

# IMPACT OF ENVIRONMENTAL COSTS, ENVIRONMENTAL PERFORMANCE AND ENVIRONMENTAL DISCLOSURE ON COMPANY VALUE IN BASIC MATERIALS SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR PERIOD 2017-2019

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## Abstract

This study aims to determine the effect of environmental costs, environmental performance and environmental disclosure on company value. A number of previous literatures have found a significant positive effect of the implementation of each of the three variables on company value, but the number of studies examining the impact of these three variables on company value is still limited, while stakeholders are straving on sustainable reporting, this research can be able to emphasize the importance of sustainable reporting. We build this research model based on environmental commitment, legitimacy theory and signal theory. Data testing is done by using the regression method in testing the effect of these three variables on company value. The results showed that environmental cost has significant positive impact to company value, environment performance has negative not significant impact to company value and environmental disclosure has positive impact but not significant to company value. In other result for the regression model that used in this research showed that the model can significantly predict the dependent variable.

**Keywords:** Green Accounting, Environmental Cost, Environmental Performance, Environmental Disclosure, Company Value

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## 1. Introduction

In 2012 in Rio de Janeiro, the United Nations Conference on Sustainable Development created an international association called the Sustainable Development Goals (SDGs). The SDGs contain 17 goals and 169 targets that are expected to be achieved by 2030. Global action on the SDGs was formed into an agenda, on 25 September 2015 at the United Nations (UN) Headquarters. The agenda containing the theme "Transforming our world: the 2030 Agenda for Sustainable Development". The SDGs apply to all countries without exception to achieve the goals and targets of the SDGs (SDG2030Indonesia, 2017).

The inauguration of the SDGs agenda will bring a new paradigm for the Indonesian state, starting with a government that is transforming to focus on sustainable development and a green economy. The transformation continues slowly to accounting, this was conveyed in 2018 in the book "Green Accounting" by Prof. Dr. Andreas Lako states that green accounting has broader and deeper values, meanings and implications. However, according to Prof. Dr. Andreas Lako's accounting profession's response to a paradigm of green accounting shifts turned out to be very slow, conservative and unwilling to change (Lako, 2018).

The response of the accounting profession to the slow paradigm shift is based on the provisions of the Indonesian Financial Accounting Standards (*Standar Akuntansi Indonesia*) on the implementation of accounting and reporting of accounting information on Corporate Social and Environmental Responsibility and Corporate Social Responsibility (CSR) as a periodic expense that reduces profits, value equity, and company assets (Lako, 2018).

This situation is contrary to the government's focus on the agenda of the SDG's forum in 2015 that Indonesia is already committed to transforming into sustainable development and a green economy. In fact, the results of empirical research that examines the impact of Corporate Social and Environmental Responsibility and CSR implementation on company performance and company value show that company awareness to carry out CSR in a sustainable has a positive impact on increasing company performance, company value and company sustainability (Lako, 2018). This is because the implementation of Corporate Social and Environmental Responsibility and CSR seems to be recognized as the main corporate factor, namely as a strategic company investment. The impact of this investment strategy is that the

company can strengthen the basic pillars of the business and the company can develop the business, and the company can increase the company's profit in a long term sustainable (Lako, 2018). So now, stakeholders began to encourage and take the initiative to build a new paradigm of accounting that can present information about company activities towards social and environment.

In 1988 John Elkington introduced a concept, namely the Triple Bottom Line concept or known as the concept of the basic pillars of business in running a company. The concept of the basic pillars of the business has three basics, namely the planet, people and profit (Neviana, 2010). The concept of the basic pillars of the business does not only focus on profit but also focuses on the planet and people. Due to this, there has been encouragement and initiative from various parties to create a new paradigm of accounting that can present information about the company's social and environmental activities. Prof. Dr. Andreas Lako through the book "Green Accounting" in 2018 stated that Green Accounting (Green Accounting) is a new science in accounting which explains that the focus of the accounting process is not only on transactions, events, or financial objects but also on objects, transactions, or financial objects. social

and environmental events. According to Cohen and Robbins (2011) in Hamidi (2019), Green Accounting is known as accounting that provides information on the identification, measurement, assessment, and disclosure of costs associated with company activities related to the environment.

Stakeholders are struggling to build sustainable reporting that can overcome their doubts about the company's running properly. Stakeholders need many reasons to be able to make policies related to company activities related to the environment. This encourages researchers to find the right reasons to support the implementation of a sustainability report.

