

# The effect of financial performance on environmental disclosure of mining sector companies listed on IDX

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## ABSTRACT

*This study aims to examine the effect of financial performance on environmental disclosure in mining sector companies listed on the Indonesia Stock Exchange (IDX) 2012-2014. The data were analyzed using multiple linear regression analysis, with a significance level of 0.05. The samples used in this study are mining sector companies listed on the Indonesia Stock Exchange 2012-2014 and they disclosed their annual reports and environmental condition for three consecutive years. The results of this study show that the variable of profitability has an effect on environmental disclosure. However, when controlled using variable control, it has no effect. Meanwhile, the variable of Tobin's Q has no effect on environmental disclosure either controlled or not controlled by other variables. The implication of this study is that companies should improve their financial performance and environmental disclosure that could provide good news to public. So, the publication of financial statements and environmental disclosure can be useful not only for shareholders but also stakeholders.*

## ABSTRAK

*Penelitian ini bertujuan untuk menguji pengaruh kinerja keuangan pada pengungkapan lingkungan pada perusahaan sektor pertambangan yang terdaftar di Bursa Efek Indonesia (BEI) 2012-2014. Data dianalisis dengan menggunakan analisis regresi linier berganda, dengan tingkat signifikansi 0,05. Sampel yang digunakan dalam penelitian ini adalah perusahaan sektor pertambangan yang terdaftar di Bursa Efek Indonesia 2012-2014 dan mereka mengungkapkan laporan tahunan mereka dan kondisi lingkungan selama tiga tahun berturut-turut. Hasil penelitian ini menunjukkan bahwa variabel profitabilitas memiliki efek pada pengungkapan lingkungan. Namun, ketika dikontrol dengan menggunakan kontrol variabel, tidak memiliki efek. Sementara itu, variabel Tobin Q tidak berpengaruh pada pengungkapan lingkungan baik dikendalikan atau tidak dikendalikan oleh variabel lain. Implikasi dari penelitian ini adalah bahwa perusahaan harus meningkatkan kinerja keuangan mereka dan pengungkapan lingkungan yang bisa memberikan kabar baik kepada masyarakat. Jadi, publikasi laporan keuangan dan pengungkapan lingkungan dapat berguna tidak hanya bagi para pemegang saham tetapi juga stakeholders.*

## 1. INTRODUCTION

Environmental and social issues have always become a topic of discussion in the world recently, especially in mining sector. Environmental issues in mining companies are always related to the contamination of water flow, the destruction of agricultural and forest land and the spread of disease. Similar problems also occur frequently in Indonesia, such as the case of illegal sand mining in Lumajang, East Java and the case of PT. Freeport in Pa-

pua, which bring the impact on the environment.

Changes in the level of public, social, and environmental awareness lead to the demand for social and environmental reporting. Finally, many companies voluntarily perform social and environmental disclosure in their annual reports. Unfortunately, there is still no special mandatory guideline for companies in Indonesia to produce environmental information to their stakeholders.

Djoko and Laras (2011) examined the relation-

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ship between IER (Indonesian Environmental Reporting) Index and the characteristics of the company. The results show that there is an influence between the characteristics of the company and IER (Indonesian Environmental Reporting) Index, in which one of the variables is profitability.

Rochman, et al (2012) conducted a study on the factors that influence the level of disclosure of the environmental responsibility in the annual report. The results of the study show that the factors tested have no effect on the level of disclosure of the environmental responsibility in the annual report.

This study aims to review the previous studies on the relationship between financial performance and environmental disclosure by using control variable, because there is still a gap between the studies. This study uses mining sector companies registered on the Indonesian Stock Exchange (IDX) and the Indonesian Environmental Reporting (IER) to measure the quality of environmental disclosures made by the companies. This index was developed by Suhardjanto, Tower, and Brown (2008) based on Global Reporting Index adapted to the conditions in Indonesia.

## **2. THEORETICAL FRAMEWORK AND HYPOTHESIS**

### **Legitimacy Theory**

In legitimacy theory, Ahmad and Sulaiman, in Komang and Ketut (2014), described that the company's business activities are restricted by social contract applied by the relationship among the government, companies and communities. The relationship between the legitimacy theory and the variables of this study is the company's ability to maintain the relationship among the government, companies and communities to fit social norms.

### **Stakeholder Theory**

According to Bernard and Josua (2014), stakeholder theory is a theory that describes the corporate responsibility to the parties concerned. Nurul (2014) described that the increase in environmental problems has attracted the attention of many parties, such as environmental activists, investors, governments, and the public so as to encourage companies to create a solution to overcome the demands of these stakeholders.

### **Signaling Theory**

Diana (2014) stated that signal theory describes the activities that should be undertaken by a company to provide a signal to the users of financial statements, one of the ways is through environmental

disclosure. It is a signal or information to investors about the condition of the company.

### **The Effect of Profitability on Environmental Disclosure**

Ardi and Lana (2007) argued that profitability is one of indicators of financial performance made by the management in managing the company's assets in the form of profit generated. Any gains or profits generated by the company through profitability stem from the ability of the company to utilize its assets, sales, and certain investments.

There is relationship between profitability and environmental disclosure. Fr. Reni (2006), in her study, stated that the better the performance of the profitability, the better the ability of the company to inform the company's financial performance, because management is eager to assure investors about the company's profitability. Thus, profitability may affect the disclosure made by the company, one of which is environmental disclosure.

