequent research, scoring may use more gradations in the form of a more representative scale.

Awareness of environmental management by high risk companies with respect to the environment is increasing. The awareness is showed by the fact that most companies have achieved good enough ratings until very well. In contrast, the facts show that the extent of environmental disclosure is still low. One reason is that environmental disclosure for companies in Indonesia is still voluntary. Sutantoputra *et al.* (2012) also states that voluntary disclosure is not a reliable way of assessing company environmental behavior. For this reason, the government needs to introduce mandatory reporting that will produce publicly available information on the company's environmental performance with various indicators. The implication is to encourage mandatory disclosure of the environment, so that disclosure is not only broad but increasingly qualified.

Acknowledgment – Any financial or nonfinancial should be written here

REFERENCE - All in-text citation needs to be hyperlinked, some references are missing

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Fwd:

From: Faisal Thahir (fe_faisal@yahoo.co.id)

To: cornelio.purwantini@yahoo.com; andrikuwat@gmail.com; etnanurafri@yahoo.com

Date: Monday, June 17, 2019 at 09:48 AM GMT+7

Tolong diperbaiki segera ya untuk publikasi. Fee USD 450

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From: Yuliansyah Yuliansyah <yuliansyah@feb.unila.ac.id>
Date: 17 June 2019 at 9:12:35 AM GMT+10
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From: Cornelio Purwantini (cornelio.purwantini@yahoo.com)

To: aris.dwiatmoko@gmail.com

Date: Monday, June 17, 2019 at 02:07 PM GMT+7

aris.dwiatmoko@gmail.com

Sent from Yahoo Mail on Android

> ----- Forwarded Message -----
> **From:** "Faisal Thahir" <fe_faisal@yahoo.co.id>
> **To:** "Cornelio Purwantini" <cornelio.purwantini@yahoo.com>, "Andri Prastiwi" <andrikuwat@gmail.com>, "Etna Nur A Y" <etnanurafri@yahoo.com>

> **Sent:** Mon, Jun 17, 2019 at 9:48
> **Subject:** Fwd:
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> Tolong diperbaiki segera ya untuk publikasi. Fee USD 450
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> Begin forwarded message:
>
> **From:** Yuliansyah Yuliansyah <yuliansyah@feb.unila.ac.id>
> **Date:** 17 June 2019 at 9:12:35 AM GMT+10
> **To:** fe_faisal@yahoo.co.id

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THE RELATIONSHIP BETWEEN ENVIRONMENTAL PERFORMANCE AND THE EXTENT OF ENVIRONMENTAL DISCLOSURE

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ABSTRACT

The purpose of this study: This study examines the relationship between environmental performance and the extent of environmental disclosure.

Methodology: Sample of this study consists of thirty-five high profile companies. The environmental performance is measured based on the results of the PROPER assessment and the extent of environmental disclosure index by using GRI checklist items. This research applies content analysis, descriptive and inferential statistical analysis.

Main Findings: The result shows that on average, the extent of environmental disclosure is low (22.5%). Mining companies provide highest environmental disclosure (58.2%) followed by chemicals (21.4%), utilities (19.0%), pulp and papers (16.5%), industrial (11.0%), and oil and gas (4.2%). The analysis also presents that environmental performance doesn't have effect on level of environmental disclosure.

Implications: This result suggests that high environmental performance may not encourage companies to communicate more environmental issues. This finding indicates that motivation for a company to disclose environmental information is not always based on the legitimacy perspectives but might be an accountability form.

Keywords: *environmental performance, environmental disclosure, legitimacy, high profile industry, PROPER*

1. INTRODUCTION

Currently, issues on environmental disclosure and environmental performance have still attracted the attention of academics. This is because the findings of the prior studies are still varied (Campopiano and Massis, 2015; Patten, 2005; Plumlee, Brown, Hayes, and Marshall, 2015). Knowing to what extent environmental disclosure and environmental performance are important, as it can provide additional information to assess corporate performance (Clarkson, Fang, Li, and Richardson, 2013). Corporate environmental performance provides useful information to stakeholders (K.E. Hughes, 2000). Previous studies suggested that corporate environmental performance as a form of ethical actions of corporate (Cormier, Magnan, and Morard, 1993), moral responsibility (Woodward, Edwards, and Birkin, 1996), compliance with regulations, corporate longterms performance indicator (Clarkson *et al.*, 2013). One of the corporate performance indicators is financial benefits. For

example, PT. Bukit Asam Tbk has financial benefits such as increased in profit, community empowerment and competitiveness after transformed from coal mining company into a provider of environmentally renewable energy (PROPER[1],2015).

