

THE EFFECT OF ENVIRONMENTAL PERFORMANCE, ENVIRONMENTAL COST, AND ENVIRONMENTAL DISCLOSURE ON FINANCIAL PERFORMANCE OF ENERGY SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE 2021 - 2023**¹Romaida Hutajulu**

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ABSTRACT

This study aims to analyze the influence of Environmental Performance, Environmental Cost, and Environmental Disclosure on Financial Performance. This study was conducted on energy sector companies listed on the Indonesia Stock Exchange for the 2021-2023 period. This study was conducted to analyze factors influencing Financial Performance, including Environmental Performance, Environmental Cost, and Environmental Disclosure. The approach used was quantitative with multiple linear regression analysis using SPSS 25. The research sample consisted of 17 companies. The results showed that partially environmental performance did not affect financial performance, partially environmental cost did not affect financial performance, and partially environmental disclosure did affect financial performance. Simultaneously, Environmental Performance, Environmental Cost, and Environmental Disclosure affected Financial Performance.

Keywords: Environmental Performance, Environmental Cost, Environmental Disclosure Financial Performance

ABSTRAK

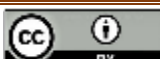
Penelitian ini bertujuan untuk menganalisis pengaruh Kinerja Lingkungan, Biaya Lingkungan, dan Pengungkapan Lingkungan terhadap Kinerja Keuangan. Penelitian ini dilakukan pada perusahaan sektor energi yang terdaftar di Bursa Efek Indonesia periode 2021 - 2023. Penelitian ini dilakukan untuk menganalisis faktor - faktor yang memengaruhi Kinerja Keuangan, meliputi Kinerja Lingkungan, Biaya Lingkungan, dan Pengungkapan Lingkungan. Pendekatan yang digunakan adalah kuantitatif dengan analisis regresi linier berganda menggunakan SPSS 25. Sampel penelitian terdiri dari 17 perusahaan. Hasil penelitian menunjukkan bahwa secara parsial kinerja lingkungan tidak memengaruhi kinerja keuangan, secara parsial biaya lingkungan tidak memengaruhi kinerja keuangan, dan secara parsial pengungkapan lingkungan memengaruhi kinerja keuangan. Secara simultan, Kinerja Lingkungan, Biaya Lingkungan, dan Pengungkapan Lingkungan memengaruhi Kinerja Keuangan.

Kata Kunci: Kinerja Lingkungan, Biaya Lingkungan, Pengungkapan Lingkungan, Kinerja Keuangan

I. INTRODUCTION

In an era of globalization and rapid economic development, environmental issues have become a primary concern for various parties, including governments, communities, and companies. The energy sector, as a significant sector, plays a significant role in maintaining the balance between economic growth and environmental preservation.

Environmental performance (PROPER) is a key indicator of business sustainability, reflecting a company's ability to manage its environmental impact through greenhouse gas emission reduction,



waste management, and renewable energy use. Studies conducted by Husda, Azmiana, Banjarnahor, H. (2023) and Rahayudi, Apriwandi (2023) show that good environmental performance is positively related to a company's financial performance .

Environmental Cost is an increasingly important factor in the modern business world and should not be taken lightly. These costs include expenses incurred by companies to comply with applicable environmental regulations, implement environmentally friendly technologies, and invest in sustainability initiatives. Although investing in environmental aspects is often viewed as an additional burden, several studies show that in the long term, these costs can provide benefits through increased operational efficiency and a better corporate reputation. For example, research conducted by Melinda Sari (2023) found that environmental costs incurred by mining companies can have a positive impact on the company's financial performance , provided there is adequate improvement in environmental performance.

Environmental Disclosure (GRI Standard 300 series) Environmental disclosure is another aspect that is gaining increasing attention. This disclosure refers to the information provided by a company regarding its environmental initiatives and performance in its annual report or sustainability report. Transparency in environmental disclosure can increase the trust of investors and other stakeholders, which can ultimately have a positive impact on a company's financial performance .

The relationship between Environmental Performance, Environmental Cost, and Environmental Disclosure with a company's Financial Performance is crucial, particularly in the energy sector, which has a significant environmental impact. The energy sector in Indonesia contributes significantly to economic development but is also a major contributor to carbon emissions and environmental degradation.

