

The Effect of Environmental Costs and Green Investment on Sustainability Finance

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Keywords

Environmental Costs, Green Investment, Sustainability Finance, Coal Mining.

Abstract

This study examines how environmental costs and green investment affect sustainability finance in coal mining subsector companies listed on the Indonesia Stock Exchange (IDX), especially during 2020 to 2024. This study uses a quantitative method with secondary data obtained from the company's annual report and sustainability report. The sampling technique used is purposive sampling so that 68 observation data that meet the research criteria are obtained. Hypothesis testing was carried out using t-test and F-test to analyze the partial and simultaneous influence of the study variables. The results of the partial test showed that environmental costs had a negative and significant effect on sustainability finance, while green investment had a positive and significant effect on sustainability finance. Meanwhile, the results of simultaneous testing show that environmental costs and green investment together have a significant effect on sustainability finance. The results of this study show the importance of effective environmental cost management and increasing green investment in supporting the company's financial sustainability. Further research is suggested to add moderation or mediation variables to clarify the factors that affect sustainability finance.

INTRODUCTION

Global economic developments encourage companies to not only be oriented towards achieving financial profits, but also pay attention to the social and environmental impact of the operational activities carried out. Increasing awareness of sustainability issues makes environmental, social, and governance (ESG) aspects an important concern in the global financial system. This condition encourages a paradigm shift in financial management from previously focusing on short-term profits to a more balanced approach between economic, social, and environmental aspects. In line with these developments, sustainability finance emerged as a financing strategy that integrates environmental, social, and governance aspects in the financial decision-making process. Sustainability finance has also become a priority agenda in various countries, including Indonesia, as the demands on the business sector to implement more responsible and sustainable business practices are increasing. Increased attention to ESG aspects also affects investor behavior, where investors no longer only consider the company's financial performance, but also pay attention to environmental, social, and corporate governance performance in making investment decisions. (Migliorelli, 2021) (Kustinah & Susyani, 2025) (Dwi Jayanti et al., 2024)

In Indonesia, the implementation of sustainable finance is further strengthened through Financial Services Authority Regulation Number 51/POJK.03/2017 which requires financial services institutions, issuers, and public companies to integrate economic, social, and environmental aspects into the company's operational activities, including the preparation of a Sustainable Finance Action Plan (RAKB) and sustainability reports. The regulation shows that the implementation of sustainability finance has become an important part of supporting economic

stability as well as environmental and social sustainability of companies. However, the implementation of sustainability finance still faces various challenges, such as limited understanding, human resource capacity, and inconsistency in the application of sustainability principles at the company level. (Halimatussadiah et al., 2018)

One of the sectors that is closely related to sustainability issues is the coal mining subsector. This subsector not only plays an important role in supporting the national economy, but is also one of the sectors that has a fairly high investment attraction for domestic and foreign investors because of its promising business prospects. The contribution of the coal mining subsector to the national economy is reflected in its role in increasing Indonesia's Gross Domestic Product (GDP). Based on (Winarso, 2020) www.bi.go.id data, the contribution of the coal mining subsector to Indonesia's GDP increased significantly in 2021 and 2022 after previously declining in 2020 due to the COVID-19 pandemic. However, in 2023 and 2024, the coal mining subsector will again experience a slowdown in growth due to the normalization of global commodity prices and increasing sustainability demands. In addition to contributing to the national economy, the operational activities of coal mining companies also cause various environmental impacts, such as land damage, air pollution, loss of vegetation, and low post-mining reclamation which has the potential to cause environmental degradation and social risks. These conditions encourage companies to not only focus on achieving profitability, but also pay attention to environmental sustainability and the company's financial stability in the long term. (Werner et al., 2023)

