

# The Influence of Environmental Costs and Company Size on The Level of Corporate Social Responsibility (CSR)

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## ABSTRACT

This study aims to examine the effect of environmental costs and company size on the level of Corporate Social Responsibility (CSR). Environmental costs are measured using cost divided by profit, company size using the natural logarithm (Ln) of total assets, and Corporate Social Responsibility (CSR) is measured using the number of items disclosed by the company divided by the number of items that should be disclosed by the company. This type of research is quantitative. The population in this study are all mining companies listed on the Indonesia Stock Exchange (IDX) with an observation period starting from 2019 to 2021. The sampling technique used is the purposive sampling method, in order to obtain a total of 22 mining companies that have met the specified criteria. has been established. The data source used is secondary data in the form of annual reports obtained from [www.idx.co.id](http://www.idx.co.id). In this study, data analysis techniques used the SPSS (Statistical Package for Social Science) 26 software application. The results showed that environmental costs had a significant effect on the level of Corporate Social Responsibility (CSR). And company size has a significant effect on the level of Corporate Social Responsibility (CSR).

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## 1. INTRODUCTION

In the current era of globalization, the issue of natural destruction and global warming is a serious concern. The earth that is no longer healthy shows various symptoms, such as abnormal and regular weather conditions, natural disasters in various places. This is one of the impacts of environmental damage. Companies are considered as one of the causes of environmental damage, because companies tend to seek maximum profits without paying attention to their impact on the environment.

The mining industry is an industry that is often accused of having the most companies with poor environmental performance. This is because there are many cases of environmental damage caused by the mining industry. It must be admitted that the mining industry is a dilemma for the community. Because, on the one hand, the mining industry has the potential to cause a lot of environmental damage. However, on the other hand, development requires a large source of energy obtained from the mining industry and the mining industry is also a large source of income for the country (Miranti, 2008).

Environmental costs are costs that occur due to poor quality or poor environmental quality that may occur. Environmental pollution is the impact of the company's lack of attention to environmental management arising from company activities. Over time, starting from the

government, company shareholders and society are increasingly aware of the social and environmental impacts caused by companies in carrying out their operations to achieve maximum profit (Iriyanto & Nugroho, 2014).

Company size is considered capable of influencing company value. The larger the size or scale of the company, the easier it will be for the company to obtain funding sources, both internal and external. Companies with a large scale have many advantages, including having the ease of obtaining capital markets and bargaining in contacts, and there is a possibility that the influence of scale makes the company have more profits (Strajhar et al., 2016). This is in accordance with research conducted by (Wulandari & Wiksuana, 2017) which states that company size has a positive and significant effect on firm value.

Regulations related to CSR are contained in Law No. 25 of 2007 which regulates investment and Law No. 40 of 2007 concerning Limited Liability Companies. CSR is an obligation that must be implemented because the pressure of the corporate environment requires companies to implement strategies to maximize corporate value. Nowadays, many companies are aware of the concern for the environment and social community. This research was conducted in mining companies listed on the Indonesia Stock Exchange, researchers chose the mining sector because the business activities of mining companies are in direct contact with the utilization of natural resources which have a direct impact on the environment.

There are several differences of opinion where according to the results of research by Wahyu Setiawan, Leonardo Budi H, Ari Pranaditya (2018) which states that environmental costs have no effect on CSR. According to research by Muhammad Rivandi, Ridho Juanda Putra (2021) states that company size has a negative effect on CSR disclosure. Meanwhile, in another study by Putu Ayu Cahya Dewi and Ida Bagus Panji Sedana (2019) stated that company size has a positive effect on CSR disclosure.

Based on the background that has been described and the phenomena that occur in previous studies, it is the basis for the authors in conducting this research. conduct research with the title "The Effect of Environmental Costs and Company Size on the Level of Corporate Social Responsibility (CSR) (Survey of Mining Companies Listed on the IDX for the 2019-2021 Period)".