Stakeholders especially government are straving to build sustainable reporting that can give more proper information about the company. Stakeholders need many reasons to make policies related to company activities and environment impact. This encourages researchers to find the right reasons to support the implementation of a sustainability reporting.

In addition to the cost element in green accounting, there are two other sub-variables of green accounting that represent the notion of disclosure and company activities related to the environment. In Rini Lestari and

colleagues (2019) there are two sub-variables in the application of green accounting, namely environmental performance and environmental disclosure.

Green Accounting costs, performance and disclosures have been regulated in mandatory government regulations, namely:

- a) UU no. 40 of 2007 Articles 66 and 74
- b) Government Regulation (PP) No. 47 of 2012 Article 6
- c) Financial Services Authority Regulation (POJK) No. 51 of 2017
- d) Financial Services Authority Regulation (SEOJK) No. 16/SEOJK.04/2021

The application of green accounting still has several problems such as problems with the provisions of Indonesian Financial Accounting Standards which are still conservative in giving an accusation to the accounting profession and the information provided by accountants is considered to have misled many parties in the evaluation and assessment of performance, risks, returns, and prospects for sustainability corporations, as well as in the consideration of economic and non-economic decision making (Lako 2018).

However, as reported by Prof. Dr. Andreas Lako (2015), that empirically many research results show that sacrifices to carry out CSR and CSR activities bring

many economic and non-economic benefits or abundant blessings for corporations. These sacrifices will increase the company's performance and company value (Lako, 2015).

## **2. Literature Review**

### **2.1 Environmental Commitment**

Environmental Commitment is very important in performance appraisal and market orientation (Somjai, Fongtanakit and Laosillapacharoen, 2020). Environmental Commitment requires organizations to look at a broad range of interrelationships between humans and the environment that also meet financial and non-financial performance criteria. It was found that Environmental Commitment significantly affects the company's short-term financial performance, measured by return on assets. Meanwhile, long-term financial performance is measured by Tobin's Q (Somjai, Fongtanakit and Laosillapacharoen, 2020).

The company's environmental commitment will be realized when environmental behavior has been implemented at all levels and activities of the company (Zeffane, Polonsky and Medley, 1994). In Rachid Zeffane, Michael Polonsky, and Patrick Medley (1995), it was found that support for top / senior management and line / functional

management for the action of implementing an environmentally friendly system is very important because it can be a demonstration or evidence to employees that companies really care about implementing environmentally friendly company performance.

## **2.2 Legitimacy Theory**

Legitimacy theory, according to Branco and Rodrigues (2006) in Paiva and Carvalho (2020), is the publication of business information on corporate social responsibility in order to portray an image that corporations have social obligation and therefore justify their conduct to their stakeholder groups. According Deegan (2004) in Tarigan and Semuel (2014), the legitimacy theory, companies are needed to continue doing business in functioning companies in order to comply with current social and environmental norms and laws so that corporate operations are regarded as legitimate by the community or the environment. The motivation to gain favor or acceptability from the community, according to the legitimacy theory. With the presence of CSR, the company expects that the community will recognize and approve the company's environmental performance.

## **2.3 Signalling Theory**

According to Richard D. Morris (1987), Signaling Theory was created to address the problem of information asymmetry in the workplace by boosting information signaling from parties with more knowledge to stakeholders with less information. Furthermore, according to Brigham & Houston (2014), Signaling Theory is a shareholder's perspective on the company's opportunities to increase the company's value in the future, and it serves as the foundation for making decisions about opportunities that are measured and analyzed through information provided by management.

In Daromes and Jao (2020), Spence (1973) says that signaling theory emphasizes the significance of information released by companies to parties outside the company since it may be used as a foundation for investment decision makers. Signals can take the shape of advertising or other information that reveals the company's competitive advantages over competitors (Asikin, Gultom and Firmansyah, 2021). In order to make informed investment decisions, investors in the capital market require complete, relevant, accurate, and timely information (Daromes and Jao, 2020).

## **2.4 Green Accounting**

According to Prof. Dr. Andreas Lako in the book "Green Accounting", Green Accounting is a process of recognizing, measuring value, recording, summarizing, reporting, and disclosing information regarding transactions, events, and or financial, social, and environmental objects in an integrated manner in the accounting process in order to produce accounting information users can utilize information that is integrated, undamaged, and relevant for economic and non-economic assessment and decision making.

The introduction of a new accounting paradigm, namely, green accounting, is an incentive to the Indonesian Accounting Association (IAI) authorized institution to address the concerns of business people, the accounting profession, and companies about conservative accounting. That was evident from the documentation of expenditure for the company's social and environmental initiatives, which are governed by PSAK regulations and are documented as periodic expenses. This has a negative influence on the company, resulting in lower earnings, assets, and the value of the company's owner's stock. As a result, Green Accounting must be standardized.

