

# Effect Of Eco-Efficiency, Operating Activities, Environmental Accounting On Financial Performance In Mining Companies Listed On The Indonesia Stock Exchange

Widarti<sup>1\*</sup>, Yuni Ekawarti<sup>2</sup>, Triana Agustini<sup>3</sup>, Muhamad Hidayat<sup>4</sup>

<sup>1234</sup> Universitas Tamansiswa Palembang

\*Correspondence: Widarti

[widarti@unitaspalembang.ac.id](mailto:widarti@unitaspalembang.ac.id)

Received: 05<sup>th</sup> Agst 2024

Revised: 10<sup>th</sup> Sept 2024

Accepted: 20<sup>th</sup> Sept 2024

Published: 31<sup>h</sup> Oct 2024

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## Abstract

The aim of objective of this research is to determine the impact of Eco-Efficiency, Operational Activities and Environmental Accounting on the Financial Performance of Mining Companies listed on the Indonesia Stock Exchange. This type of research uses associative research methods. The sample for this research was consisted of 96 Mining Companies listed on the Indonesia Stock Exchange in 2020-2023 which were obtained using the purpose sampling method. Based on the research findings on Eco-Efficiency, Operational Activities and Environmental Accounting have a simultaneous effect on the Financial Performance of Mining companies listed on the Indonesia Stock Exchange, while only partially Eco-Efficiency does not have a significant effect on the Financial Performance of mining companies. listed on the Indonesian Stock Exchange

## Keywords

Financial Performance, Eco-Efficiency, Operational Activity, Environmental Accounting

## Introduction

In the era of economic modernity, Indonesian companies are increasingly developing more and more rapidly, both in terms of production processes, human resources, and production technology. Business activities carried out by companies not only affect their employees, manager and staff but also have the impact on the social environment in which the company is established (Kholida, 2020). The impact created by business activities on the social environment around the business has not only a positive impact, but also a negative impact, especially those dealing with the use of natural resource. One of the positive impacts of the use of natural resources is the creation of competition in business where companies seek to gain attraction to improve their performance. (Asniwati, 2020)

The Financial performance is considered good in a company when the financial report presented is consistent with what is happening in the company, regardless of whether it is high profits or that the company has difficulties in its financial sector (Asniwati, 2020). Companies achieve high profits through strong and efficient financial performance (earnings) (Sari and Rahayu 2020). To evaluate the progress of the company, the financial performance at the end of the period must be considered. As a form of the necessary comparison needed in the evaluation process, it is possible to use internal or external standards. Internal standards are often associated with the evaluation of a company's performance in relation to its competitors or other industries (Fuadah et al, 2020). A number of financial analyses, including an examination of the company's profitability, can be used to measure financial performance (Fuadah et al., 2020).

The financial performance of carbon emitters, on average, saw a decline in revenue or net profit from 20% to more than 50% on a year on year (YoY) basis in the half of 2020, there were also coal mining companies that lost money (Fadliansyah, 2020). The net profit of coal mining companies, namely Indo Tambangraya Mega Tbk (ITMG), fell by more than 50%, the net profit in June 2019 was 70.8 million USD, which decreased to 29.8 million USD. Meanwhile, the net profit of Bukit Asam Tbk (PTBA) decreased by 44%. Based on data collected by idx. the profit/loss of the mining sector especially the profit / loss in 2019-2022 is as follows.

**Table 1** YoY Profit (Loss) from year to year of Coal Mining Companies  
(Source: idx.co.id)

YEAR	ADRO	ITMG	MYOH	PTBA	TOBA
Profit(2019)	5.613.750	1.799.150	362.432.057	4.056.888.000	369.249.860
Profit (2020)	2.069.394	556.710.245	317.496.384	2.386.819.000	346.459.478
Profit (2021)	13.335.600	6.785.908	384.456.052	7.909.113.000	685.904.336
Profit (2022)	38.954.375	18.878.316	219.394.688	12.567.582.000	909.120.424