The report released Program Pemeringkatan Kinerja Perusahaan (PROPER) in 2016 suggested that the environmental performance of Indonesian companies is still low. In addition, from 1930 companies, the majority of companies (73.68%) recently categorized as blue (fairly well). It is shown by the low level of utilization of hazardous materials and toxic waste (reduce, recycle, refuse/3R) in industry sectors. For example, in 2016, the utilization of B3 in mining, oil and gas industries is only 18.16% and manufacturing is13.46%. Based on the findings of the report, it showed that the environmental performance of Indonesian companies has not been satisfactory. The low of the performance may be caused by low awareness and adherence to the regulations.

In terms of studies on the relationship between environmental performance and environmental disclosure, the findings of previous studies are varied. Some studies suggested that company that has a good environmental performance tend to disclose more information (Clarkson, Li, Richardson, and Vasvari, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007). In contrast, Patten (2002) found a negative correlation between environmental performance and the extent of environmental disclosure, while Ingram and Frazier (1980) and Patten (2005) concludes there is no correlation. Due to the inconsistency of these findings, this study is aimed to investigate the relationship between environmental performance and environmental disclosure. Waris, George, and Zeeshan (2017) argued that the existence of a different public pressure in environmental responsibility between developing countries (such as Indonesia) and developed countries. This study focused on high profiles companies listed companies on Indonesia Stock Exchange (IDX) in 2016. The high profiles companies such as mining, pulp and paper, oil and gas, chemicals, utilities, were chosen as their operations have a significant impact on environment conditions (Clarkson *et al.*, 2008; Faisal and Achmad, 2014; Hasseldine, Salama, and Toms, 2005; Patten, 2005).

2. LITERATURE REVIEW

Deegan (2007) and Hasseldine *et al.* (2005) argued that company with bad reputation will left behind by the market. Furthermore, they explain that company that is not operating in harmony with the environment and society can lead to high costs until absence of approval from community. Corporate environmental disclosure is one of media communications to

stakeholders in oreder to legitimize corporate's operations (Cho and Patten, 2007; Neu, Warsame, and Pedwell, 1998; Patten, 2005) and fulfilling social contract by complying with regulations in order to achieve corporate accountability (Tilt, 1994; Woodward *et al.*, 1996). Environmental disclosure can also improve the perception of stakeholders about corporate environmental management (Cho and Patten, 2007). Level of sensitivity to impact of company operation on environmental may affect extent of environmental disclosure (Cowen, Ferreri, and D.Parker, 1987; Hackston and Markus J. Milne, 1996; Patten, 1991, 1992; Plumlee *et al.*, 2015). Past studies showed that company that potentially cause damage to environment such as high profile companies disclosed more information than low profile companies (Clarkson *et al.*, 2011; Clarkson *et al.*, 2013; Hasseldine *et al.*, 2005).

Environmental performance can also drive the extent of environmental disclosure. The impact of environmental performance disclosure, whether it brings favorable, neutral, or unfavorable to company performance will become company's risks (Cormier and Magnan, 1999). Environmental disclosure can be used as a means of legitimizing the company (Cho and Patten, 2007). In addition through the disclosure of the environment, the company's attempt to gain legitimacy is by participating in environmental performance assessments conducted by external parties. A good environmental performance is ideally followed by extensive disclosure. Positive correlations were found between the ratings conducted by external and independent party regarding the company's environmental responsibilities and the disclosure levels of CSR (Clarkson *et al.*, 2008, 2011; Plumlee *et al.*, 2015; Staden and Hooks, 2007).

The disclosure of actual performance on pollution emissions, conservation and recycling efforts provides critical information for stakeholders to assess environmental performance, assess long-term company commitment, and for investors can also be used to assess the impact of environmental compliance related to future operations and financial performance (Clarkson *et al.*, 2013). Environmental performance based on toxic emissions can be used by external management and stakeholders to examine the relationship of future environmental liability disclosure and the market value of the company's equity (K.E. Hughes, 2000). The risks caused by company's operation related with the level of environmental disclosure. Based on the information content revealed, Cormier and Magnan (1999) found companies producing high levels of pollution such as pulp and paper revealed more environmental information than oil, chemical and steel, metals and mining companies. Pulp and paper mills become the target of pollution-consuming stakeholders, because they

consume large amounts of water and are usually located near rivers that are often located near population centers. Plumlee *et al.* (2015) also shows that industries with a large impact on the environment have higher disclosure values and firms more often disclose positive environmental information than neutral and negative ones. Cho and Patten (2007) show different findings. Environmental-sensitive companies often disclose negative information rather than neutral disclosure, but vice versa for companies in insensitive industries, in order to improve stakeholders' perceptions of environmental management.