The Indonesia Stock Exchange (IDX) has demonstrated its commitment to supporting sustainable business practices through initiatives such as the Sustainable and Responsible Investment Index (SRI-KEHATI). IDX-listed companies are expected to improve transparency and corporate responsibility on environmental issues. Therefore, this study focuses on energy sector companies listed on the IDX during the 2021-2023 period to explore the influence of Environmental Performance , Environmental Cost , and Environmental Disclosure on company financial performance .

To date, many companies have neglected the environment around them, and their operations in producing products and services are not environmentally friendly, resulting in significant environmental damage. For example, coal logistics issuer PT RMK Energy Tbk is facing administrative sanctions from the Ministry of Environment and Forestry (KLHK). This has impacted the performance of the company, coded RMKE. The administrative sanctions from the KLHK are one of the causes of RMKE's declining revenue, in addition to the normalization of coal prices until the third quarter of 2023. RMKE's operating revenue was recorded at IDR 1.8 trillion until the third quarter of 2023, down 3.4 percent compared to the same period the previous year (year on year/YoY) of IDR 1.9 trillion. PT RMKE is accused of violating environmental protection and management, particularly related to loading and unloading activities or coal stockpiling at its stockpile in Muara Enim. The KLHK found evidence that these activities pollute the air. PT TBBE (a subsidiary of RMKE) polluted a local palm oil plantation in Muara Enim due to waste disposal. (Kumparan.com). As a result of this incident, the company was required to temporarily suspend its operations and/or activities and improve its environmental management efforts. This incident significantly impacted the company's financial performance by reducing profits. Therefore, to resolve this issue, the company must develop a concept capable of addressing these environmental issues and managing them.

Based on these phenomena, researchers chose energy sector companies as the research subjects, due to the relatively high number of environmental damage caused by energy sector companies. The Central Statistics Agency (BPS) recorded that in 2024, there were 11,019 villages or sub-districts experiencing water pollution, 947 villages or sub-districts experiencing land pollution, and 4,754 villages or sub-districts experiencing air pollution out of 83,763 villages in Indonesia. This indicates that companies in Indonesia, including the energy sector, have not implemented effective and proper

environmental management in managing and disposing of hazardous and toxic waste, and have not created environmentally friendly products.

II. LITERATURE REVIEW

Stakeholder Theory

According to (Ghozali & Chariri, 2013), in stakeholder theory, a company is not an entity that only operates for its own interests, but must provide benefits to its stakeholders (shareholders, investors, creditors, consumers, suppliers, government, society, company analysts, and other parties). Thus, the existence of a company is greatly influenced by the support provided by stakeholders .

Legitimacy Theory

Legitimacy theory focuses on the interaction between companies and society. Gray (1995) argues that legitimacy is a corporate management system oriented towards supporting society, government, individuals, and community groups.

Return Environmental Performance

Environmental performance or environmental performance according to (Putra & Utami, 2017) is Environmental performance (Environmental Performance) is a mechanism for companies to voluntarily integrate environmental concerns into their operations and interactions with stakeholders, which goes beyond the organization's legal responsibilities. PROPER is an indicator from the Ministry of Environment and Forestry. The PROPER performance ranking strata for company involvement in environmental sustainability include 5 (five) colors with scores given consecutively from the highest value, namely 5 for gold, 4 for green, 3 for blue, 2 for red, and 1 for black .

Environmental Cost

Environmental costs are costs incurred internally and externally by a company, including all costs related to environmental damage and protection. According to (Hansen & Burhany, 2022), companies can implement this principle through environmental cost management and control. The five core objectives from an environmental cost perspective are minimizing the use of raw materials or virgin materials, the use of hazardous materials, energy requirements for product production and use, the release of solid, liquid, and gaseous residues, and maximizing opportunities for recycling.