### **The effect of Tobin's Q on Environmental Disclosure**

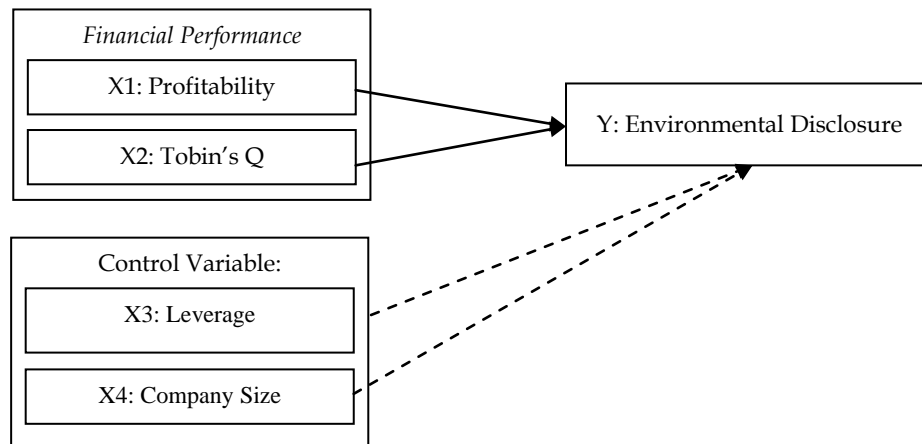
Bambang and Elen (2010) explained that one of the indicators in measuring the variable of company performance from the investment perspective is by using Tobin's Q. The measurement has been tested in various situations of top management. Tobin's Q measurement includes a simple but good measurement so that investors could get interesting information related to the investment

### **The Effect of Company Size and Environmental Disclosure**

Dewi (2015) stated that firm size can be described by the size of the assets owned by the company. Meanwhile, in the research conducted by Cowen et al, in Djoko and Laras (2011), described that larger companies will be under pressure to disclose their activities to legitimize their business because the larger companies carry out more activities, have a greater influence on the community, have the shareholders who may be concerned with the environmental program conducted by the companies, and their annual reports are more efficient in communicating such information to stakeholders. For that reason, larger companies are always encouraged to make environmental information disclosure.

### **The Effect of Leverage on Environmental Disclosure**

Dewi (2015) argued that one of the tools used to measure the extent to which a company finances



**Figure 1**  
**Research Framework**

the company's operations is dependent on creditors. So, Djoko and Laras (2011) described that the use of an enormous debt by the company will allow the company to provide more information to meet the demands of investors and creditors, because creditors will always keep an eye on the funds lent to the company.

The framework of this study is as shown in Figure 1.

### Research Hypothesis

H1: Profitability has an effect on environmental disclosure of mining sector companies listed on IDX 2012-2014.

H2: Tobin's Q has an effect on environmental disclosure of mining sector companies listed on IDX 2012-2014.

## 3. RESEARCH METHOD

### Research Design

This study is quantitative research using secondary data. The hypothesis test is conducted by testing variables and sources of data obtained through the medium. The researchers used data records or facts. Documents were obtained from internal and external (Nur and Bambang 2002: 30).

### Variable Identification

This study uses three types of variables: dependent variable (environmental disclosure), independent variables (profitability and Tobin's Q), and control variables (company size and Leverage).

### Operational Definition and Measurement of Variable

#### Environmental Disclosure

Environmental disclosure is the voluntary disclosure of company's environmental information in Indonesia. The measurement is an environmental

disclosure in this research is conducted using Indonesian Environmental Reporting (IER) index developed by Suhardjanto, Tower, and Brown (2008) (see Table 1).

$$IER's\ index = \frac{\sum(Item\ Disclosure \times IER's\ Index\ Score)}{Total\ Items} \quad (1)$$

#### Profitability

Profitability is an indicator used to measure the management performance in managing the company's assets. Profitability is measured using one of the indicators in the profitability, namely return on assets (ROA). It is done by comparing the company's net income to total assets. According to Michell (2010), ROA can be measured by the following formula:

$$ROE = \frac{Net\ Income}{Total\ Assets} \quad (2)$$

#### Tobin's Q

Tobin's Q is an indicator used to measure the company value which shows the management performance in managing the company's assets from the investment perspective. It describes a condition of investment opportunities of the company or the company's growth potential. Tobin's Q value can be obtained from the sum of the market value of the stock and the market value of debt compared to total assets.

The formulation made by Lindenberg and Ross (1981) in Bambang and Elen (2010) is as follows:

$$Tobin's\ Q = \frac{(Current\ Price \times Total\ Shares) + Total\ Liabilities}{Total\ Asset} \quad (3)$$

#### Company Size

Company size is an indicator used to determine the size of an entity (small or big). In this study, the company size can be seen from the total assets of a company by adding up all current assets and non-current assets held by the entity.

**Table 1**  
**Indonesian Environmental Reporting Table**

No.	IER's Item	IER's Index Weighted
1	Impact of Using Water	3.25
2	Incidents and Fines	3.05
3	Program for Protection	2.27
4	Waste by Type	1.99
5	Impacts of Activities	1.91
6	Materials by Type	1.84
7	Environmental Expense	1.63
8	Discharges Water	1.58
9	Other Air Emissions	1.54
10	Withdrawals of Ground Water	1.44
11	Land Information	1.43
12	Volume of Water Use	1.41
13	Energy Consumption	1.29
14	Performance of Supplier	1.25
15	Impact of Discharges Water	1.05
16	Impacts of Transportation	1.05
17	Impacts of Products	0.95
18	Land for Extraction	0.84
19	Spills of Chemicals	0.76
20	Indirect Energy	0.67
21	Renewable Initiative	0.59
22	Habitat Changes	0.42
23	Other Indirect Energy	0.41
24	Recycling Water	0.37
25	Hazardous Waste	0.36
26	Impermeable Surface	0.30
27	Affected Red List Species	0.30
28	Impact of Activities on Protected Areas	0.28
29	Wastes of Material	0.20
30	Direct Energy	0.19
31	Greenhouse Gas Emissions (GGEs)	0.14
32	Recycling Material	0.10
33	Emissions of Ozone Depleting Substances	0.08
34	Other Indirect GGEs	0.02
35	Operations in Protected Areas	0.02
	Mean	1.00

Source: Suhardjanto, Tower and Brown (2008).