The former researches showed that the increasing of environmental performance disclosure correlate with the extent of environmental disclosure. A positive correlation between an external rating based on the UK Index Environmental Engagement and the extent of disclosure was found (Staden and Hooks, 2007). These findings suggest that environmental disclosure reflects company responsibility to the environment and is a form of support for the development of legitimacy theories. Result findings of Clarkson *et al.* (2008) and Clarkson *et al.* (2011) are consistent, i.e. there is a positive relationship between environmental performance and the level of discretionary environmental disclosure for the five companies classified as the most polluting industry in the United States. High pollution-generating industries, based on Toxics Release Inventory (TRI) measurements, provide a wider discretionary environment disclosure, and vice versa. Variations in disclosure levels among the five types of industries (i.e. pulp and paper, oil refineries, chemical and steel, metals, and mining) aligned also with findings Plumlee *et al.* (2015). These results show that the company seeks to legitimize, if its activities threaten the environment (Clarkson *et al.*, 2011).

Plumlee *et al.* (2015) also found a positive correlation between environmental performance and environmental disclosure. In his research, companies with good environmental performance have good environmental disclosure, whereas companies with poor environmental performance have poor environmental disclosures as well. Good environmental performance is measured by the sum of environmental performance strengths, while poor environmental performance is measured by the number of concerns of the company's environmental performance (the sum of environmental performance concerns). Environmental performance instruments refer to Kinder, Lydenberg, and Domini's (KLD's) Socrates database. Based on the empirical evidence, the hypothesis is formulated as follows:

H1: there is a positive correlation between corporate environmental performance and the extent of corporate environmental disclosures.

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3. METHODOLOGY .

3.1 Variables

This research focusing on two main variables, that are, environmental performance and and the extent of environmental disclosure.

3.2 Sampling

The population of this study is public companies in Indonesia that cause high pollution for the environment, namely companies engaged in the field of pulp and paper, chemicals, oil and gass, metals and minning, and utilities as investigated by (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013). The companies were also classified based on PROPER criteria and Bloomberg database. The PROPER classification include the following type of companies, that are, chemicals, pulp and paper, industrial metal and mining, mining, oil and gas, and utilities (PROPER, 2016), while classification according to Bloomberg database include basic industry and chemicals (animal feed; cement, ceramics, and glass porcelain; chemicals; pulps and paper; metal and allied products); mining (crude petroleum and natural gas production, cool mining, and metal and mineral mining) and infrastructure utility & Transportation (Bloomberg, 2018). Another criterion is companies listed in the 2016 PROPER attendance list which are also listed in Indonesia Stock Exchange (BEI) for the period of 2016 and publish their annual report 2016 through www.idx.co.id.

There are three steps in determine the member of the selected samples. First, identify the membership criteria based on (Clarkson *et al.*, 2008, 2011; Clarkson *et al.*, 2013) and also PROPER (2016). In this step, among 1930 companies listed in PROPER 2016, there are 578 companies include 52 chemical companies, 31 pulp and paper companies, 63 industrial metal and mining companies, 88 mining companies, 216 oil and gas companies, and 128 utilities companies. The Second step, we identify companies that follow PROPER 2016 and at the sametimes are also listed in BEI 2016. This second step result 22 companies. Finally, in the third step we identify companies based on Clarkson *et al.* (2008), Clarkson *et al.* (2011), Clarkson *et al.* (2013) criteria adjusted by Bloomberg (2018) classification which result 35 companies. The use of 2016 data is due to the importance of a one-year delay to observe company responses to GRI statements (GRI, 2015) that reports published after 31 December 2015 should be prepared in accordance with G4 guidelines.

3.3 Measurement

The measurement of environmental performance research variables is taken from the PROPER 2016 assessment data under the control of the Ministry of Environment and Forestry of the Republic of Indonesia. Environmental performance is measured by the following rankings: score of five (gold predicate/excellent), score of four (green predicate / good), score of three (blue predicate/enough), score 2 (red predicate/bad), and score 1 (black predicate/very bad).