Environmental Disclosure

Environmental Disclosure is an important process in the business world and organizations, where data or information is conveyed openly to the parties who need it. The implementation of transparent and responsible Environmental Disclosure can be the first step towards better environmental management. Therefore, Government regulations and the GRI 300 Series Standards are used as criteria to assess the extent of environmental disclosure in sustainability reports. The environmental aspects required to be disclosed are as outlined in the GRI 300 Series Standards and POJK No. 51/POJK.03/2017.

Financial Performance

A company's financial performance is a crucial indicator of how a company manages its financial resources to achieve its business goals. Financial performance is often assessed through various indicators, such as profitability, liquidity, solvency, and operational efficiency. According to Kasmir (2018), financial ratios are divided into four groups: liquidity ratios, solvency ratios, activity ratios, and profitability ratios. Of the four ratios mentioned, the profitability ratio, proxied by Return on Assets (ROA), is used in this study.

Research hypothesis

1. The Influence of Environmental Performance on Financial Performance

Environmental performance reflects a company's concern for its surrounding environment. If the environment and resources surrounding the company are well maintained, the company's environmental performance will also be good (Zahrani & Fitri, 2024). A company's environmental performance focuses on reducing the negative impacts of its activities and protecting the environment (Maryati & Hariyono, 2020). Environmental performance also plays a significant role in a company's economic activities, impacting its financial performance. Improved environmental performance can

save costs and increase sales, thus improving the company's financial performance. This explanation is supported by research by (Nababan & Hasyir, 2019), which shows that environmental performance has a positive and significant effect on financial performance. This is in contrast to research by (Meiyana & Aisyah, 2019), which shows that environmental performance does not have a significant effect on financial performance.

H₁: Environmental performance has a positive effect on financial performance.

2. Influence Environment Cost Towards Financial Performance

Environmental costs are costs arising from both internal and external sources within a company, including all costs related to environmental damage and protection. These costs include prevention, disposal, planning, and repair costs for damage that occurs within the company (Nababan & Hasyir, 2020). Allocating costs for environmental management demonstrates a company's consistent environmental awareness, thereby building public trust and corporate social responsibility. This can be used as a strategy to increase company profits and contribute to competitive advantage. While allocating environmental costs to a company in the short term is a burden and reduces profits, in the long term it can result in energy savings, monitored and controlled environmental damage, sustainable environmental improvements, increased company productivity, and a positive image of an environmentally friendly company, ultimately improving the company's financial performance (Ermaya & Mashuri, 2020).

H₂: Environmental costs have a positive effect on Financial Performance

3. The Influence of Environmental Disclosure Towards Financial Performance

The Ministry of Environment and Forestry (KLHK) through its website describes environmental disclosure as a term applied by institutions or organizations in order to disclose any information related to the environment, whether it has been approved (audited) or not, environmental risks, environmental impacts, strategies, policies, cost targets, environmental accountability or performance to interested parties with the aim of increasing the value of the relationship with the institution or organization that issued the report (Maulana, Ruchjana & Nurdiansyah, 2021).

H₃: Environmental performance has a positive effect on financial performance.

4. The Influence of Environmental Performance, Environmental Cost and Environmental Disclosure on Financial Performance

The relationship between Environmental Performance, Environmental Cost, and Environmental Disclosure with Financial Performance is a strategic topic that has received much attention in sustainable business research. Environmental performance measures the extent to which a company is successful in managing environmental aspects, such as pollution levels, efficient use of natural resources, and waste management. Environmental Cost includes the total costs incurred by a company for various environmental management activities, ranging from pollution prevention costs, clean technology investments, to waste processing. Meanwhile, Environmental Disclosure focuses on the transparency of environmental information disclosed by a company in its financial and sustainability reporting, including environmental management practices, operational impacts, sustainability initiatives, and risks and opportunities related to environmental issues. These three aspects are suspected to simultaneously influence a company's Financial Performance through several mechanisms.

H₄: Environmental performance, environmental cost and environmental disclosure simultaneously influence financial performance

III. RESEARCH METHODOLOGY

Type of Research

This research method uses causal associative research to determine the cause-and-effect relationship between two or more variables. This research is conducted to identify the influence of one variable on another by examining the relationship between the two. The type of research conducted in this study is causal associative research (Sugiyono, 2022).