Prof. Dr. Andreas Lako states in his book that the goals of the Green Accounting Standards for companies in terms of social and environmental responsibility are:

1. Lower costs and enhance corporate profitability, equity, revenue, and assets.
2. Promote long-term company sustainability and corporate profits.
3. Increase the share price or worth of the company.
4. Encouraging the company's long-term expansion.

According to Hamidi (2019) and Rini Lestari and his colleagues (2019), there are three variables that will be used in this study, namely, Environmental Costs, Environmental Performance and Environmental Disclosure.

#### **2.4.1 The Urgency of Green Accounting**

Accounting scientists argue that the idea of Green Accounting (Green Accounting) should be developed to address the disadvantages of previous accounting, which is insensitive to social and environmental concerns in the accounting process. The following are three reasons why the use of green accounting is critical (Lako, 2018) :

1. The problem of the ecological and social crises that happened, made an allegation against the accounting report information, which became the driving

cause for every global crisis that occurred. Accounting is viewed as one of the driving forces in desire for economic activity, as seen by the exploitation of natural and social resources, as well as environmental damage. Exploitation of the environment and social actors happens as a result of the government's and economic actors' desire to maximize economic growth and profit.

2. Many people feel that the accounting information given in financial reporting and yearly reporting has been untrustworthy and irrelevant in the past.
3. The importance of Indonesia taking an active part in developing the green economy idea in order to achieve sustainable development and poverty eradication.

#### **2.4.2 Environmental Cost**

Environmental costs are the expenses made by businesses to prevent and mitigate environmental damage as a result of their operations (Hansen & Mowen, 2007). According to Hansen and Mowen, one of the most significant aspects if a company is serious about improving its environmental performance and managing its environmental expenses is disclosing an environmental cost to the company.

There are four (four) categories of environmental costs in Don R Hansen and Maryanne M. Mowen's (2007) book:

##### 1. Environmental Prevention Costs

Companies must guarantee that their manufacturing processes and activities do not harm the environment when they are carried out. When a company discovers that its goods or operations contaminate the environment, precautions must be taken to ensure that the environment and the surrounding community are not harmed. As a result, preventative actions must be costly, and these expenses are factored into environmental costs. For example, in the waste treatment process, there are charges such as the cost of machinery to treat trash and the cost of educating personnel to follow appropriate waste management practices and laws.

##### 2. Environmental Detection Costs

Environmental detection costs are the expenses of ensuring that the outcomes of each process and activity are in compliance with the environmental management regulatory requirements in place. The cost of this detection may be measured in terms of identifying environmentally friendly items, as well as the manufacturing process and non-polluting activities. For example Costs for product inspection,

certification of waste management devices, and auditing environmental operations.

### 3. Environmental Internal Failure Costs

This expense is the consequence of waste management and waste from a manufacturing process or activity that was not disposed of to the outside environment. Examples include the costs of managing toxic waste, recycling trash, and operating a waste management equipment.

### 4. Environmental External Failure Costs

This is the expense of waste management and waste from a manufacturing process or activity after they have been discharged into the outside environment. Costs are classified into two types: realized and unrealized. Realized costs are those that the company has observed and paid for, such as the cost of spilt oil, cleaning up contaminated rivers, and so on. Unrealized costs are the inverse of realized costs, — for example costs incurred by the company but carried and paid for by parties other than the corporation. Another example, when people sick with breathing problems as a result of contaminated air released by irresponsible industries.

Environmental costs are described in the financial statements or in the

Corporate Social Responsibility (CSR) part of an annual report. The Statement of Financial Accounting Standards (PSAK) 57, on the other hand, can be used to find the recording of Environmental Costs in financial statements. The foundation for recording using PSAK 57 is consistent with Hansen and Mowen's categorization of Environmental Costs (Environmental Cost).

Implementation of Environmental Cost by the company's reflects that the company is not only focused on profit, but that the company's disclosures and expenditures to protect the environment and socially are a reflection that the company adheres to the basic concept of the business pillar, also known as the Triple Bottom Line.

#### **2.4.3 Environmental Performance**

Environmental performance is a process that can be measured by implementing an environmental management system, the application is related to controlling environmental aspects (Indonesia Environment & Energy Center, 2014). Companies in Indonesia can utilize the Company's Work Rating Assessment Program to measure their environmental performance (PROPER).