Measurement of the extent of environmental disclosure refers to the indicators according to GRI (2013). The reasons for the use of GRI guidelines by 2013 because they meet global standard qualifications that are internationally accepted and universal (Laine, 2009). Schaltegger (1997) adds that internationally recognized ecological standards have the certainty and guarantee the minimum level of information quality. Thus, the measure indicator of the extension levels has met the validity test requirements. The results of the measurement of the extension levels are expressed in index numbers. Index provides a uniform system of input and coding and is essential for organizing data in each study for a computerized database (Clarkson, 1995). Furthermore, index was given generally to check for the presence or absence of specific items of information. The Environmental Disclosure Index for company j (ENVDj) is difined as follows:

$$\text{ENVD}_i = \frac{\sum_{i=1}^{n_j} x_{ij}}{n_j}, \quad \text{where } x_{ij} = \begin{cases} 1 & \text{, if } i^{th} \text{ item is disclosed} \\ 0 & \text{, if } i^{th} \text{ item is not disclosed} \end{cases}$$

3.4 Data

After selecting the companies and in order to operationalize this study, the data were collected. 35 annual report from 35 companies were read and content analysis was applied to identify the required data. It should be noted that not all of the 578 high risk companies listed in PROPER were included in the target population. It is because the PROPER assesment can be followed by subsidiary companies or company branches at a specific area, but the company annual reporting listed in BEI is done by the parent company. It is why among 578 companies we have 35 companies as the selected samples. This research was done by assumption that if one parent company has PROPER rank from more than one subsidiary company in 2016 than we choose the highest rank as the data.

3.5 Method

This research is characterized as descriptive and exploratory, as seek to identify the application of content analysis, descriptive statistics and correlation analysis. This research takes a quantitative approach to examine the relationship between two variables

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Environmental Disclosure Index (ENVID) and Environmental Performance. Such an approach is used because it is focused on explaining associations between the two variables and addressing specific questions about a clearly defined topic. By using a quantitative approach in such a disclosure study, the findings may be more objective and informative for stakeholders and other parties. The stated purpose of this research is to describe the environmental performance, the extent of environmental disclosure and analyze the relationship between environmental performance and the extent of environmental disclosure of companies. The extent of environmental disclosure data was extracted from the annual report by using content analysis technique which seeks to reveal the description of masseges contents based on systematic and objectives procedure Bardin (2004) as cited in Altoe, Panhoca, and Espejo (2017). The information content in the massages was recorded (measured). The recording is the specific segment of content that characterized by placing it in a given category. Legitimacy theory is the theoretical framework within which these purposes will be pursued.

This research employ several statistical technique to pursue the objectives of the study. Descriptive statistics and cross classification technique will be used to elaborate the characteristic of the companies based on several aspect such as environmental risk categories that mostly disclosed by the companies. It can also be used to study the trend and indeph analysis concerning the consistency of environmental performance and the extent of environmental disclosure. Gamma coefficient is used as the main statistical techniques to explore wether there is ascociation between environmental performance and the extent of environmental disclosure or not. This nonparametric techniques proposed by Goodman and Kruskal (1979) is used because we consider variable that measured in ordinal scale i.e the environmental performance. To do so, the disclosure index measured in ratio scale has to be converted into ordinal scale by applying rank transformation so that the two variables both have the same scale of measurement. The Gamma coeffient is calculated uses the following formula:

$$\gamma = \frac{N_c - N_d}{N_c + N_d},$$

Where N_c is the total number of pairs that rank the same (concordant pairs)

N_d is the number of pairs that don't rank the same (discordant pairs).

4. RESULT AND DISCUSSION

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The aims of this study were to explore the level of environmental disclosure and the relationship between environmental performance and environmental disclosure in high risk population companies in Indonesia. This section provides an overview of the environmental disclosure and environmental performance of the 35 population companies that contains many types of company as shown in Figure 1. The type of companies is dominated by chemical and industrial metal and mining, followed by mining, pulp and paper utilities and finally oil and gas.