Sustainability finance in this study is proxied using Return on Equity (ROE) because ROE is able to describe a company's ability to generate profits based on the company's capital. Based on data from coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period, the average Return on Equity (ROE) fluctuates from year to year. After being in negative conditions in 2020, the ROE value experienced a significant increase in 2021 and reached its peak in 2022, before declining again in 2023 and 2024. These fluctuations show that the sustainability finance of coal mining subsector companies is not yet fully stable and is still influenced by various internal and external factors of the company. This condition indicates the importance of the company's ability to maintain profitability to support business continuity and minimize the risk of a sustainable decline in financial performance. (Dwi & Prasetya, 2024) (Akmaludin & M. Sembiring, 2024)

As attention to sustainability issues increases as a result of various environmental problems caused by industrial activities, especially in the coal mining subsector, companies are required to implement environmental management more responsibly to minimize negative impacts on the environment while supporting the company's sustainability finance. One of the factors that is suspected to affect sustainability finance is environmental costs. Environmental costs are expenses allocated by the company for activities to prevent, control, and recover environmental impacts arising from the company's operational activities. Environmental cost expenditure also reflects the company's commitment to carrying out business activities oriented towards sustainability and environmental responsibility. Previous research on the influence of environmental costs on sustainability finance still shows mixed findings. Research shows that environmental costs do not have a significant effect on sustainability finance. Instead, the study found that environmental costs affect Return on Equity (ROE). The difference in the results of the study shows that the effect of environmental costs on sustainability finance still needs further study (Nurani Hartikayanti et al., 2023) (Ratnaningrum et al., 2025) (Wicaksono, 2024) (Melinda Sari, 2023) (Fadhillah & Pandin, 2024) (Putri & Pandin, 2025)

In addition to environmental costs, another factor that is suspected to affect sustainability finance is green investment. Green investment is a form of investment directed at environmentally friendly economic activities, such as investment in clean technology, energy efficiency, emission reduction, and sustainable resource management. Green investment not only reflects the company's commitment to environmental sustainability, but also becomes the company's strategy in improving business sustainability and company competitiveness (Rosyid & Mukatsih, 2023). Green investment also reflects the company's commitment to integrating environmental aspects into its business strategy so that it is able to create economic value while supporting the company's sustainability in the long term. (Pebrianti & Mulyandini, 2025) However, the results of previous research related to the influence of green investment on sustainability finance also still show mixed findings. Research states that green investment has a positive effect on ROE in the long run. In contrast, the study found that green investment had no significant effect on ROE. The inconsistency of the findings of previous research shows the need for further studies on the influence of green investment on sustainability finance, especially in the coal mining subsector which has high environmental risks. (Chen & Ma, 2021) (Hidayat et al., 2024) (Bride & Candy, 2023)

Based on these conditions, this study aims to analyze the influence of environmental costs and green investment on sustainability finance in coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. Although environmental costs and green investment are part of a company's sustainability practices, the results of previous research still show mixed findings regarding the influence of these two variables on sustainability finance. Research that examines the influence of environmental costs and green investment on sustainability finance in the coal mining subsector is also relatively limited, even though this subsector has high environmental risks and increasing sustainability demands. Therefore, this study was conducted to analyze the influence of environmental costs and green investment, both partially and simultaneously, on sustainability finance in coal mining subsector companies listed on the Indonesia Stock Exchange.

METHODS

This study uses a quantitative approach with the type of causality research to analyze the influence of environmental costs and green investment on sustainability finance. Research data was obtained from the company's annual report, sustainability report, and financial statements. The sampling technique uses purposive sampling, which is a sample selection technique based on certain criteria that are in accordance with the research objectives. The population in this study consists of coal mining subsector companies listed on the Indonesia Stock Exchange (IDX) for the period 2020 to 2024. Sample selection was carried out based on the following criteria:

1. Coal mining subsector companies listed on the Indonesia Stock Exchange (IDX) for the period 2020–2024.
2. Coal mining subsector companies that consistently publish annual reports and sustainability reports during the 2020-2024 period.
3. Coal mining subsector companies that have complete data related to research variables during the 2020–2024 period.

Based on these criteria and after the elimination of outlier data to meet the normality assumptions in the classical assumption test, a final sample of 68 observational data (N=68) was obtained.