According to Rochman, et al (2012), the company size can be measured by the following formula:

$$\ln \text{Company} = \ln(\text{Total Assets}). \quad (4)$$

### Leverage

Leverage is a ratio used to measure the extent to which the company's assets are financed by the company's liabilities. The measurement in this study can be seen in total liabilities compared to total assets.

A research conducted by Dhaliwal et al (1991) in Ihsanul (2014), leverage can be measured using the following formula:

$$\text{Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}. \quad (5)$$

### Population and Sampling Techniques

The population in this study is all mining sector companies listed on the Indonesia Stock Exchange (IDX) 2012-2014. The samples used in this study are selected using purposive sampling method with the aim to show the best results (see Table 2 and 3). There are several criteria that must be met in order for the samples used could be accounted for:

1. The company published its annual report on the Indonesia Stock Exchange (IDX) for three consecutive years during 2012-2014.

**Table 2**  
**Sampling of Mining Sector Companies without Control Variable**

Sampling Criteria	Number	Accumulation
The samples in this study are mining sector companies listed on IDX period 2012 – 2014.	40 X 3 years	120
The companies do not publish the annual reports for three consecutive years.	(7)	(21)
The companies do not provide environmental disclosure for three consecutive years.	(1)	(3)
Data outlier	-	(43)
Total	-	53

Source: Data processed.

**Table 3**  
**Sampling of Mining Sector Companies with Control Variable**

Sampling Criteria	Number	Accumulation
The samples in this study are mining sector companies listed on IDX period 2012 – 2014.	40 X 3 years	120
The companies do not publish the annual reports for three consecutive years.	(7)	(21)
The companies do not provide environmental disclosure for three consecutive years.	(1)	(3)
Data outlier	-	-
Total	-	96

Source: Data processed.

- The company must provide environmental disclosure for three consecutive years, during 2012-2014.

#### 4. DATA ANALYSIS AND DISCUSSION

##### Descriptive Analysis

Descriptive statistics describes the data seen from the mean, standard deviation, variance, maximum and minimum values of the samples. The following descriptive analysis is done by looking at the values of mean, standard deviation, maximum, and minimum from Table 4.

##### Environmental Disclosure

Environmental disclosure is the information possessed by each company by disclosing the environmental conditions in the company's annual report. Table 4 shows that the samples in this study are 96 companies. The minimum value is 0.000, the maximum value is 0.991, the standard deviation value is 0.235248, and the mean value is 0.28061. The comparison between the standard deviation value and the mean value shows that the standard deviation value is below the mean value, which means that the level of data variation of the environmental disclosure is small or homogeneous.

The company with the highest (maximum) level of disclosure is PT. Timah Tbk (TINS). In 2013, based on the environmental information in the company's annual report, the company did a very complete disclosure of information in accordance

with the criteria specified by IER and easy to read, except for the disclosure of impermeable surfaces in the company's operations. Meanwhile, the company with the lowest (minimum) level of disclosure (or did not provide the environmental disclosure) is PT. Perdana Karya Perkasa Tbk. (PKPK) in 2012 and 2013. Although the company did not make the environmental disclosure, the company still did the environmental performance as usual. The company did not try to disclose its environmental condition and only provides information on the state of partnership related to its mining operations only (Figure 1).

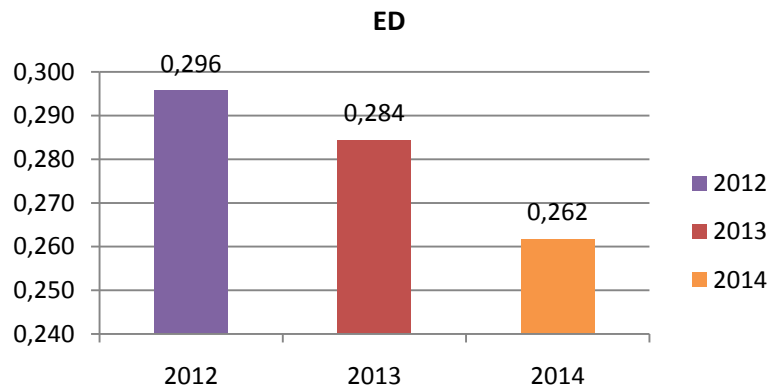
It is apparent that the average percentage of environmental disclosure continued to decline from 2012 to 2014. The percentage disclosure undertaken in 2012 was 29.6%, and decreased in 2013 by 28.4% and continued to decline in 2014 by 26.2%. The decline in the company's environmental disclosure trend was caused by the sluggish economic conditions of the mining sector companies from 2012 to 2014. Even in such conditions, few companies still tried to perform high disclosure during the study period.