PROPER is one of the Ministry of Environment's (KLH) attempts to encourage corporate governance in environmental management (Yunia wati, 2020). Regulation of the Minister of the Environment Number 03 of 2014 about PROPER is a type of assessment of compliance and performance that surpasses the duties of operations in the sphere of reducing waste pollution, environmental damage, and waste treatment.

This PROPER program is a grading based on the evaluation of reporting information on the company's environmental performance, with five grades labeled gold, green, blue, red, and black. The highest rating is a gold rating. Excellent environmental performance, according to studies on environmental performance, has a beneficial influence in the form of increased stock values (Ardhiani, 2020).

#### **2.4.4 Environmental Disclosure**

Environmental Disclosure, according to Belkaoui (1980) in Wijaya & Nuryanto (2014), is the application of social environmental principles that encourage companys to report on economic and social interactions between companies and their environment. There are two forms of disclosure in Disclosure:

Mandatory Disclosure and Voluntary Disclosure. Mandatory disclosure is one that the company is required to provide in compliance with applicable legal rules. Mandotary Disclosure is regulated and focused on the approved institution. Next that is Voluntary Disclosure, which is voluntary, indicating that there is no control or the potential of information being concealed in order to provide a positive company image. Concern for the environment by the company will generate a favorable image in the eyes of stakeholders, which can have an influence on sustainability and growing corporate value (Stuebs Jr. & Sun, 2014).

This environmental disclosure information is utilized in conjunction with various standardizations maintained by approved entities, such as the Global Reporting Initiative (GRI). GRI assists businesses and organizations in accepting responsibility for their impacts by expressing these consequences through sustainability reporting (Global Reporting Initiative, n.d). The GRI Guidelines are one of the guidelines that are widely used by companies in disclosing corporate information through sustainability reporting because, GRI continues to promote and develop this standard reporting approach to encourage demand for sustainability information, which will

benefit reporting organizations and those who use the report. Apart from reporting companies, this standard is useful for stakeholders such as investors, policy makers, capital markets, and the general public (Islami, 2021).

The GRI Standards have 2 series (Global Reporting Initiative, n.d) namely, the General Standards Series (100 Series) and topic-specific Standards Series (200 Series, 300 Series and 400 Series). The 200 series (Economic topics), 300 series (Environmental topics), and 400 series (Social topics). The standard for GRI disclosure criteria in this study is the 300 series on environmental topics. It was found that the total disclosures in the 300 series were 32 disclosures. Previous empirical and theoretical studies have found that sustainability information has a significant relationship with corporate financial performance and company value (Atan et al., 2018).

## **2.5 Company Value**

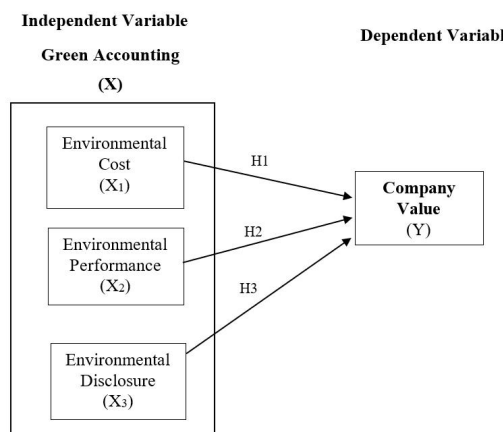
According to Hunt (2009), company value is the overall market capitalization of the corporation. According to Noerirawan and Muid (2012), company value is a condition that a company has attained as an illustration of public trust in the company after going through a process of activities for several

years, from the founding of the company to the present.

Based on the technique of computation, there are five forms of company value: nominal value, market value, intrinsic value, book value, and liquidation value (Christiawan and Tarigan, 2007). Company value is significant because high company value is followed by high shareholder prosperity (Brigham and Houston, 2006). This circumstance illustrates the fact that the higher the stock price, the greater the company's worth. The greater the business's worth, the more valuable the company will be seen by potential investors. A good company value might also represent that the company has a high level of public confidence.

Stock prices may be discovered in the stock market. According to Indra (2012) in Thaib and Dewantoro (2017), Tobin's Q Ratio is one measure of a company's market value. Tobin's Q Ratio, which is said to be capable of providing useful information because it includes all aspects of the company's debt and share capital (all company assets). The Tobin's Q Ratio provides an overview of the extent to which the market values the company from multiple perspectives, including investors, based on the findings of the ratio's formulation.