Population and Sample

The population used in this study was all energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period, with a total of 90 issuers. From this total population, a sample was selected. The sample is a portion or representative of the population to be studied. The sample selection in this study was based on purposive sampling. According to Sugiyono (2020), purposive sampling is conducted based on subjective decisions based on certain considerations. The considerations used as criteria in this study are:

1. There are 90 Energy Sector Companies listed on the Indonesia Stock Exchange for the 2021-2023 Period
2. There were 40 companies that did not present complete annual financial report information in 2021 – 2023.
3. There were 33 companies that did not provide complete sustainability report information in 2021-2023.

Of the 90 companies, only 17 companies met the criteria as samples with a research period of 3 years, so the total number of observation data was 51.

Data Analysis Technique

This study used multiple linear regression with several preliminary tests, including descriptive statistics and classical assumption tests. Data analysis aimed to statistically process the data to answer the research problem formulation.

Descriptive Statistical Test

Descriptive statistics are used to describe data characteristics such as mean, median, standard deviation, variance, and minimum and maximum values (Ghozali, 2020). This test will explain the Financial Performance variable, Environmental Performance, Environmental Cost and Environmental Disclosure

Classical Assumption Test

This test is carried out to test the feasibility of the data being analyzed, including:

Normality Test

The normality test is a test conducted to determine whether the data used in this study is normally distributed or not. In this study, the normality test chosen is the Kolmogorov Smirnov test. In addition to the Kolmogorov Smirnov test, the normality test can also be seen from the Histogram graph and the Normal Probability Plot image. (Ghozali, 2018).

Multicollinearity Test

The multicollinearity test is used as an intermediary to determine the presence of a high level of correlation between two variables in a study. To detect the presence or absence of multicollinearity in a regression model, it is necessary to pay attention to the tolerance and variance inflation factor (VIF) values. A tolerance value > 0.1 and a VIF < 10 are required.

Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is inequality in the variance of the residuals from one observation to another in the regression model. Ghozali, (2020:134) uses the Glejser Test by regressing the absolute value of the residuals against the independent variable.

Autocorrelation Test

The goal is to detect correlation between periods with the previous period. The Durbin-Watson test is used with the following criteria: DW below -2 (positive autocorrelation), DW between -2 and +2 (no autocorrelation), and DW above +2 (negative autocorrelation).

Multiple Linear Regression Analysis

A model involving more than one independent variable (Ghozali, 2020) to measure the strength of the relationship between variables. This study uses two regression models:

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \text{ (Factors that influence Financial Performance)}$$

Hypothesis Testing

Testing to assess whether the hypothesis is accepted or rejected.

Partial Test (t Test)

The t-test is used to show the individual influence of independent variables on the dependent variable (Ghozali, 2020). The hypothesis is accepted if the significance value $\bar{y} < 0.05$, and rejected if $\bar{y} > 0.05$.

Simultaneous Test (F Test)

Shows the influence of independent variables simultaneously on the dependent variable. If the Sig value is < 0.05 , then the independent variables simultaneously have a significant influence on the dependent variable.

Test Coefficient of Determination (R^2)

Measures how well a regression model explains the variation in the dependent variable. R^2 values range between 0 and 1, with values close to 1 indicating that the independent variable provides almost all the information to predict the variation in the dependent variable.

IV. RESULTS AND DISCUSSION

Descriptive Statistical Results

Descriptive statistics are used to provide an overview of the research data sampled in the study. Descriptive statistics in this study focus on the minimum, maximum, mean, and standard deviation values shown in Table 1:

Table 1. Descriptive Statistical Test Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Standard Deviation
FP	51	-.246	.593	.12251	.186437
EF	51	2.0	5.0	3,529	.8331
EC	51	.016	5,756	.45996	.818146
ED	51	.225	1,000	.72059	.174979
Valid N (listwise)	51				

Source: Processed SPSS Data 25, 2025

From the data above, the results of the descriptive statistical analysis can be interpreted as follows:

1. Environmental performance (EF) has a minimum value of 2.0, a maximum value of 5.0, an average value of 3.529, and a standard deviation of 0.8331. This means that the average value is greater than the standard deviation, indicating that the distribution of the Environmental performance (EF) variable values is good.
2. Environmental Cost (EC) is 0.016, the maximum is 5.756, the average value is 0.45996, and the standard deviation is 0.818146. Therefore, the average value is smaller than the standard deviation, indicating that the distribution of Environmental Cost (EC) data is relatively poor.
3. Environmental Disclosure (ED) The minimum value is 0.225, the maximum value is 1.000, the average value is 0.72059, and the standard deviation is 0.174979. Therefore, the average value is greater than the standard deviation, indicating a distribution of Environmental Disclosure (ED). Good.
4. Financial Performance (FP), minimum is -0.246, maximum value is 0.593, average value is 0.12251 and standard deviation is 0.186437. Thus, the average value is smaller than the standard deviation indicating that the distribution of Financial Performance (FP) data is relatively poor.

Classical Assumption Test

Normality Test

The normality test is conducted to determine whether the disturbance variables or residuals in regression have a normal distribution. There are two ways to detect whether the residuals are normally distributed or not, namely graphical analysis and statistical testing (Ghozali, 2020). To test whether the research sample is normally distributed, the Kolmogorov-Smirnov Goodness of Fit Test is used for each variable. Data is categorized as normally distributed if the significance level (α) > 0.05 .

Classical Assumption Test

Normality Test

Table 2. Normality Test Results

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		51
Normal Parameters ^{a,b}	Mean	.0000000
	Standard Deviation	.16308665
Most Extreme Differences	Absolute	.147
	Positive	.147
	Negative	-.093
Test Statistics		.147
Asymp. Sig. (2-tailed)		.007 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Processed SPSS Data 25, 2025

The probability value or that indicated by Asymp. Sig. (2-tailed) is 0.007 or smaller than the significance level of 0.05, it can be concluded that the data is not normal. The results of the normality test after data transformation and outlier data can be seen in the table below:

Normality Test After Transformation

Table 3. Normality Test Results After Data Transformation and Outliers

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		44
Normal Parameters ^{a,b}	Mean	.0000000
	Standard Deviation	1.39612148
Most Extreme Differences	Absolute	.116
	Positive	.077
	Negative	-.116
Test Statistics		.116
Asymp. Sig. (2-tailed)		.157 ^c
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		

Source: Processed SPSS Data 25, 2025

Probability value or Asymp. Sig (2-tailed) with normality test using One test Sample The Kolmogorov-Smirnov probability value, 0.157, is greater than the required significance level of 0.05. This means the normality assumption is met



Figure 1. Normal P-Plot

Source: Processed SPSS Data 25, 2025

Based on the probability plot image, it shows that the data points are spread around the diagonal line, so it can be concluded that the data is normally distributed.

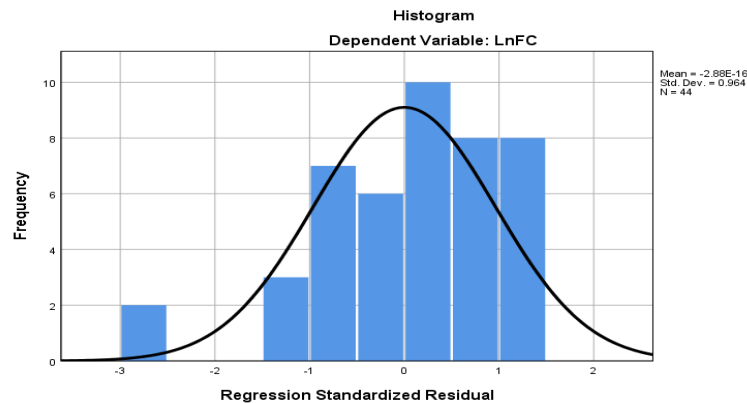


Figure 2. Graphics Histogram

Source: Processed SPSS Data 2 5, 2025

Based on the image above, the histogram forms a bell and does not slope to the left or right, it can be concluded that the data is normally distributed.