Figure 2 illustrates the number of disclosures by the companies during the study period in each item. The average total disclosure by the companies in this study is only twenty-five percent. This indicates that the level of environmental disclosure in the mining sector companies is small. The figure shows that the least disclosed item is item number

**Table 4**  
**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ED	96	.000	.991	.28061	.235248
ROA	96	-.270	.577	.03444	.113181
TOBIN'S Q	96	.6207	8.7328	1.636341	1.3778994
SIZE	96	148540732335,0	85413499931399,0	11727385992480,227	19272504204241,9530
DEBT	96	.0003	1.1128	.454844	.2539791
Valid N (listwise)	96				

Source: Data processed.



**Figure 2**  
**Diagram of the Mean Value of Environmental Disclosure**

30, which discusses the impermeable surface.

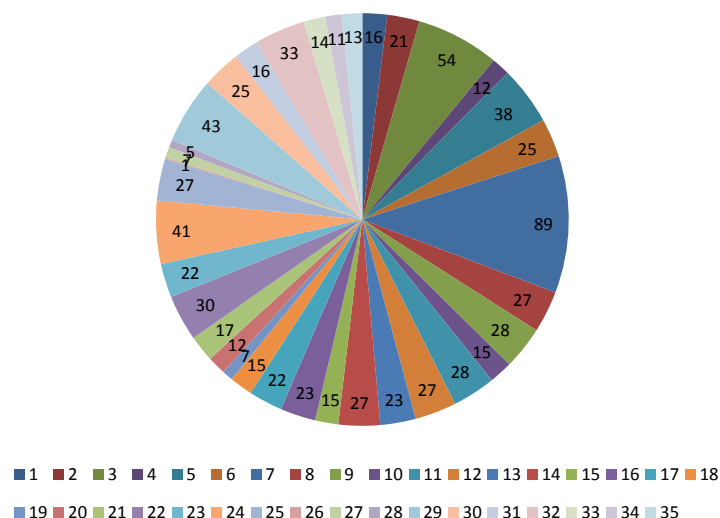
The lack of disclosure on this item is caused by the need for greater cost to disclose the item. Although the level of environmental disclosure in the mining company is small, 89 companies of a total sample of 96 companies always try to disclose the environmental burden borne by the companies as a result of mining activities of the company. It means that the level of disclosure made by mining companies is quite small, but the companies still try to pay attention to the surrounding communities affected by the mining activities.

### Profitability

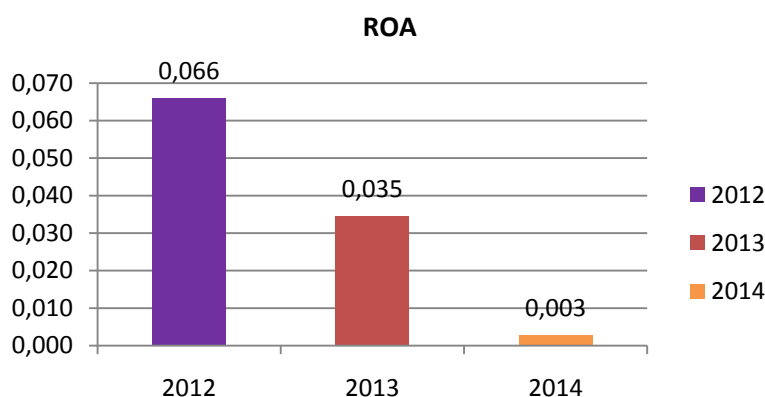
Profitability is one of the elements of financial performance that can be measured by several techniques of measurement, such as Return on Assets (ROA). This ratio informs about the amount of net profit generated by the company as measured by the value of the assets of the company. Based on Table 4, the samples used in this study are 96 companies, with the minimum value of -0.270, maximum value of 0.577, standard deviation value of 0.113181, and the mean value of 0.03444. The comparison between the standard deviation value and the mean value shows the standard deviation value which is above the mean value. This means that the level of data variation of return on assets (ROA) is large or heterogeneous.

The company that has the highest (maximum) ROA ratio is PT. Garda Tujuh Buana Tbk. (GTBO) in 2012, with a profit of IDR 941,905,663,244 and total assets of IDR 1,632,430,639,456. The comparison between profit and total assets which is not too far results in greater return than other companies. The high increase in profit compared to 2011 was caused by a strong increase in production. Higher selling price and good production contracts managed to create a very good financial performance. Meanwhile, the company that has the lowest (minimum) ROA is PT. Chakras Mineral Tbk. (CKRA) in 2014, with a profit of IDR -279,465,000,000 and total assets of IDR 1.036.651.000.000. The negative profit obtained by the company that year was caused by the fall of raw material price and the ban on exports of raw mining materials that affect the company's revenue and profitability.

Positive value of Return on Assets indicates that with the total assets used, the company is able to provide profit for the company. So, if a company has a high return on assets, the company has a great opportunity in promoting the growth of the company's assets. Negative value of Return on Assets indicates that with the total assets used, the company is not able to provide profit for the company (loss). The total assets used by the company do not provide profit, thus making the company suffer losses. In addition to the difficult economic

**Environmental Disclosure**

**Figure 3**  
Diagram of the Disclosure of Each Item



**Figure 4**  
Diagram of the Mean Value of Return on Asset

condition, the low ROA ratio is also caused by the expensive raw material price and the ban on exports of raw mining materials, thereby affecting the profitability of the company.