## 2.6 Conceptual Framework



**Figure 1**  
 Conceptual Framework  
 Source: developed in research (2021)

## 2.7 Hypothesis Development

### 2.7.1 The Effect of Environmental Costs on Company Value

In Dewi and Narayana's (2020) research results revealed that the effect of Environmental Costs had a significant positive influence on Company Value, with the sample of this study consisting of mining companies. The results of this study explain that the results are consistent with the statement made by the Minister of the Environment of Japan in the Environmental Accounting Guidelines, which states that environmental costs are a quantitative assessment of the cost and effectiveness of environmental protection, and that companies must keep environmental records and reports.

H<sub>1</sub> = The effect of Environmental Costs had a significant positive influence on Company Value.

### 2.7.2 The Effect of Environmental Performance on Company Value

In the research of Mardiana and Wuryani (2019) that shows that Environmental Performance has a significant influence in a positive direction on Company Value. The results of the study conclude that companies that pay more attention to environmental management are able to improve company image in the eyes shareholders, so that the value of the company will increase in line with good environmental management activities. The increasing value of the company can be interpreted that the market has given a positive response to the company's efforts in terms of environmental management activities. Investors will expect that the company will be able to manage the impact of environmental harm resulting from its operations.

H<sub>2</sub> = The effect of Environmental Performance had a significant positive influence on Company Value.

### 2.7.3 The Effect of Environmental Disclosure on Company Value

In the research, Rachma Ardhiani's research (2020) finds that there is a significant influence in a positive direction between Environmental Disclosure on Company Value. Every company has a social contract when it comes to carrying out its activities, which might have social

and environmental consequences. If a negative impact arises, Environmental Disclosure can help to mitigate it.

Environmental Disclosure is a type of corporate responsibility to the public in which the company explains all social and environmental consequences resulting from its operations. The public is the most influential stakeholder group on the company's practices, and the company's favorable image comes from the fact that it is the company's motivation for providing Environmental Disclosure (Gunawan, 2015).

H3 = The effect of Environmental Disclosure had a significant positive influence on Company Value.

### 3. Research Methods

The main research object is on annual report of company listed in Indonesia Stock Exchange (IDX), from the period 2017 to 2019. Population of this study is listed companies within IDX, from 2017 to 2019. Data collection method is purposive sampling, and the data must fulfill the criteria listed below:

**Table 1**  
**Research Sample Criteria**

No.	Description	Total
1	Basic Material Sector Companies (Main Board Index)	42
2	Companies that don't report Annual Report in the period of 2017-2019	(7)
<b>Total Sample Companies</b>		<b>35</b>
3	Total Research Data (35 x 3)	105
4	Outlier Research Data	(38)
<b>Total Research Data</b>		<b>67</b>

Source: developed in research (2021)

In this study, the dependent variable is company value and the independent variable are environmental cost, environmental performance and environmental disclosure.

### 3.1 Operational Definition and Variable Measurement

Measurement of Environmental Costs uses a dummy variable that is also used by Rosaline and Wuryani (2020). The research object of Environmental Cost is from the financial report of the company. **Value 0** for company that do not have an environmental cost component. **Value 1** for company that have an environmental cost component.

The Environmental Cost component utilized in this study is from Hansen and Mowen's book "Management Accounting," published in 2009.

Environmental performance measurement indicators may be found in the company's Sustainable Report or in the Ministry of Environment and Forestry of

the Republic of Indonesia's that being known as PROPER Rating Decree. Environmental performance is measured as follows Indonesia's Ministry of Environment and Forestry (Ministry of Environment and Forestry, 2018) that being categorized in 5 colors that has gold, green, blue, red and black.

To measure Environmental Performance, the company is assessed from its PROPER score at the central and branch levels. For each value given by Indonesia's Ministry of Environment and Forestry, a ranking score will be given which is also used in the research of Rizkan, Islahuddin and Nadirsyah (2017) is as follows:

**Table 2**  
 Scoring PROPER Rating Decree

PROPER	Score
Gold	5
Green	4
Blue	3
Red	2
Black	1

Source: developed in research (2021)

Environmental disclosure can be obtained through CSR disclosure in annual reports or through a separate sustainability report. In this research, the measurement indicators of Environmental Disclosure using the GRI Standard. In this study, the measurement of environmental disclosure items was carried out by calculations referring to the research conducted by

Apip, Sukomo and Faridah (2020) using the formula is as follows:

$$\frac{\text{Number of GRI Standard Specific Core 300 Series Items revealed by the company}}{\text{Number of items required for GRI Standard Specific Core 300 Series}} \times 100\%$$