Independent Variables

Environmental Costs

Environmental costs are company expenses that are used to manage and control environmental impacts due to the company's operational activities as a form of responsibility for the environment and business sustainability. Environmental costs include waste management, pollution control, reclamation, environmental rehabilitation, and environmental quality monitoring. In this study, environmental costs are measured by comparing total environmental costs to net profit after tax. The environmental cost measurement formula used refers to the following: (Habib Siregar et al., 2022) (Habib Siregar et al., 2022)

$$\text{Biaya Lingkungan} = \frac{\text{Biaya Lingkungan}}{\text{Laba Bersih Setelah Pajak}}$$

Green Investment

Green Investment is an investment made by a company to support environmentally friendly business activities such as energy efficiency, emission reduction, the use of clean technology, and sustainable resource management. Green Investment reflects the company's commitment to supporting environmental sustainability while improving business sustainability. In this study, Green Investment was measured by comparing the cost of green investment to the company's total assets. The Green Investment measurement formula used refers to the following: (Rosyid & Mukatsih, 2023) (Zhang & Berhe, 2022)

$$\text{Green Investment} = \frac{\text{Biaya Investasi Hijau}}{\text{Total Assets}}$$

Dependent Variable

Sustainability Finance

Sustainability finance is a concept of corporate financial management that integrates economic, social, and environmental aspects in maintaining the sustainability of the company's financial performance. Sustainability finance not only focuses on achieving financial benefits, but also emphasizes the company's ability to generate profits sustainably. To measure sustainability finance, various financial ratios can be used, such as liquidity, profitability, efficiency, and solvency. In this study, sustainability finance is proxied using Return on Equity (ROE) because ROE is able to describe the company's ability to generate profits based on the capital owned by the company. The Return on Equity (ROE) measurement formula refers to the following: (Dwi & Prasetya, 2024) (Cohen, 2021) (Putra, 2017) (Putra, 2017)

$$\text{ROE} = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Ekuitas}} \times 100$$

Framework and Hypothesis

The Effect of Environmental Costs on Sustainability Finance

Environmental costs are costs incurred by companies to manage environmental impacts arising from operational activities. Based on legitimacy theory, the allocation of environmental costs reflects the company's commitment to carrying out responsible business activities so that it can increase stakeholder trust and support the sustainability of the company's financial performance. The findings are supported by research by Fadhillah and Pandin (2024), Putri and Pandin (2025), Gloria Okafor (2018), and Sari (2023) which shows that environmental costs have a positive effect on a company's financial performance. Therefore, environmental costs are suspected to have a positive effect on sustainability finance.

H1 : Environmental Costs have a positive effect on Sustainability Finance.

The Influence of Green Investment on Sustainability Finance

Green investment is an investment directed at environmentally friendly activities and technologies to support the company's sustainability. Based on signaling theory, the implementation of green investment can be a positive signal for investors and stakeholders regarding the company's commitment to sustainability so that it has the potential to increase operational efficiency, competitiveness, and sustainability of the company's financial performance. These findings are supported by research by Chen and Ma (2021), Tanasya and Handayani (2020), and Hidayat et al. (2024) which show that green investment has a positive effect on a company's financial performance. Therefore, green investment is suspected to have a positive effect on sustainability finance.

H2: Green Investment has a positive effect on Sustainability Finance.

The Influence of Environmental Costs and Green Investment on Sustainability Finance

Environmental costs and green investment are a form of the company's commitment to supporting sustainable business practices. Effective management of environmental costs and the right allocation of green investment can improve operational efficiency, reduce environmental risks, and strengthen the sustainability of the company's financial performance. These findings are supported by research by Chen and Ma (2021) and Fadhillah and Pandin (2024) which show that green investment practices and integrated management of environmental aspects can have a positive impact on the company's financial performance in the long term. Therefore, environmental costs and green investment are suspected to have simultaneous effects on sustainability finance.