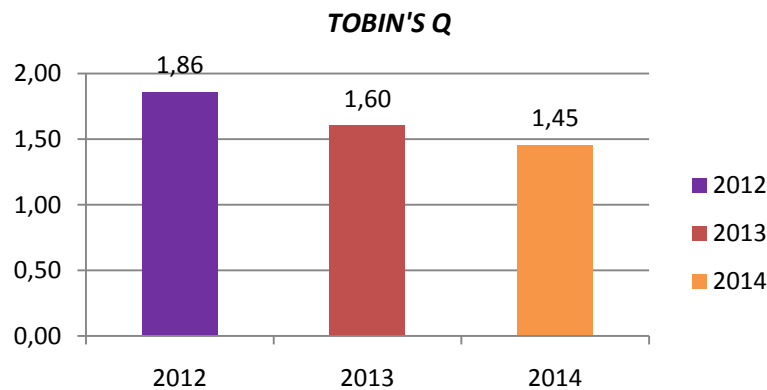
Figure 3 describes the average ROA value for three years. It can be seen that there is a sharp decline. Asset turnover rate in 2012 was 6.6%, or down to 0.3% in just over three periods in 2014. The low ROA in 2012 was not caused by the inability of the company in managing its resources, but by the buildup of coal supply and was not balanced by the increase in sales, thus resulting in the decrease in demand for coal on the international market. This condition continued in 2013, causing companies to suffer losses.

This condition above was worsened by the government regulation related to the ban on the

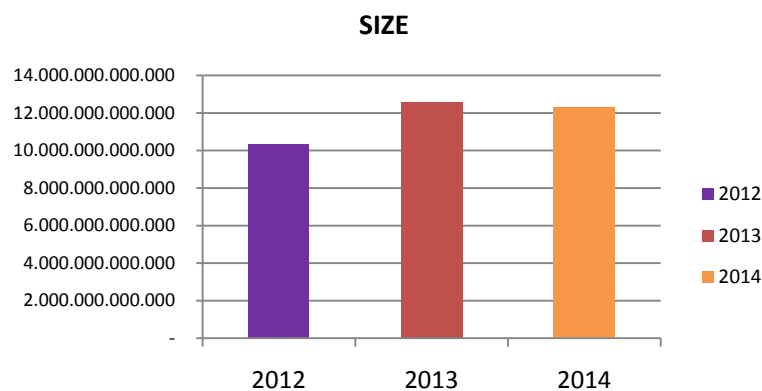
export of raw materials. This caused a sharp decline in return on assets until the end of 2014. In that situation, the economic condition of mining sector companies became sluggish, causing the company's assets turnover to weaken. It has a relationship with the environmental disclosure. Performing environmental disclosure will require additional costs. Therefore, the company chooses to focus on operational performance to generate better profit.

**Tobin's Q**

Tobin's Q is one indicator of business performance measurement, especially about the value of the company, which shows the management performance in managing the assets of the company from the investment perspective. Tobin's Q value describes a condition of investment opportunities of



**Figure 5**  
Diagram of the Mean Value of Tobin's Q



**Figure 6**  
Diagram of the Mean Value of Company Size

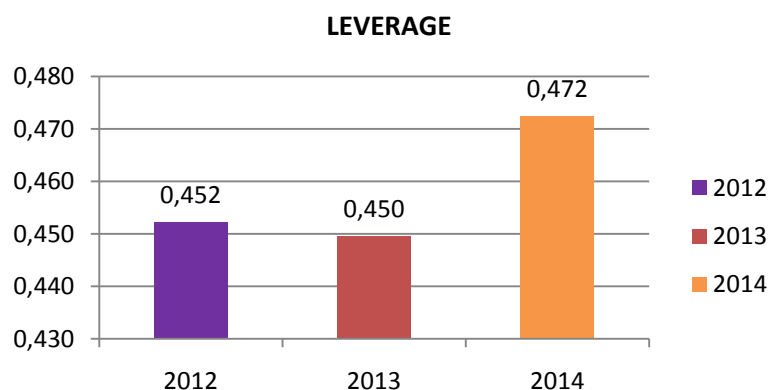
the company or the company's growth potential. From Table 4, it can be seen that the samples used in this study are 96 companies, with the minimum value of 0.6207, the maximum value of 8.7328, standard deviation value of 1.3778994, and the mean value of 1.636341. The comparison between the standard deviation value and the mean value shows that the standard deviation value is below the mean value, which means that the level of data variation of Tobin's Q is small or homogeneous.

The company with the highest (maximum) Tobin's Q value is PT. Golden Eagle Energy Tbk. (SMMT) in 2013. This value was obtained because in 2013 the company had the capability of high market capitalization, mainly on the third quarter. This improvement can be demonstrated by looking at the share price and the number of shares outstanding in the company which is increasing very rapidly. One of the company's performances which are considered successful is the project funded by Bank Permata, called TRI mining project. The company managed to develop the TRI mining concession progressively in the readiness of infrastructure, ports and other facilities needed. So, until the

end of 2013, TRI had successfully performed its mining test about twenty thousand tons of coal, while one million tons of coal had been exposed and was ready to be mined. Meanwhile, the company with the lowest (minimum) Tobin's Q value is PT. Darma Henwa Tbk. (DEWA) in 2014. The ability of the market capitalization that continued to decline during the last 4 years was caused by the falling of coal prices. Many small and medium-scale producers halted production because the coal price in the market could lead to business losses if production was continued. This brings impact on the companies that provide mining contractor service where there was a reduction in production volume.