Figure 1. Number companies by type of industry

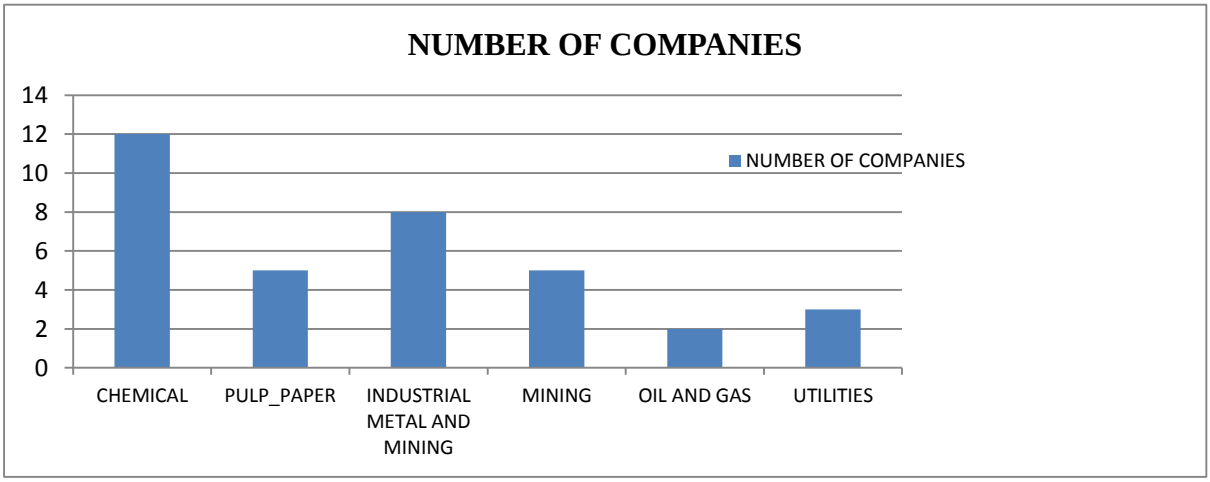

Table 1. PROPER rank by type of industry

TYPE OF COMPANY	PROPER RANK				TOTAL
	RED	BLUE	GREEN	GOLD	
CHEMICAL	0	9	3	0	12
PULP AND PAPER	0	5	0	0	5
INDUSTRIAL AND MINING	1	7	0	0	8
MINING	0	2	2	1	5
OIL AND GAS	0	1	0	1	2
UTILITIES	1	2	0	0	3
TOTAL	2	26	5	2	35
Percentage (%)	5.7	74.3	14.3	5.7	

Based on environmental performance represent by PROPER rank (Table 1), most companies achieve Blue (74.3%), followed by Green (14.3%), Red and Gold 5.7% each. It shows that most of the target population companies have already follow the regulation and a small number of companies (2 companies) has already exceed the regulation and having efficient resourches management and well implementation in social responsibility. The two companies that achieve gold rank show their excellency and consistency in environmental management, ethics, and social responsibility. This finding shows that Indonesia high risk companies have

already follow the Indonesia environmental management regulation (PROPER, 2016). This finding is also support the former result that regulation may improve the environmental performance (Ika, Dwiwinarno, and Widagdo, 2017). The small number of companies that achieve green and gold rank indicates that the implementation of social responsibility normatively is still challenging (Ketaren, 2014). Furthermore, programs that empowering the environmental awareness is needed (Waris *et al.*, 2017).

Table 3. Descriptive statistics by PROPER rank

PROPER Rank	Mean of Disclosure Index	Standard Deviation
RED	0.114	0.081
BLUE	0.186	0.171
GREEN	0.417	0.233
GOLD	0.357	0.384
TOTAL	0.225	

Table 3 shows the mean of disclosure index based on their proper rank. Generally, it indicates the low level of environmental disclosure (grand mean 0.2245). This fact support the former research result that were done in Indonesia (Mirfazli, 2008; Setiawan and Darmawan, 2011). The reasons of this condition can be describe as follows, 1) the implementation of environment disclosure in Indonesia is still voluntary and haven't yet regulate base on Finance Accounting Standard (*SAK*) (Fauzi, 2014). The consequence is that company report the disclosure content freely (Laan, 2009); 2) The Company has only few social activity (Mirfazli, 2008); 3) CSR's disclosure content in Indonesia provide only information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014; Sharma, 2013) and most of them have incomplete (quantitatively and qualitatively) information disclosure with respect to material, energy, water, biodiversity, emission, waste or garbage, product and services, compliance, pollution, expenditure and environmental investment, supplier assement environmental, and environmental complaint mechanism, as global requirement (GRI, 2015), and 4) environmental disclosure haven't yet treated as a measure of environmental performance like finance performance which happened in developed countries (Sharma, 2013). Furthermore, Waris *et al.* (2017) say that in developing country people give lower pressure to the company in term of environmental responsibility due to the lack of environmental awareness rather than in developed countries.