Multicollinearity Test

Table 4. Multicollaterality Test Results

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF
1	(Constant)	-3,442	1,606			
	LnEF	.795	1,100	.126	.771	1,296
	LnEC	-.106	.185	-.088	.969	1,032
	LnED	.771	.934	.145	.752	1,329
a. Dependent Variable: LnFP						

a. Dependent Variable: LnFP

Source: Processed SPSS Data 25, 2025

Based on the table above, the test results through the Variance Inflation Factor (VIF) of each independent variable have a Tolerance value > 0.10 and a Variance Inflation Factor (VIF) value < 10 . Thus, it can be concluded that in this regression model there is no multicollinearity between the independent variables.

Table 5. Autocorrelation Test Results

Runs Test	
	Unstandardized Residual
Test Value ^a	-.01920
Cases $<$ Test Value	25
Cases \geq Test Value	26
Total Cases	51
Number of Runs	21
Z	-1,554
Asymp. Sig. (2-tailed)	.120
a. Median	

Source: Processed SPSS Data 25, 2025

Based on the test results after autocorrelation correction, it can be concluded that the Asymp. Sig (2-tailed) value is $0.120 > 0.05$, so it can be concluded that there are no autocorrelation symptoms.

Heteroscedasticity Test

Table 6. Autocorrelation Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	2,761	1,536		.080
	FP	2,900	1,833	.260	.122
	EF	-.694	.380	-.302	.076
	EC	-.191	.322	-.089	.557
	ED	-1,428	2,066	-.128	.494

a. Dependent Variable: Ln_RES

Source: Processed SPSS ver 25, 2025

Based on the table above, the sig values of the independent variables are 0.122; 0.076; 0.557; and 0.494, respectively. The sig value of the independent variables is greater than 0.05. Therefore, it can be concluded that there are no symptoms of heteroscedasticity.

Multiple Linear Regression Test

Table 7. Multiple Regression Analysis Test Results

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-.062	.047		.192
	Ln_EP	-.021	.012	-.187	.100
	Ln_EC	.010	.013	.091	.461
	Ln_ED	.222	.047	.569	.000

a. Dependent Variable: Ln_FP

Source: Processed SPSS ver 25, 2025

Based on Table 7, the following equation is obtained:

$$Y = -0.062 - 0.021 X_1 + 0.010 X_2 + 0.222 X_3$$

Based on this equation, the following can be explained:

The equation above can be interpreted as follows:

1. The constant value (a) of -0.062 means that if the environmental performance, environmental cost, and environmental disclosure variables are assumed to be constant, then the financial performance value is -0.062.
2. environmental performance regression coefficient of -0.021 indicates that if each environmental performance increases by one unit, the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021 - 2023 period decreases by 0.021.
3. environmental cost regression coefficient of 0.010 indicates that if each environmental cost increases by one unit, the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period increases by 0.010.
4. Environmental disclosure regression coefficient of 0.222 indicates that if each environmental disclosure of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period increased by 0.222.

Partial Hypothesis Test (t-Test)

Table 8. Partial Significance (T-Test)

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	-.062	.047		.192
	Ln_EP	-.021	.012	-.187	.100
	Ln_EC	.010	.013	.091	.461

	Ln_ED	.222	.047	.569	4,673	.000
a. Dependent Variable: Ln_FP						

Source: Processed SPSS ver 25, 2025

The environmental performance variable is $0.100 > 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($-1.677 < 1.67528$). Therefore, H_0 is rejected and H_1 is accepted, so it can be concluded that partially environmental performance does not affect the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period. The significance value of the environmental cost variable is $0.461 > 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($0.743 < 1.67528$) So H_0 is rejected H_2 is accepted so it can be concluded that partially environmental costs do not affect the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period. The significance value of the environmental disclosure variable is $0.000 < 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($4.673 > 1.67528$) H_3 is accepted and H_0 is rejected so it can be concluded that partially environmental disclosure affects the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period

Simultaneous Hypothesis Test (F-Test)

Table 9. Simultaneous Significance Tests (F-Test)

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.176	3	.059	11,187	.000 ^b
	Residual	.246	47	.005		
	Total	.421	50			

a. Dependent Variable: Ln_FP

b. Predictors: (Constant), Ln_EF, Ln_EC, Ln_ED

Source: Processed SPSS Data 25, 2025

Based on the table above, the results show that the sig. value is $0.000 < 0.05$ and the F table value is $11.187 > 2.80$. So the independent variables (Environmental Performance, Environmental Cost, and Environmental Disclosure) simultaneously have a significant effect on the dependent variable (Financial Performance) of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period