Figure 4 describes the average Tobin's Q occurring during the study period 2012-2014. Although the decline occurring is not too high, the value of Tobin's Q gradually decreases every year. Tobin's Q is an assessment conducted to determine the value of the company. The ups and downs of the Tobin's Q value are natural things in the valuation of a company. Some of the causes of the decline in the value of Tobin's Q are the failure of the small and





**Figure 7**  
**Diagram of the Mean Value of Leverage**

**Table 5**  
**Results of Normality Test without Control Variable**

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		53
Normal Parameters <sup>a,b</sup>	Mean	.0E-7
	Std. Deviation	.07015911
Most Extreme Differences	Absolute	.113
	Positive	.113
	Negative	-.067
Kolmogorov-Smirnov Z		.820
Asymp. Sig. (2-tailed)		.512

Source: Data processed.

medium producers to operate so that several large companies engaged in the rental services experience losses. Although there is a decline, the Tobin's Q value remains above 1. It can be interpreted that the company has a high value in the market, although the company is still in less good condition.

### Company Size

Company size is one of the indicators used to determine whether the entity is small or big. The size of an entity in general can be seen from the value of total assets. Table 4 shows that this study uses 96 samples. The minimum value is IDR 148,540,732,335, the maximum value is IDR 85,413,499,931,399, the standard deviation value is IDR 19,272,504,204,241.9, and the mean value is 11,727,385,992,480.2. The comparison between the standard deviation value and the mean value shows the standard deviation value which is above the mean value, which means that the level of data variation of the company size is large or heterogeneous.

The company size can be seen from some of the company's reporting, one of which is by seeing

the company's assets. In this study, the company that has a size large is PT. Bumi Resources Tbk. (BUMI) in 2013. The increase in the value of assets of PT. Bumi Resources Tbk. was as the result of the acquisition of several assets of prospects in Ogan Ogan Ulu causing sizeable assets change, although there were some decreases in the accounts in current assets related to investment registration transfer. Meanwhile, PT. Mitra Investindo Tbk. (MITI) had the smallest total assets in this study in 2012. Although in this study the company had lowest total assets, the total assets increased from the previous year. This increase comes from the addition of production machines and the remaining operating results that still have not been used by the company.

Figure 5 describes the average company's assets each year for three years. The company's assets can describe the company size seen from the value of its total assets. The company experienced an increase in average assets from 2012 to 2013 because there was sizeable inventory buildup caused by the absence of sales due to sluggish demand in the international market, especially in China. Meanwhile, from 2013 to 2014, the average assets of the compa

**Table 6**  
**Results of Normality Test with Control Variable**

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		96
Normal Parameters <sup>a,b</sup>	Mean	0E-7
	Std. Deviation	.19764577
	Absolute	.112
Most Extreme Differences	Positive	.110
	Negative	-.112
Kolmogorov-Smirnov Z		1.095
Asymp. Sig. (2-tailed)		.182

Source: Data processed.

**Table 7**  
**Results of F Statistic Test without Control Variable**

ANOVA<sup>a</sup>

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.089	2	.044	8.651	.001b
	Residual	.256	50	.005		
	Total	.345	52			

Source: Data processed.

**Table 8**  
**Results of F Statistics Test with Control Variable**

ANOVA<sup>a</sup>

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.546	4	.387	9.480	.000b
	Residual	3.711	91	.041		
	Total	5.257	95			

Source: Data processed.

ny decreased slightly because some companies released their assets to pay off their debts. Besides, within a period of three years occurred asset revaluation so that few companies experienced an increase in assets with a very large value but most companies suffered impairment to small decrease in value. Therefore, the average company assets in 2014 slightly decreased.

### Leverage

Leverage is a ratio used to measure how much the company's assets that are financed using the company's liabilities. From these ratios, it can be seen that the company's ability to finance its assets using its liabilities. Table 4 shows that the samples used in this study were as many as 96 companies. The minimum value is 0.0074, the maximum value is 1.1128, the standard deviation value is 0.2500657, and the mean value is 0.458098. The comparison between the standard deviation value and the average value shows that the standard deviation value is below the mean value, which means that the level of data variation of the leverage is relatively

small or homogeneous.

The company with the highest (maximum) leverage ratio was PT. Bumi Resources Tbk. (BUMI) in 2014 which has a smaller value of assets than its total liabilities. The high amount of liability occurred because the company was still in the process of debt settlement and restructuring through a formal moratorium in Singapore and the United States to reduce its debt to a healthy and fair level as soon as possible. Meanwhile, the company with the lowest (minimum) leverage ratio is Citra Kebun Raya Agri Tbk. (CKRA) in 2013. The significant difference occurred between total liabilities and total assets of this company caused by the decline in total liabilities of the company especially on its long-term debt to related parties. The decrease in total liabilities was also followed by a decline in the company's assets, especially on noncurrent assets.

Figure 6 shows the average leverage of mining sector companies listed on IDX for three years. The average level of leverage decreased slightly from 2012-2013. The decrease was caused by the high growth of the company's assets in 2013, causing

**Table 9**  
**Results of Determination Coefficient Test without Control Variables**

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.507 <sup>a</sup>	.257	.227	.071549

Source: Data processed.

**Table 10**  
**Results of Determination Coefficient with Control Variables**

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542 <sup>a</sup>	.294	.263	.201943

Source: Data processed.

**Table 11**  
**Results of T Test without Control Variable**

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.147	.015		10.049	.000
ROA	.376	.094	.489	4.003	.000
TOBIN'S Q	-.009	.006	-.174	-1.425	.160

Source: Data processed.