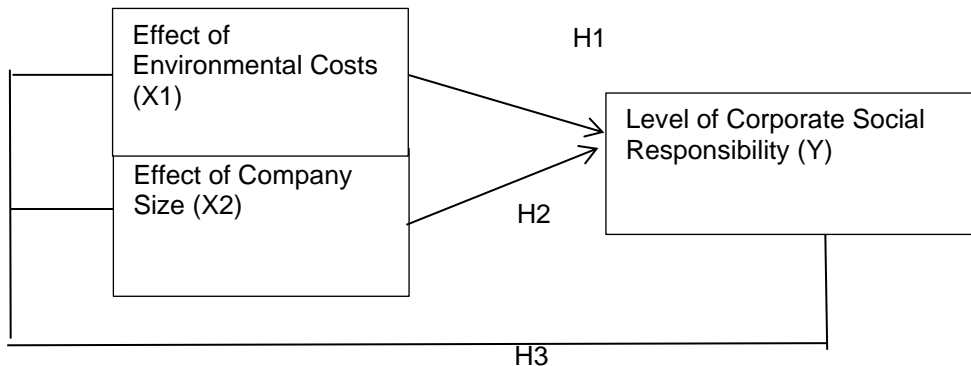
## 2. RESEARCH METHOD

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics set by researchers to study and then draw conclusions (Sugiyono, 2019). The population in this study are Mining Companies listed on the IDX in 2019-2021. The sample is part of the number and characteristics of the population. (Sugiyono, 2019). The sample used in this study is a part or representative that has been determined. The sampling technique used purposive sampling technique. From a population of 64 mining companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period, a sample of 22 mining companies was obtained which had complete financial reports and data in accordance with the sample criteria.

In this study, the data analysis technique used was quantitative in the form of numbers and the method used was statistical methods. Data processing in the calculation of researchers using the program (SPSS) Statistical Package For Social Science 26. Spss is a computer program used for statistical analysis.

### Framework of Thought

The framework in this study is described as follows:



**Hipotesis**

Hypotheses are temporary answers to research problems whose truth must be tested empirically. The hypothesis states what relationship we are looking for or want to study. Hypotheses are temporary descriptions of the relationship between complex phenomena. (Setyawan, 2014). The hypothesis in this study is as follows:

- H1: Environmental Costs Affect Corporate Social Responsibility.
- H2: Company Size Affects Corporate Social Responsibility (CSR)
- H3: Environmental Costs and Company Size Affect the Level of Corporate Social responsibility (CSR)

**3. RESULTS AND DISCUSSIONS**

**Table 1.** Descriptive Statistics

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
X1-Environmental Costs	66	.01	.10	.0388	.02417
X2-Company Size	66	.02	.30	.0312	.03339
Y-Corporate Social Responsibility	66	1.05	3.30	1.5025	.37953
Valid N (listwise)	66				

Source: SPSS secondary data processing, 2022

Table 1, shows that environmental costs in 66 samples, the highest value is 0.10, the lowest value is 0.01, the average value is 0.0388, and the standard deviation is 0.02417. Company size in 66 samples, the highest value is 0.30, the lowest value is 0.02, the average value is 0.0312, and the standard deviation is 0.3339. Corporate social responsibility in 66 samples, the highest value is 3.30, the lowest value is 1.05, the average value is 1.5025, and the standard deviation is 0.37953..

**Classical Assumption Test**

**Table 2.** Normality Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		66
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.02376895
Most Extreme Differences	Absolute	.122
	Positive	.122
	Negative	-.110
Test Statistic		.122
Asymp. Sig. (2-tailed)		.178 <sup>c</sup>
a. Test distribution is Normal.		
b. Calculated from data.		

c. Lilliefors Significance Correction.

The results of the normality test with the Kolmogorov-Smirnov statistical test (1-sample K-S), show that the data is normally distributed because the asymp. Sig (2-tailed) 0.178 which is greater than the significance value of 0.05 and also indicates that the data distribution in this sample is normal.

### Multicolonierity Test

**Table 3.** Multicolonierity Test

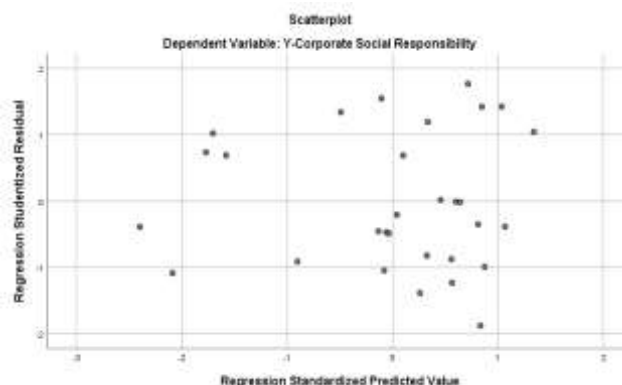
		Coefficients <sup>a</sup>					Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients				
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.591	.095		1.666	.000		
	X1-Biaya Lingkungan	-.205	.038	-.204	-.654	.001	.992	1.008
	X2-Ukuran Perusahaan	.155	.043	.102	.824	.003	.992	1.008

a. Dependent Variable: Y-Corporate Social Responsibility

**Source: SPSS secondary data processing, 2022**

For each independent variable more than 0.01 and the VIF (variance inflation factor) value for each independent variable is less than 10. So it can be concluded that there is no multicolonierity between the independent variables in the regression model in this study.