H3: Environmental Costs and Green Investment have a simultaneous effect on Sustainability Finance.

Research Model

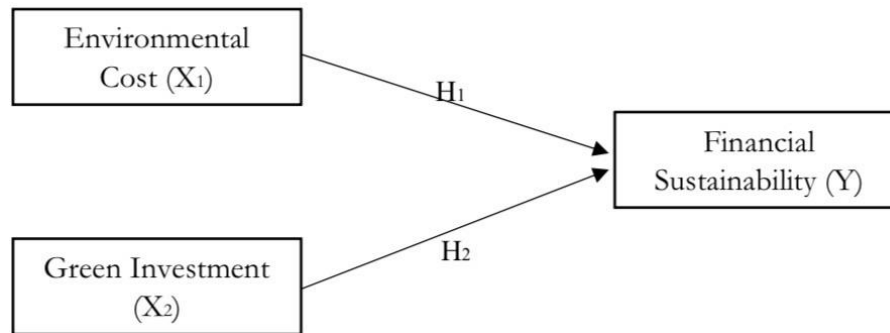


Figure 1. Research Model

The data used in this study is secondary data obtained from the annual report, sustainability report, and financial statements of coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. The data analysis technique used was multiple linear regression analysis to test the influence of environmental costs and Green Investment on sustainability finance. Data processing was carried out using Microsoft Excel 2021 and IBM SPSS Statistics version 27. Data analysis includes descriptive statistics, classical assumption tests, and hypothesis testing to ensure accurate and reliable research results.

RESULTS AND DISCUSSION

Research Results

At the beginning of the study, the amount of data used was 75 observations obtained from 15 coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. The results of the normality test showed that there were some data that did not meet the assumption of normality and some extreme data (outliers) were found. Therefore, data that do not meet the assumption of normality are excluded from the analysis to maintain the accuracy and reliability of the research results. After the data screening process was carried out, the number of observations that met the analysis criteria became 68 observations. In addition, to overcome the symptoms of autocorrelation is carried out using the Cochrane-Orcutt method so that the regression model used meets classical assumptions.

Descriptive Statistics

Descriptive statistical analysis is used to provide an overview of the characteristics of the research data which include the number of observations, minimum values, maximum values, mean values, and standard deviations of each research variable.

Table 1. Descriptive Statistical Test Results

	Descriptive Statistics				
	N	Minimum	Maximum	Red	Std. Deviation
Environmental Costs	68	0,0004	3,0109	0,121949	0,3900782
Green Investment	68	0,0001	0,0950	0,009210	0,0174497
Sustainability Finance (ROE)	68	-0,19	4,40	2,8603	1,08701
Valid N (listwise)	68				

Source: IBM SPSS 27 output results (data processed 2026)

Based on the results of data processing, this study uses 68 observation data. The Environmental Cost variable has a minimum value of 0.0004, a maximum value of 3.0109, an average value of 0.121949, and a standard deviation of 0.3900782. This shows that companies' environmental costs vary considerably between companies during the study period. The Green Investment variable has a minimum value of 0.0001, a maximum value of 0.0950, an average value of 0.009210, and a standard deviation of 0.0174497. These results show that the level of Green Investment of companies during the study period tends to fluctuate in individual companies. Meanwhile, the Sustainability Finance variable proxied with Return on Equity (ROE) has a minimum value of -0.19 and a maximum value of 4.40. The average score obtained was 2.8603 with a standard deviation of 1.08701. The value of the standard deviation that is smaller than the average value indicates that Sustainability Finance data tends to be more stable and has a relatively low rate of data spread.

To provide a more detailed picture of the condition of each research variable during the observation period, the average Environmental Cost, Green Investment, and Sustainability Finance in coal mining subsector companies in 2020–2024 are presented in Table 2.