**Table 12**  
**Results of T test with Control Variable**

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.199	.057		3.486	.001
ROA	.193	.192	.093	1.007	.317
TOBIN'S Q	-.010	.016	-.056	-.594	.554
SIZE	6.305E-015	.000	.517	5.313	.000
DEBT	.036	.094	.039	.385	.701

Source: Data processed.

little leverage level. Meanwhile, in 2013-2014 there was a significant increase in leverage, or 2.2%. This increase was caused by the decrease in the value of company's assets, although not too large. Another factor that causes the growth of levels of leverage is because the company tends to submit its funding more to the lender than the investor.

### Classical Assumption Test

Normality test is used to test whether the data in the regression model are normally distributed. The normality test used *ij* this research is Kolmogorov Smirnov table. If the significance (sig.) value is above 0.05, this indicates that the data tested are normally distributed. Table 5 and 6 are the test results of SPSS 20. From the normality test analysis results without the use of control variables, it can be seen that the data used are as many as 53 samples (after outlier). The value of Kolmogorov-

Smirnov is 0.820 and the significance value of Asymp. Sig. (2-tailed) is 0.512. Meanwhile, from the normality test results with the use of control variable, it can be seen that the data used are 96 samples (after outliers). The value of Kolmogorov-Smirnov is 1.095 and the significance value of Asymp. Sig. (2-tailed) is 0.182. Based on the value of Asymp. Sig. (2-tailed), both test results have the values above 0.05. This proves that  $H_0$  is accepted because the significance value is greater than 0.05, which means that the data are normally distributed.

### Hypothesis Test

#### F Statistic Test

F statistic test is used to show whether the regression model fits or not. The results of F statistic test are as in Table 7 and Table 8.

Based on Table 7 and 8, F value is 8.651 and 9.480, with a significance value of 0.001 and 0.000.

**Table 13**  
**Summary of the Results of Hypothesis Test without Control Variable**

Hypothesis	Description	Test Result
H1	Profitability has an effect of environmental disclosure	H0 is rejected
H2	Tobin's Q has an effect on environmental disclosure	H0 is accepted

Source: Data processed.

**Table 14**  
**Summary of the Results of Hypothesis Test with Control Variable**

Hypothesis	Description	Test Result
H1	Profitability has an effect on environmental disclosure	H0 is accepted
H2	Tobin's Q has an effect on environmental disclosure	H0 is accepted

Source: Data processed.

These values are less than 0.05. This shows that the model regression fits.

#### **Determination Coefficient (R<sup>2</sup>) Test**

Determination coefficient test is essentially meant to find out influence of independent variable on dependent variable. The value of determination coefficient is between zero and one. Here are the results of determination coefficient test:

From the Table 9, it can be seen that the value of R or the correlation coefficient for the correlation of the variables used is 0.507 or 50.7%. Meanwhile, the value of Adjusted R Square is used to look at the ability of independent variables in explaining the dependent variable with a value of 0.257, or 25.7%, which means that ROA and Tobin's Q are able to influence the Environmental Disclosure by 25.7%, while the remaining 74.3% is explained by other variables. Based on Table 10, the value of R or the correlation coefficient for the correlation of the variables used is 0.542 or 54.2%. Meanwhile, the value of Adjusted R Square is used to look at the ability of the independent variables in explaining the dependent variable with a value of 0.294, or 29.4%, which means that ROA, Tobin's Q, Company Size, and debt are able to influence the Environmental Disclosure by 29.4%, while the remaining 70.6 % is explained by other variables.

#### **T test**

Basically *t* statistic test is used to show the effect of independent variables (Return on Assets, Tobin's Q) partially on dependent variable (Environmental Disclosure).

#### **The First Hypothesis Test**

The first hypothesis is done to test the effect of Return on Assets (ROA) on Environmental Disclosure. Based on Table 11, the *t* value is 4.003, with a significance level of 0.000, or less than 0.05. This means that ROA has an effect on Environmental Disclosure of mining sector companies listed on

IDX 2012-2014, which means that H<sub>1</sub> is accepted.

#### **The Second Hypothesis Test**

The second hypothesis is done to test the effect of Tobin's Q on Environmental Disclosure. Based on Table 10, the *t* value is -1.425, with a significance level of 0.160, or greater than 0.05. This means that Tobin's Q has no effect on Environmental Disclosure of mining sector companies listed on IDX 2012-2014, which means that H<sub>0</sub> is accepted.

#### **The First Hypothesis Test**

The first hypothesis is done to test the effect of ROA on Environmental Disclosure. Based on Table 12, the *t*-value is 1.007, with a significance level of 0.317, or greater than 0.05. This means that ROA has no effect on Environmental Disclosure of mining sector companies listed on IDX t2012-2014, which means that H<sub>0</sub> is accepted (see the summary in Table 13 and 14).

#### **The Second Hypothesis Test**

The second hypothesis is done to test the effect of Tobin's Q on Environmental Disclosure. Based on Table 12, the *t*-value is -0.594, with a significance level of 0.554, or greater than 0.05. This means that Tobin's Q has no effect on Environmental Disclosure of mining companies listed on IDX 2012-2014, which means that H<sub>0</sub> is accepted.

This study aims to determine whether profitability and Tobin's Q have an effect on environmental disclosure. Before explaining the results of the above tests, the researchers would like to emphasize that this study uses control variables that serve to control the relationship between the independent variables and the dependent variable. The researchers would like to examine the effect that occurs in each variable when there is and there is no control variable so that the researchers can determine the function of the control variable. Despite the control variable, this study only focuses on the

effect that occurs in the independent variable.