Coefficient of Determination Test (R^2)

Table 10. Coefficient of Determination (R^2)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.645 ^a	.417	.379	.07232

a. Predictors: (Constant), Ln_ED, Ln_EC, Ln_EF

b. Dependent Variable: Ln_FP

Source: Processed SPSS ver 25, 2025

Based on the table above, it can be concluded that the Adjusted R square value of 0.379 means 37.9%. This means that 37.9% of the influence of Environmental Performance, Environmental Cost, and Environmental Disclosure on the Financial Performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021 - 2023 period, while 62.1% is the influence of other variables not examined in this study.

Discussion

1. The Influence of Environmental Performance on Financial Performance in Energy Sector Companies Listed on the Indonesia Stock Exchange During the 2021 - 2023 Period. Environmental performance is one manifestation of various environmental management activities carried out by companies. This is in line with research conducted by (Cahyani & Mayangsari, 2022) which states that from the company's perspective, allocating funds for environmental conservation will increase costs for the company, thereby reducing company profits. However, this differs from research conducted by

(Alfianah & Rizkianto, 2023; Chandra et al., 2024). According to (Alfianah & Rizkianto, 2023), environmental performance has a positive influence on financial performance because companies with good environmental performance will receive a positive response from stakeholders and also have an impact on long-term increases in company revenue.

2. The influence of environmental costs on financial performance in energy sector companies listed on the Indonesia Stock Exchange during the 2021 - 2023 period. These results align with research by (Saifuddin & Wiyono, 2023), which found that environmental costs had no effect on financial performance. However, this contrasts with research by (Meiyana & Aisyah, 2019) and (Suandi & Ruchjana, 2021).
3. The Effect of Environmental Disclosure on Financial Performance in Energy Sector Companies Listed on the Indonesia Stock Exchange During the 2021-2023 Period . Environmental disclosures conducted by a company provide information on the company's performance in its responsibilities to stakeholders . This indicates that companies that increasingly conduct more detailed environmental disclosures will have an impact on the company's financial performance, which will increase. Conversely, if fewer environmental disclosures are conducted, the company's financial performance will also decline. This is also supported by research conducted by (Janah & Handayani, 2020) which states that environmental disclosure has a positive influence on financial performance. However, in contrast to research conducted by (Wahdah & Jayanti, 2023), Environmental Disclosure does not have a significant effect on Financial Performance.

V. CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of the analysis carried out on the research sample, the following conclusions can be drawn:

1. The environmental performance variable is $0.100 > 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($-1.677 < 1.67528$). Therefore, H_0 is rejected and H_1 is accepted, so it can be concluded that partially environmental performance does not affect financial performance. in energy sector companies listed on the Indonesia Stock Exchange during the 2021 - 2023 period .
2. The significance value of the environmental cost variable is $0.461 > 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($0.743 < 1.67528$). Therefore, H_0 is rejected and H_2 is accepted, so it can be concluded that environmental costs partially have no effect on financial performance. in energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period .
3. The significance value of the environmental disclosure variable is $0.000 < 0.05$. The calculated $t_{\text{value}} < t_{\text{table}}$ ($4.673 > 1.67528$) H_3 is accepted and H_0 is rejected so it can be concluded that environmental disclosure partially has an effect on financial performance. in energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period .
4. The sig. value is $0.000 < 0.05$ and the F_{table} value is $11.187 > 2.80$. So the independent variables (Environmental Performance, Environmental Cost and Environmental Disclosure) simultaneously have a significant effect on the dependent variable (Financial Performance) of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period.
5. Based on the coefficient of determination analysis, the Adjusted R square value was obtained at 0.379, meaning 37.9%. This means that 37.9% of the influence of Environmental Performance, Environmental Cost, and Environmental Disclosure on the Financial Performance of energy sector companies listed on the Indonesia Stock Exchange during the 2021-2023 period, while 62.1% is the influence of other variables not examined in this study.

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