Table 4 shows the number and their percentage of companies that disclose any categories with respect to environmental issues. The table shows that waste and garbage is disclosed by 68.6% companies. It means that waste and garbage is the most important

category that prioritized by companies to be disclosed. Infact, there are four other categories that also have quite high priority (more than 50%), i.e emission, energy, expenditure and environmental investment. This findings indicate that companies have implement good environmental management system to improve the absolute efficiency of reducing waste (PROPER, 2015). Also, it support Clarkson *et al.* (2013) who stated that the performance indicator disclosure with respect to emission, actual pollution, conservation, and recycle activities give critical information to the stakeholders in evaluate the long term environmental performance and environmental compliance impact.

Table 4. Descriptive statistics by disclosure category

Category	Number of company	%	Category	Number of company	%	Category	Number of company	%
Material	6	17.1	Emission	22	62.9	Transportation	5	14.3
Energy	22	62.9	Affluents and waste	24	68.6	Expenditure and environmental investment	19	54.3
Water	9	25.7	Product and service	15	42.9	Supplier	9	25.7
Biodiversity	20	57.1	Compliance	13	37.1	Complaint mechanism	9	25.7

Table 5 shows the cross classification between the type of company and the environmental disclosure represented by the category of the extent of disclosure. In the last column present the mean value of disclosure index. It shows that mining company is the most (58.29%) in disclosing environmental information followed by chemical (21.43%) and others with less than 20 percent on the average. Based on Table 5, there is a big discrepancy between type of company in disclose environmental information which is also consistent with Tan, Benni, and Liani (2016) and Trireksani and Djajadikerta (2016). Test of association between type of company and the category of the extent of disclosure using contingency coefficient (Table 6) shows the same conclusion (significant under α=0.05).

Table 5. A cross classification between type of company and environmental disclosure

Type of Company	The category of the extent of disclosure			Total number of company	Mean of Disclosure Index
	1	2	3		
CHEMICAL	9	3	0	12	0.2143
PULP AND PAPER	4	1	0	5	0.1657
INDUSTRIAL AND MINING	8	0	0	8	0.1107
MINING	0	1	4	5	0.5829
OIL AND GAS	2	0	0	2	0.0429
UTILITIES	2	1	0	3	0.1905
TOTAL	25	6	4	35	

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Table 6. The extent of disclosure using contingency coefficient

		Value	Approx. Sig.
Nominal by nominal	Contingency Coefficient	0.688	0.000

The mining company presented moderate level of disclosure information support is consistent with Trireksani and Djajadikerta (2016). The mining company disclose more than other type of company because they have greater operation area that may impact to the larger environment. This finding support the legitimacy theory that the greater the impact of company to the environment, the more widespread its environmental disclosure (Clarkson *et al.*, 2008).

Table 7. Extent of Disclosure by category

PROPER RANK	1	2	3	Total
RED	2	0	0	2
BLUE	20	5	1	26
GREEN	2	3	0	5
GOLD	1	0	1	2
Total	25	8	2	35

Table 7 shows cross classification between environmental performance which is represented by PROPER RANK and environmental disclosure which is represented by the category of the extent of disclosure. Numbers in the cells is the number of company satisfied the cross category. The extent of disclosure is categorized into three categories in term of the percentage of environmental indicator being disclosed, i.e 1= less than 30%, 2=disclose 30%-60%, and 3=disclose more then 60%. Generally, the table demonstrate the awareness of companies in disclosing environmental issues in their annual report. Most of the companies, which are 25 out of 35 (71.42%), disclose only less than 30% with respect to environmental issues including 20 companies having blue PROPER rank and, unfortunately, include one company with gold rank. On the otherhand, there is one company with gold rank disclose more than 60% as what we expected that PROPER rank should be consistent with the extent of disclosure. This finding shows that companies having good environmental performance (blue, green, and gold) are not otomatically have high percentage (more information) in disclosing the environmental issues (Waris *et al.*, 2017). Most of the companies inform their environmental performance in the annual report but do not describe their environmental activities in detail.

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The above description is also supported by the statistical test of association between environmental performance and environmental disclosure. The Gamma coefficient of association showed in table 8 is not significant under α=0.05.