### **The Effect of Profitability ( $X_1$ ) on Environmental Disclosure ( $Y$ )**

Based on the analysis result, the variable of profitability which is proxied by Return on Assets has an effect on environmental disclosure when testing is done without using the variable control. Meanwhile, different result is demonstrated when the analysis is conducted using control variable, where the variable of profitability has no effect on environmental disclosure. In this study, there is an effect of ROA because the better the rate of turnover of net profit on the company's assets, the better the environmental disclosure made by each company.

Similarly, the lower the company's ROA, the lower the level of environmental disclosure made by the company. The size of the percentage of growth obtained in the calculation of ROA would be consistent with a growing percentage of the disclosure. This result is consistent with the result of the test performed. Meanwhile, in the subsequent analysis, ROA has no effect. It is because when ROA is grouped in large and small-scale company with a high and low levels of leverage has different environmental disclosure, causing companies with high ROA ratio in large or small-scale companies with a high and low level of leverage have no effect on the size of the level of disclosure done, and neither do with the companies that have small ROA ratio.

This will have an impact on the company's performance in managing environmental disclosure that is considered very low by investors. Investors believe that the faster the rate of turnover of assets, the faster the profits obtained the company and this makes the company better in keeping the environment around it, thus providing the information to the stakeholders of the company. However, this study shows the opposite because of the small turnover rate of assets due to the difficult economic conditions with the fall of the product prices in mining sector as a result of sluggish market, excessive inventory and the emergence of various policies made by the government which are considered burdensome by some companies. This causes the profitability to have no effect on the level of environmental disclosure. Although the level of disclosure that is made in this study is relatively low, almost all companies in the study always prioritize the communities affected by mining activities. This is consistent with the theory of legitimacy which states that the company's business activities are restricted social contract that is implemented by the

relationship among the government, enterprises and society, which means that although the company is restricted by the difficult economic conditions and the regulations that penalize the performance of the company, the company should still consider another factor that relates to the public.

The results of this study are consistent with the results of the research conducted by Rochman, et al (2012) that there is no effect of ROA variable on environmental disclosure. High or low ROA owned by the company does not affect the level of environmental responsibility disclosure that needs to be conducted and reported by a company.

### **The Effect of Tobin's Q ( $X_2$ ) on Environmental Disclosure ( $Y$ )**

Based on the analysis of the variable of Tobin's Q without and with control variable, on the hypothesis test, it can be explained that the variable of Tobin's Q has no effect on environmental disclosure. This indicates that the high or low value of Tobin's Q, controlled or not controlled by other variables, shows no effect on the variable of environmental disclosure. Tobin's Q has no effect on the level of environmental disclosure because of the sluggish economic conditions in mining sector companies. So, the companies with high value of Tobin's Q do not try to disclose the environmental condition because the reporting is still in voluntary. In such condition, the company tends to focus more on its operational activities, such as the efficiency program to increase production capacity and to control costs.

This will have an impact on investors' assessment of the ability of the company that has a high investment value in the market, so it can be taken into consideration for the investors to invest. Investors expect the companies with high investment value in the market. The company will pay attention to the environment and will perform the information disclosure for the shareholders. But this study has the opposite result to the theory described. It does not mean that the no effect of Tobin's Q on environmental disclosure may cause the company to pay no attention to the needs of stakeholders. But, it means that the company does not disclose the environmental condition because the disclosure is still in voluntary and requires additional costs for implementation. On the other hand, the company continues to strive to meet the needs of stakeholders by providing more information and better performance than the previous year.

The results are consistent with the results of the research conducted by Chen, Cheng, Gong and

Tan (2014), in which there is the company value which is peroxided by Tobin's q has no effect on voluntary disclosure by reliance on *guanxi* undertaken by the company, one of which is environmental disclosure. Meanwhile, the opposite result is obtained when the company is not overly dependent on *guanxi*. Although this study does not use the variable of *guanxi*, as a moderating variable, this result can be said to be in line for the variable can only be done with better result in China.

## 5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study is conducted to examine the effect of profitability ratios, which are projected by ROA and Tobin's Q ratio on environmental disclosure of the mining sector companies. The study uses secondary variables obtained from the Indonesian Stock Exchange (IDX) or [www.idx.co.id](http://www.idx.co.id). The research samples are obtained using purposive sampling and disposal of outlier. The number of samples is 96 mining sector companies listed on the Indonesian Stock Exchange (IDX). The tests used in this research are descriptive analysis test, normality test, and multiple linear regression analysis. Based on the research hypothesis testing and discussion, it can be concluded that:

1. The variable of Return on Assets (ROA) partially has no effect on the Environmental Disclosure of the mining sector companies
2. The variable of Tobin's Q partially has no effect on Environmental Disclosure of mining sector companies.

The results of this research still have limitations, such as, there are still some data outliers in this study, especially when testing without the control variables so that the results achieved are less maximum or less than expected by the researchers. The measurement carried out on the dependent variable, or Environmental Disclosure, should be repeated with the perception of each researcher because the Disclosure Environmental assessment is subjective. Thus, the value of the Environmental Disclosure of the same companies will have a different value of disclosure between one research and another.

Based on the conclusions and limitations described above, it is suggested that researchers, for further research, specify the criteria on the assumption that the data do not undergo the process of outlier too much so as to obtain maximum results as expected by the researchers. In addition, the measurement of the Environmental Disclosure must be done using the perception of individuals

because the value of the Environmental Disclosure is different from measuring other variables. So, further researchers are expected to do the best possible measurements.

The use of control variables needs more attention, moreover when using more than one control variable. The researchers should test each of the control variables. The implications of this study are expected to provide motivation for the company to improve financial performance and publicize environmental disclosure that could be good news, not only for shareholders, but also for stakeholders.

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