### Heteroscedasticity Test



**Figure 2.** Scatterplot graph

From the Scatterplot graph above, it can be seen that the points spread randomly and spread both above and below the number 0 on the Y axis. It can be concluded that there is no heteroscedasticity in the regression model.

### Autocorrelation Test

**Table 4.** Autocorrelation Test

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.220 <sup>a</sup>	.048	.518	.37609	1.773
a. Predictors: (Constant), X2-Company Size, X1-Environmental Costs					
b. Dependent Variable: Y-Corporate Social Responsibility					

**Source: SPSS secondary data processing, 2022**

In the table of the dependent variable corporate social responsibility, the almant method obtained a Durbin-Watson value of 1,773. The Durbin-Watson value is between -2 to +2 so it

can be concluded that there is no problem with autocorrelation in the regression model equation of this study so it is feasible to use.

### Multiple Linear Regression Analysis

**Table 5.** Multiple Linear Regression Analysis

Coefficients <sup>a</sup>								
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	.591	.095		1.666	.000		
	X1-Biaya Lingkungan	-.205	.038	-.204	-.654	.001	.992	1.008
	X2-Ukuran Perusahaan	.155	.043	.102	.824	.003	.992	1.008

a. Dependent Variable: Y-Corporate Social Responsibility

**Source: SPSS secondary data processing, 2022**

Multiple regression equations can be done by interpreting the numbers in the Std Unstandardized Coefficients. Based on calculations carried out using SPSS, the multiple linear regression equation is obtained

$$Y = (0,591) - 0,205X1 + 0,155X2$$

Based on the multiple linear regression equation above, it can be explained as follows:

1. The constant value ( $\alpha$ ) of 0.591 indicates that the variable ( $X_1$ ) environmental costs, ( $X_2$ ) company size if it has a value of 0, then Y corporate social responsibility can be predicted to get a value of 0.591.
2. The coefficient value of  $X_1$  ( $\beta_1$ ) is -0.205 with a negative value. This means that every time environmental costs increase by 1 time, corporate social responsibility will decrease by 0.205 assuming other variables.
3. The coefficient value of  $X_2$  ( $\beta_2$ ) is 0.155 with a positive value. This means that every time the company size increases by 1 time, corporate social responsibility will increase by 0.155 with the assumption of other variables.

### Model Feasibility Test (F Test)

**Table 6.** F Test ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.452	2	.226	1.598	.004 <sup>b</sup>
Residual	8.911	63	.141		
Total	9.363	65			

a. Dependent Variable: Y-Corporate Social Responsibility

b. Predictors: (Constant), X2-Company Size, X1-Environmental Costs

**Source: SPSS secondary data processing, 2022**

The results of the F test or ANOVA test. Based on the table with the corporate social responsibility variable (almant Z score), it can be seen that the calculated F value is 1.598 with a significance level of 0.004, meaning that the significance value is smaller than the significance level of 0.05 or 0.004.  $0,004 < 0,05$ . These results explain that all independent variables, namely environmental costs and company size, explain CSR disclosure. In other words, environmental costs and company size simultaneously have a significant effect on corporate social responsibility disclosure.

### Statistical Test (t Test)

**Table 7. T Test**

		Coefficients <sup>a</sup>				Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients		Tolerance	VIF
Model		B	Std. Error	Beta	t		
1	(Constant)	.591	.095		1.666	.000	
	X1-Biaya Lingkungan	-.205	.038	-.204	-.654	.001	.992
	X2-Ukuran Perusahaan	.155	.043	.102	.824	.003	1.008

a. Dependent Variable: Y-Corporate Social Responsibility

**Source: SPSS secondary data processing, 2022**

Regression equation for this study. The environmental cost variable has a t count of -0.654 with a significance level of 0.001 < 0.05, with these circumstances, H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, so it can be concluded that partially environmental costs have a significant effect on corporate social responsibility.