Table 2. Average Cost of Environment, Green Investment, and Sustainability Finance

Year	Environmental Costs	Green Investment	Sustainability Finance (ROE)
2020	5,29%	1,04%	-6,13%
2021	4,87%	0,76%	37,62%
2022	2,27%	0,71%	51,55%
2023	26,78%	0,92%	28,10%
2024	14,02%	1,00%	22,03%

Source: www.idx.co.id Data Processed (2026)

Based on Table 2, the average Environmental Cost of coal mining subsector companies fluctuates during the 2020-2024 period. The average value of the Environmental Cost decreased in 2021 and 2022, then increased significantly in 2023 before declining again in 2024. These fluctuations show that environmental cost expenditure has not been carried out consistently in each period. The difference is related to the company's needs in carrying out various environmental management activities, such as post-mining land reclamation, waste management, pollution control, and the fulfillment of environmental obligations that are adjusted to the company's operational activities.

The average Green Investment also fluctuated during the study period. The value of Green

Investment decreased in 2021 and 2022, then increased again in 2023 and 2024. These fluctuations show that the allocation of investments that support environmentally friendly activities and technologies has not been carried out consistently in each period. This situation is related to the company's policy in determining investment priorities to support operational efficiency, the application of environmentally friendly technology, and the sustainability of business activities.

Meanwhile, Sustainability Finance, which is proxied by Return on Equity (ROE), showed an increase from 2020 to reach the highest value in 2022, then decreased in 2023 and 2024. These fluctuations show a change in the level of the company's sustainability finance during the research period. One of these conditions is related to fluctuations in coal commodity prices that affect the company's financial performance.

Based on the results of descriptive statistics and the annual average of each variable, it can be seen that Environmental Costs, Green Investment, and Sustainability Finance show different trends during the study period. The findings provide an initial overview of the condition of each variable before further analysis is carried out regarding the relationship and influence between variables.

Classical Assumption Test

Table 3. Classical Assumption Test Results

Ye s	Classical Assumption Test	Results	Decision
1	Normality Test	Asymp. Sig. (2-tailed) value 0.200 > 0.05	Normal distributed data
2	Multicollinearity Test	EC; GI Tolerance Value = 0.871; 0.871 > 0.10 EC; GI VIF Value = 1,149; 1,149 < 10	There is no multicollinearity
3	Heteroscedasticity Test	EC; GI significance value = 0.602; 0.162 > 0.05	There is no heteroscedasticity
4	Autocorrelation Test	Durbin-Watson Value= 1,806 $dU < d < 4 - dU$ $1.6678 < 1.806 < 2.3322$	There is no autocorrelation

Source: *IBM SPSS 27* output results (data processed 2026)

Based on the results of the classical assumption test, the results were obtained that the regression model had met all the required assumptions. The Kolmogorov-Smirnov test shows that the data is normally distributed. The multicollinearity test also showed that there were no

problems with the independent variables because the overall VIF value was below 10 and the tolerance value was above 0.10. The heteroscedasticity test showed that all independent variables had a significance value above 0.05 so that there were no symptoms of heteroscedasticity. In addition, the Durbin-Watson value of 1.806 is within the permissible range, indicating that there is no autocorrelation. The results of these tests show that the regression model is feasible to use for further analysis.

Multiple Linear Regression Analysis

Table 4. Multiple Linear Regression Analysis Test Results

Coefficient					
Models	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2,250	0,125		18,053	0,000
LAG_X1	-1,518	0,308	-0,565	-4,925	0,000
LAG_X2	18,688	6,766	0,317	2,762	0,007

a. Dependent Variable: LAG_Y

Source: *IBM SPSS 27* output results (data processed 2026)

Based on the data in Table 4, the multiple linear regression equation in this study can be written as follows:

$$Y = 2,250 - 1.518X_1 + 18.688X_2 + \epsilon$$

The results of multiple linear regression analysis showed that environmental costs have a regression coefficient of -1.518 which means that environmental costs have a negative effect on sustainability finance. This shows that the increase in environmental costs tends to be followed by a decrease in the company's sustainability finance. Meanwhile, green investment has a regression coefficient value of 18,688 which shows that green investment has a positive effect on sustainability finance. This means that the higher the green investment made by the company, the company's sustainability finance tends to increase.