Tabel 8. The Gamma Coefficient of Association

Gamma	Asymp. Std. Error	Approx. Tb	Approx. Sig.
0.642	0.215	1.847	0.065

Strictly speaking, environmental performance is not associated with environmental disclosure. This finding is the same as the conclusion resulted by Sutantoputra, Lindorff, and Johnson (2012) who say that there is no evidence that good performers disclose more as a way of promoting themselves and separating themselves from poor performance.

Sutantoputra *et al.* (2012) state that, in general (not specifically), disclosure is a company way of promoting environmental awareness to the society and there is an untested complex range of forces that imply non-significance relationship between environmental performance and environmental disclosure. The low extent of environmental disclosure is also show that most of the companies do not reference GRI as a reporting standard. It means that most of company annual report haven't shown sustainability oriented yet. Some researches showed that social responsibility disclosure content in Indonesia is dominated by information about clarity activities, philantropy and social involvement (Fauzi, 2014; Gunawan, 2007; Hermawan and Mulyawan, 2014) and that Indonesia companies haven't treat equivalently environmental performance, social performance, and finance performance like in developed countries (Sharma, 2013). The low level of environmental disclosure found in this research is also matching with the fact found by Waris *et al.* (2017) that community in developing countries have low awareness with respect to the importance of environmental disclosure.

5. CONCLUSION

Based on PROPER ranking (PROPER, 2016), most companies have blue rank in environmental management (according to the law), the second largest is green (environmental management goes beyond regulation and efficient in utilizing resources and performs social responsibility well), and the smallest is gold rank (superior and consistent in environmental

management and ethical and responsible to the community) and red (environmental management is not in accordance with legislation).

The extent of environmental disclosure referred to GRI (2013) is low. The extent of discloseure and the content varies over type of company. The low level of disclosure indicates that most companies have not follow the standard of sustainability reporting, since the disclosure is still voluntary. Based on disclosure index, the mining companies present the broadest disclosure rate followed by chemical companies, utilities companies, pulp and paper companies, industrial metal and mining companies, and oil and gas companies. Based on the category of environmental disclosure contents, most companies disclose about waste and garbage issues followed by emissions and energy, biodiversity, environmental expenditures and investments. The relatively few are products and services, suppliers, and complaints mechanism, while the least is about material and transportation.

This study found no correlation between environmental performance and the extent of environmental disclosure. That is, high company performance is not always followed by extensive disclosure, and vice versa. The fact that the company's environmental performance and the extent of environmental disclosure are uncorrelated, while enviromental performance is still predominantly blue and the environmental disclosure is low level may explain that the company's environmental activities are intended to enhance the company's reputation that ultimately achieves legitimacy.

Awareness of environmental management by high risk companies with respect to the environment is increasing. The awareness is showed by the fact that most companies have achieved good enough ratings until very well. In contrast, the facts show that the extent of environmental disclosure is still low. One reason is that environmental disclosure for companies in Indonesia is still voluntary. Sutantoputra *et al.* (2012) also states that voluntary disclosure is not a reliable way of assessing company environmental behavior.

Limitation of the Study

The result of this study is limited on a small number of target population and focusing on the high risk company with respect to environment. In the next study need to increase the size of the population, the study period, and add the type of company that has a low risk. The environmental performance used in this study is based on the results of the environmental management performance assessment (PROPER) rating in 2016. In the next research can be developed by using other environmental performance measurements, such as CO_2 concentration and greenhouse gas emission rate.

Implications

This study show that one parent company can follow the rating program performance assessment of environmental management as much as subsidiary companies or the number of operating units. Therefore, the ranking of a company varies. This study assumes that the best ranking of environmental performance achieved is being used as the data analysis. Given the use of these assumptions, then in the next research we suggest to use rating assumption that better represents the condition of the company.

In this study, the measurement of the extent of environmental disclosure use the following rule, that is by giving a score of one when the annual report contain information and zero otherwise based on the sub categories of GRI. Considering the contents in each subcategory contains many elements, a score of one will be given when there is at least one element disclose by the company. In subsequent research, scoring may use more gradations in the form of a more representative scale.

Since voluntary disclosure is not a reliable way of assessing company environmental behavior, then the government needs to introduce mandatory reporting that will produce publicly available information on the company's environmental performance with various indicators. The implication is to encourage mandatory disclosure of the environment, so that disclosure is not only broad but increasingly qualified.

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