In measuring company value in this study, which focuses on market value, i used the Tobins'q formula. If the company's Tobins'q value is greater than one, the company is considered overvalued, while if it is less than one, the company is considered undervalued. The Tobin's Q ratio used is also in Sawitri's research (2017) is as follows:

$$\text{Tobins'q} = \frac{\text{MVE} + \text{Debt}}{\text{TA}}$$

Explanation:

MVE = Market value equity  
 (Closing Price x Number of shares outstanding)

Debt = Total book value of debt  
 (Short term debt + Long-term debt)

TA = Total Book Value of Assets

In this research will use the research model are as follows:

$$\text{NP} = \alpha + \beta_1 \text{BL} + \beta_2 \text{EP} + \beta_3 \text{ED} + e$$

NP = Company Value

$\alpha$  = Constant

$\beta_1$  = Regression coefficient on Environmental Cost variable

BL = Environmental Cost

$\beta_2$  = Regression coefficient on Environmental Performance variable

EP = Environmental Performance

$\beta_3$  = Regression coefficient on Environmental Disclosure variable  
 ED = Environmental Disclosure

$e$  = Error

#### 4. Results and discussion

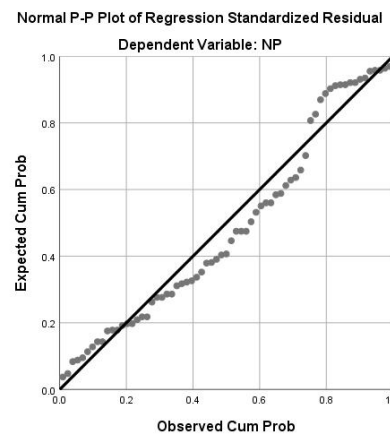
**Table 3**  
 Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
NP	67	.53	1.16	.8382	.15559
BL	67	.00	1.00	.1343	.34358
EP	67	.00	4.00	1.2551	1.54827
ED	67	.00	.88	.1035	.23151
Valid N (listwise)	67				

Source: Results of secondary data processing using SPSS (2022)

Based on the calculation results in Table 3, there are 67 observational data, the dependent variable Company Value (NP) has a maximum value of 1.16, a minimum value of 0.53 and an average value of 0.83 with a standard deviation of 0.155. The Environmental Cost (BL) variable shows that the maximum value is 1, the minimum value is 0 and the average is 0.13 with a standard deviation of 0.34. The Environmental Performance (EP) variable shows that the maximum value is 4, the minimum value is 0 and the average is 1.25 with a standard deviation of 1.54. The Environmental Disclosure (ED) variable shows that the maximum value is 0.88, the minimum is 0 and the average is 0.103 with

a standard deviation of 0.23.



**Figure 2**

Grafik Probability Plot (P-P Plot)

Source: Results of secondary data processing using SPSS (2022)

The plotted data (dots) reflect the real data along a diagonal line, indicating that the data is normally distributed, as seen in the P-P Plot graph above. In addition to looking at the P-P Plot graph, the Kolmogorov-Smirnov Test may also be used to verify the Normality Test. The results of the Kolmogorov-Smirnov normality test can be seen in Table 4 as follows:

**Table 4**  
 Normality Test Results  
**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		67
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.13650011
Most Extreme Differences	Absolute	.103
	Positive	.103
	Negative	-.102
Test Statistic		.103
Asymp. Sig. (2-tailed)		.075 <sup>c</sup>

- a. Test distribution is Normal.
- b. Calculated from data.
- c. Lilliefors Significance Correction.

Source: Results of secondary data processing using SPSS (2022)

Based on Table 4, the results of the Kolmogorov-Smirnov test show that the Unstandardized Residual in the Asymp, Sig, (2-tailed) column is 0.180. The resulting significance value is greater than 0.05 or 5 percent which means that the data in this study have been normally distributed.

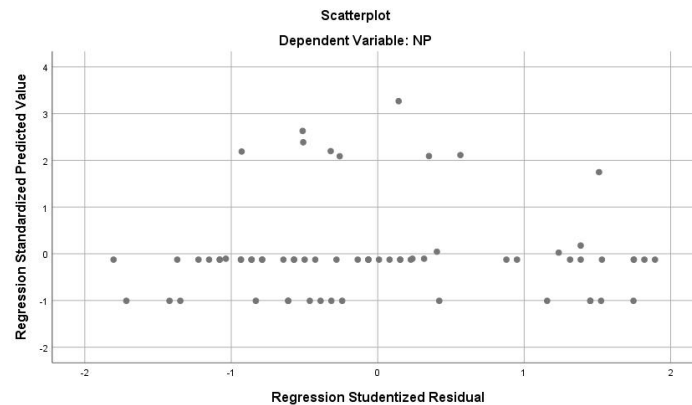
**Table 5**  
 Autocorrelation Test Results  
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.480 <sup>a</sup>	.230	.194	.13971	1.706