Correlation Test

Correlation analysis is used to find out how strong the relationship between an independent variable (X) and a dependent variable (Y) is. Correlation analysis is also used to determine the direction of the relationship between variables, whether they have a positive or negative relationship.

Table 5. Correlation Analysis Results

Correlations

		Environmental Costs	Green Investment	Sustainability Finance (ROE)
Environmental Costs	Pearson Correlation	1	0.360**	-0.377**
	Sig. (2-tailed)		0,003	0,002
	N	68	68	68
Green Investment	Pearson Correlation	0.360**	1	0,108
	Sig. (2-tailed)	0,003		0,381
	N	68	68	68
Sustainability Finance (ROE)	Pearson Correlation	-0.377**	0,108	1
	Sig. (2-tailed)	0,002	0,381	
	N	68	68	68

** . Correlation is significant at the 0.01 level (2-tailed).

Source: *IBM SPSS 27* output results (data processed 2026)

The results of Pearson's correlation analysis showed that environmental costs had a negative and significant relationship with sustainability finance, which was shown by the value of the correlation coefficient of $r = -0.377$ and the significance value of $p = 0.002$. In addition, green investment has a positive relationship with sustainability finance with a correlation coefficient value of $r = 0.108$ and a significance value of $p = 0.381$. The results of this study show that an increase in environmental costs tends to be followed by a decrease in sustainability finance, while an increase in green investment tends to be followed by an increase in sustainability finance even though the relationship that occurs is still very low.

Determination Coefficient Test

Table 6. Results of Determination Coefficient Analysis

Model Summary ^b				
Models	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.531 ^a	0,282	0,260	0,94657

a. Predictors: (Constant), LAG_X2, LAG_X1

b. Dependent Variable: LAG_Y

Source: *IBM SPSS 27* output results (data processed 2026)

Based on the results of the determination coefficient test in Table 6, the Adjusted R Square value of 0.260 was obtained. This shows that the variables of environmental costs and green investment are able to explain sustainability finance by 26.0%, while the remaining 74.0% are explained by other variables outside the research model.

Hypothesis Testing

Partial Hypothesis Test (t-test)

Table 7. Statistical Test Results t

Coefficient					
Models	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2,250	0,125		18,053	0,000
LAG_X1	-1,518	0,308	-0,565	-4,925	0,000
LAG_X2	18,688	6,766	0,317	2,762	0,007

a. Dependent Variable: LAG_Y

Source: *IBM SPSS 27* output results (data processed 2026)

The results of the partial test showed that the significance level of the environmental cost variable and green investment was less than 0.05 which was the significance level in this study. In addition, the environmental cost variable has a t-value of -4.925 and the green investment variable has a t-value of 2.762. These results show that environmental costs have a negative and significant effect on sustainability finance, while green investment has a positive and significant effect on sustainability finance.

Simultaneous Hypothesis Test (F-test)

Table 8. Statistical Test Results f

NEW ERA					
Models	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	22,533	2	11,266	12,574	0.000b
Residual	57,343	64	0,896		
Total	79,876	66			

a. Dependent Variable: LAG_Y

b. Predictors: (Constant), LAG_X1, LAG_X2

Source: *IBM SPSS 27* output results (data processed 2026)

The results of the simultaneous test showed that the F value was 12.574 and the significance value was 0.000. The significance level is less than 0.05, so it can be concluded that the variables of environmental costs and green investment simultaneously have a significant effect on sustainability finance proxied by Return on Equity (ROE).

DISCUSSION

The Effect of Environmental Costs on Sustainability Finance

The results of the hypothesis test show that environmental costs have a negative and significant effect on sustainability finance. This shows that the greater the environmental costs

incurred by the company, the sustainability finance proxied with Return on Equity (ROE) tends to decrease. This condition occurs because environmental costs are company expenses used for environmental management and restoration activities, so that they can reduce the company's profits in the current period. Environmental costs in coal mining subsector companies are generally used for waste management, land reclamation, pollution control, and post-mining environmental restoration. These expenses require considerable costs so that they can affect the company's profitability level in the short term. Therefore, the higher the environmental costs incurred by the company, the level of sustainability finance of the company tends to decrease.