Company size has a t count of 0.824 with a significance level of 0.003 < 0.05, under these circumstances, H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, so it can be concluded that partially company size has a significant effect on corporate social responsibility.

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

**Table 8. Test Coefficient of Determination (R<sup>2</sup>)**

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.220 <sup>a</sup>	.048	.518	.37609	1.773

a. Predictors: (Constant), X2-Company Size, X1-Environmental Costs

b. Dependent Variable: Y-Corporate Social Responsibility

**Source: SPSS secondary data processing, 2022**

The Adjusted R<sup>2</sup> value is 0.518 which means 51.8%. This shows that corporate social responsibility can be explained by 51.8% by the independent variables, namely environmental costs and company size. Meanwhile, 48.2% of the variation in corporate social responsibility is explained by variables outside the independent variables of this study.

### Discussion

#### The Effect of Environmental Costs on Corporate Social Responsibility (CSR)

Regression equation for this study. The environmental cost variable has a t count of -0.654 with a significance level of 0.001 < 0.05, with this situation, H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, so it can be concluded that partially environmental costs have a significant effect on corporate social responsibility.

Legitimacy theory is suitable for use in environmental costs because legitimacy for companies that care about the environment is very important so that the company can be accepted by the community in the environment where the company stands, so that company activities can continue in the future. Legitimacy theory also explains that corporate social responsibility disclosure is carried out by companies as an effort to gain recognition from the community where the company is located and maximize the company's financial situation in the long term.

The results of this study are not in line with the research of Endang Elviani, Fahmi Oemar, Agus Seswandi (2022) and Wahyu Setiawan, Leonardo Budi H, Ari Pranaditya (2018) which state that environmental costs have no effect on Corporate Social Responsibility.

### **The Effect of Company Size on Corporate Social Responsibility (CSR)**

Company size has a t count of 0.824 with a significance level of 0.003 <0.05, with this situation, H<sub>0</sub> is rejected and H<sub>a</sub> is accepted, so it can be concluded that partially company size has a significant effect on corporate social responsibility.

The link with agency theory is that the larger a company is, the greater the agency costs incurred. To reduce agency costs, companies will tend to disclose CSR more widely. Large-scale companies will be easier to obtain loans than small companies, because large companies have relatively greater growth than small companies, so the company's rate of return on shares is greater than small companies. Therefore, investors will speculate more on large companies in the hope of large profits as well.

### **The Effect of Environmental Costs and Company Size on Corporate Social Responsibility (CSR)**

In table 4.6 there are results from the F test or ANOVA test. Based on the table with the corporate social responsibility variable (almant Z score), it can be seen that the calculated F value is 1.598 with a significance level of 0.004, meaning that the significance value is smaller than the significance level of 0.05 or 0.004 <0.05. These results explain that all independent variables, namely environmental costs and company size, explain CSR disclosure. In other words, environmental costs and company size simultaneously have a significant effect on corporate social responsibility disclosure.

A high environmental cost budget is expected to support CSR so that it can give investors a good view of the company's financial statements. The effect of environmental costs and company size on CSR in this study is related to stakeholder theory. The existence of high environmental costs can reduce stakeholder claims. This signals that companies that carry out corporate social responsibility will be motivated to carry out accountability and disclosure of social and environmental information in the annual report they publish.

A sustainable CSR programme is expected to help create a more prosperous and independent community life. Each of these activities will involve the spirit of synergy from all parties to continuously build and create community welfare and independence. The current legislation provides an opportunity for all companies in Indonesia to conduct CSR activities. Although there is still much debate about whether or not the implementation of CSR is legally regulated, it does not reduce the spirit to continue to think positively that CSR must be recognised as one of the potentials that can support human survival. Especially in supporting development programmes undertaken by the government to improve the quality of human life in Indonesia.

## **4. CONCLUSION**

Research results from Environmental Costs and Company Size on Corporate Social Responsibility can be concluded as follows: (a) Environmental costs have a significant negative effect on corporate social responsibility in Mining Companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. (ii) Company size has a significant effect on corporate social responsibility in Mining Companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. (iii) Environmental costs and company size simultaneously affect corporate social responsibility in Mining Companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2021 period. For further research, it is hoped that it can increase the research sample period with a minimum of a 5-year period so that the data obtained can be better and more accurate and it should also be necessary to use a wider range of companies than mining companies, so that the conclusions from the research results can be generalised from various company sectors. as intellectual intelligence, interest in learning and so on are still needed.

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