- a. Predictors: (Constant), ED, EP, BL
- b. Dependent Variable: NP

Source: Results of secondary data processing using SPSS (2022)

Based on the table, the Durbin Watson (d) value is 1.706. The upper limit value (dU) is known from the Durbin Watson table for n = 67 and k = 3 at a significant level of 5% is 1.6988 and the result of 4- the upper limit value (dU) is 2.3012, because the Durbin Watson value used is in the  $dU \leq d \leq 4-dU$  region, there is no auto correlation symptom.



**Figure 3**  
 Scatterplot

Source: Results of secondary data processing using SPSS

The heteroscedasticity test that I use is the scatterplot graph and the glejser test. In the figure 3, was the test of heteroscedasticity with scatterplot graph.

Next are the results of the heteroscedasticity test using the glejser test as follows:

**Table 6**  
 Heteroscedasticity Test Results

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.118	.012		10.099	.000
	BL	-.027	.031	-.120	-.866	.390
	EP	.006	.007	.119	.864	.391
	ED	-.089	.048	-.273	-1.869	.066

a. Dependent Variable: Abs

Source: Results of secondary data processing using SPSS (2022)

Based on table 6 above, it is known that all variables whose significant value is greater than 0.05, this means that all the variables analyzed have no symptoms of heteroscedasticity, then the regression analysis can be continued.

**Table 7**  
 Multicollinearity Test Results

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.829	.022		37.465	.000		
	BL	.206	.058	.454	3.549	.001	.746	1.341
	EP	-.022	.013	-.218	-1.722	.090	.759	1.317
	ED	.090	.090	.133	.993	.325	.676	1.479

a. Dependent Variable: NP

Source: Results of secondary data processing using SPSS (2022)



Based on table 7, it is known that the three independent variables have a VIF value of less than the maximum limit of 10 or a tolerance value of more than 0.10. The table results indicate that all the independent variables used in the regression equation model do not show symptoms of colonization (there is no very strong relationship between the independent variables).

From table 7, the results of the t test can also be found. The value of t table is 1.999, the results found that the relationship between environmental costs with company value is positive significant, environmental performance with company value is negative insignificant and environmental disclosure with company value is positive insignificant.

From result of the t test support the results of multiple linear regression analysis. The results of this multiple linear regression analysis used the following research model:

$$NP = 0,829 + 0,206BL - 0,022EP + 0,090ED + e$$

1. Environmental Costs have a significant influence in a positive impact on Company Value. The results obtained are in line with research conducted by Dewi and Narayana (2020), which states company's that recording of costs for the effectiveness of environmental protection is carried out with the aim of increasing company value and achieving sustainable development. This statement supports the theory of Lako (2015) that the sacrifice of the costs incurred for the company's performance on the environment will increase the company's performance and company value. Sari (2016) also stated that in the end the amount of

environmental costs incurred will provide added value socially and economically. Socially, the company will gain social legitimacy and is considered environmentally friendly by the government and the community so that the company's reputation will increase. Economically, the company can also increase the value of the company against rising stock price movements and an increase in the volume of shares traded which will certainly increase the company's stock return.

2. Environmental performance in this study has an insignificant effect with a negative impact on company value. The results of this study are in line with the research of Sawitri (2017), Khasanah and Oswari (2019) that the PROPER rating is not responded to the market as an indicator that affects market value. Investors are not too focused on the company's environmental performance with PROPER even though PROPER, is a mandatory program for companies that have risks to the environment, which is determined by the Ministry of Environment to carry out the PROPER program. The results of this study are supported by data from the Environmental Performance Index (EPI), EPI is the International 4.0 non-commercial attribution. The EPI ranks 180 countries in 2020 to provide a data-driven summary of sustainability around the world. The overall EPI ranking indicates which countries are best at tackling the environmental challenges facing each country. It was found that out of 180 countries, Indonesia is in position number 116 in Environmental Performance (Environmental Performance Index, 2020).