However, the results of this study are different from the research hypothesis. In this study, environmental costs are suspected to have a positive effect on sustainability finance. The allegation is based on the assumption that environmental costs are a form of the company's commitment to carrying out environmental responsibility and supporting sustainable business practices. Environmental cost expenditures allocated for waste management, pollution control, land reclamation, and environmental restoration activities are expected to improve the company's reputation, gain the trust of stakeholders, and support the company's financial sustainability in the long term. However, the results of the study show that environmental costs have a negative effect on sustainability finance. These results indicate that relatively large environmental cost expenditures are still seen as a burden that can reduce the company's profits in the short term, resulting in a decrease in Return on Equity (ROE) as a proxy for sustainability finance. The results of this study are in line with the research conducted by , , and which states that environmental costs have a negative effect on sustainability finance. (Melinda Sari, 2023) (Hapsoro & Adyaksana, 2020) (Dewata et al., 2018)

The Influence of Green Investment on Sustainability Finance

The results of the hypothesis test show that green investment has a positive and significant effect on sustainability finance. This shows that the higher the green investment made by the company, the more sustainability finance proxied with Return on Equity (ROE) tends to increase. This condition shows that the implementation of green investment is able to support the improvement of the company's sustainability finance through more efficient and sustainable resource management. These results are in accordance with the research hypothesis that green investment has a positive effect on sustainability finance. Green investment reflects the company's commitment to carrying out sustainability-oriented business activities through investments in environmentally friendly technology, energy efficiency, and emission reduction. The implementation of green investment can improve operational efficiency and the company's image in the eyes of investors so that it has an impact on improving company performance. Thus, companies that implement green investment tend to have better sustainability finance. The results of this study are in line with the research, , and which states that green investment has a positive and significant effect on sustainability finance. This shows that sustainability-oriented investments can increase investor confidence and support the company's growth in the long term. (Chen & Ma, 2021) (Tanasya & Handayani, 2020) (Hidayat et al., 2024)

The Influence of Environmental Costs and Green Investment on Sustainability Finance

Based on the results of simultaneous testing, it is shown that environmental costs and green investment together have a significant effect on sustainability finance.

The results of this study show that Environmental Costs and Green Investment simultaneously have a significant effect on the company's Sustainability Finance. Environmental Costs relate to the company's expenditures on management activities and environmental responsibilities that may affect the company's return on equity. Meanwhile, Green Investment reflects the company's commitment to supporting sustainable business activities through investment in technology and environmentally friendly activities. Thus, the management of Environmental Costs and Green Investment together contributes to the company's Sustainability Finance. Therefore, companies need to manage environmental costs effectively and increase sustainability-oriented investments to support financial performance and business sustainability in the long term.

CONCLUSION

This study aims to analyze the influence of environmental costs and green investment on sustainability finance in coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. The results of the study show that environmental costs have a negative and significant effect on sustainability finance, while green investment has a positive and significant effect on sustainability finance. In addition, the results of simultaneous testing show that environmental costs and green investment together have a significant effect on sustainability finance. These findings show that environmental cost management and the implementation of green investment are factors that play a role in influencing the sustainability finance of coal mining subsector companies.

This research has several limitations, especially in the scope of the sample which is only limited to coal mining subsector companies listed on the Indonesia Stock Exchange for the 2020-2024 period. In addition, this study only uses environmental costs and green investment as variables that affect sustainability finance. Therefore, further research is recommended to expand the observation period, increase the scope of the industrial sector, and consider other sustainability variables such as green accounting, environmental, social, and governance (ESG), carbon emission disclosure, and environmental performance in order to gain a more comprehensive understanding of the factors that affect sustainability finance.

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