3. Environmental Disclosure is positively impact to company value but the effect is not significant. These results have the same results as research from Mumtazah and Purwanto (2020), which states that environmental disclosure has no significant effect on company value. Environmental Disclosure, especially with GRI standards, is still an initiative, companies that disclose the environment are usually companies that have carried out activities related

to the environment. Another possibility is that preparing environmental disclosures with GRI standards requires considerable costs. This is supported by the theory of Verrecchia (1983) and Dye (1985) regarding voluntary disclosure, which states that companies with good environmental performance will take the initiative to disclose more environmental information on company performance.

**Table 8**  
 F Test Result  
**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.368	3	.123	6.285	.001 <sup>b</sup>
	Residual	1.230	63	.020		
	Total	1.598	66			

a. Dependent Variable: NP

b. Predictors: (Constant), ED, EP, BL

Source: Results of secondary data processing using SPSS (2022)

The results of multiple linear regression in simultaneous as presented in table 6 obtained the F count value is 6.285  $\geq 2.75$  in F table. Thus, the results give the conclusion that the regression model with

the variables Environmental Cost, Environmental Performance and Environmental Disclosure is a significant model and can be used to predict or predict company value.

**Table 9**  
 Coefficient of Determination Results  
**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.480 <sup>a</sup>	.230	.194	.13971	1.706

a. Predictors: (Constant), ED, EP, BL

b. Dependent Variable: NP

Source: Results of secondary data processing using SPSS (2022)

From the results of data processing using the multiple regression method, it is known that the coefficient of determination as seen from the adjusted R<sup>2</sup> value is 0.194, meaning that all independent variables are able to explain the variation of the dependent variable. The dependent variable is company value, the percentage of the influence is 19.4%. The influence of other factors that were not observed by the researcher was  $(100\% - 19.4\%) = 80.6\%$ , while the rest was explained by other factors not included in the model.

## **5. Conclusion, Limitation and Future Research**

### **5.1 Conclusion**

Based on these various tests, the results of the research and discussion that have been carried out can be concluded that:

1. Environmental costs have a significant positive effect on company value. The results of the study concluded that the company's recording and sacrifice of costs to the environment had a

social and economic impact. This can reflect that the disclosure of Environmental Costs revealed the company's actions are well received by the community and become a positive signal to investors regarding the inclusion of Environmental Costs in the financial statements. This situation supports the signaling theory, because the disclosure of environmental costs give a signal to company that the company has a social responsibility for performance company.

2. Environmental Performance has no significant effect in a negative impact on Company Value. The results of the study conclude that PROPER is not a focus for investors and the market in making decisions to make transactions with companies. The influence of Environmental Performance is still too small or lost compared to the influence of the financial aspect, so that investors are more inclined pay

attention to the performance of financial aspects compared to the performance of environmental aspects (Hapsoro and Adyaksana, 2020). That's some factors made company not really participate in PROPER.

3. Environmental Disclosure has a positive but not significant effect on Company Value. The results of the study conclude that the company will make environmental disclosures if the company has good environmental performance and another conclusion that making environmental disclosures, especially with GRI standards requires a fairly high cost. The results of this study provide allegations that the company's environmental commitments have not yet been implemented maximum. This results are in line with the research of Stiaji, Diana and Afifudin (2017), that the effect of environmental disclosure on firm value has a significant effect in a negative direction. On

that research also suspects that the tendency of investors to buy shares more dominant to see the company's profit than the company's image. Apart from being partial, it was also found that the Green Accounting regression model with Environmental Cost, Environmental Performance and Environmental Disclosure variables was a significant model for predicting company value with a determination level of 19.4%. This result can be improved by adding other independent variables or by increasing the number of supporting samples.

## **5.2 Research Limitation and Future Research**

The researcher realizes that the conclusions of this study still have many shortcomings and are not perfect. Suggestions that researchers can give after conducting research and seeing the results of the conclusions above are that it is hoped that the results of this

research can be a consideration for the government to start setting the application of Green Accounting manually. With this stipulation, all companies (especially those with risks to the environment) can implement Green Accounting as an accountability to the government and society.

In addition, it is hoped that the industrial sector can make wise decisions regarding the implementation of Green Accounting. Based on the results of this study, the existing independent variables are proven to be able to predict company value. Therefore, the company's environmental commitment to implementing Green Accounting is very important. Further research is expected to be able to overcome the limitations of the current research by expanding the use of samples of other sector companies listed on the Indonesia Stock Exchange (IDX) in order to obtain a more objective and representative view, as well as adding other independent variables such as environmental commitment,

profitability, structure capital and others that have not been studied in this study. In addition, it can also replace research proxies such as ISO 14001 for Environmental Performance or CSR for Environmental Aspects for Environmental Disclosure variables.

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