Based on Table 1 The decrease in financial performance in 2020 is reflected in the decrease in the net value of the company, caused by the decrease in the carbon base price (HBA), due to the decrease in demand for coal and a weakened coal. production due to the pandemic (Ovseychuk, 2023). The opposite situation occurred in 2021-2022, with an increase in the workforce. The economy gradually improved in 2021-2022 with an increase in demand for coal goods and services. The French President Director of PT Adaro Energi Indonesia explained that the increase in demand for coal demand and ASP that occurred in 2021 was much greater than the increase in production costs, so the clean coal mining industry grew significantly in 2021 (Rahadian, 2022). By companies, the financial performance fluctuates in the mining companies, the financial performance becomes a metric to see the future development of the company. In terms of looking at the future development of the company by measure the financial performance with several methods of measuring financial performance, including by looking at the profitability of the company. (Novi, 2020)

Profitability as a good financial performance can be affected by the operational financing of the company, one of which is the financing of environmental management (Mumtazah & Purwanto, 2020). Companies will effectively distribute environmental benefits when they implement environmental management to reduce the impacts (eco-efficiency) (Fuadah et al., 2020). Unfortunately, companies see these responsibilities as additional liabilities. However, he believes

that the environmental costs will only be a cost of reducing profits for the business (Omofoyewa, 2023). On the other hand, the sharing of environmental management costs shows the company's determination to protect the environment and help win the hearts of the community. Since the money collected at this time can help the company's reputation, this environmental fee can be seen as a long-term corporate investment. This is consistent with Camilia's (2020) statement that community development programmes (which generate environmental costs) will be able to boost reputation if they are publicised. This has an impact on competitive advantage and can be used as a tactic to increase sales turnover or business profits. The products produced use natural resources as effectively as possible, so that no natural resources are wasted in the form of waste, thereby reducing or even minimising the level of wasted energy. The more efficient the use of natural resources, the less energy is wasted, this will reduce environmental expenditures and make financial performance better. Research conducted by Meiyana & Aisyah (2019) states that the application of eco-efficiency has an effect on financial performance. Eco-efficiency is defined by Derwall, Guenster, Bauer, & Koedijk (2005) as the economic value created by the company through the products and services it produces and the waste that is the result of the production process.

Eco-efficiency is not the only factor that can affect financial performance. The operational activity ratio, however, is still another element that should be examined. The capacity of a business to produce the greatest number of products while utilising its resources most effectively may be measured by activity ratios. The cash flow statement of the company's total net cash flow from operations can be used to calculate cash flow from operating activities (Wardaya, 2020). The company's main source of income is the majority of cash flow from operating activities, therefore this cash flow often comes from transactions and other events that have an impact on the calculation of the company's net profit or loss. Cash inflows and outflows of cash or cash equivalents are referred to as cash flows in Statement of Financial Accounting Standards No. 2 Paragraph 05 (IAI, 2007). Transactions are divided into three categories based on cash flow or cash flow statement: operating, financing, and investing. Operating cash flow surplus is generated through the efficiency and effectiveness of operating cash flow management, which encourages improved financial performance. Research conducted by Syakhiya (2020) and Riyanto et al. (2021) state that operating activity has an effect on financial performance. Apart from the operating activity ratio, there are other factors related to financial performance, namely environmental accounting disclosure.

Environmental disclosure is the publication of environmental variables as accounting data, when the information published is numerical results (Burhany, 2020). Environmental accounting disclosure is related to the financial performance of the company because any influence that the company has will pose a danger to its operations and performance of its activities. The better the disclosure of environmental accountability of the company, the more it will increase public trust in this case investors in providing their capital through shares (Wei, 2024). The capital owned by the company will be able to increase the results of the company's performance. In accordance with agency theory, decisions and policies from agents and principals that can cooperate will be able to increase the company's financial performance in the form of profitability or profit. Research conducted by Yuanasti (2022) states that the disclosure of environmental accounting has an effect on financial performance.

Mining companies are high profile companies that have a high level of sensitivity and are in the spotlight of the community due to the level of company operations that have a large number of

workers and in the production process they cause impact on the environment in the form of waste and pollution (Prayugo, 2020). mining companies have different characteristics and characteristics from other industries. The mining sector is one of the pillars of a country's economic development, because of its role as a provider of energy resources that are indispensable for the growth of a country's economy. The rich potential of natural resources can grow companies to exploit the mining of these resources and also the shares of mining companies are very attractive to investors. The high trading volume of mining sector stocks encourages companies to display financial reports in the best possible way.

### Methods

The data collection technique used by researchers in this research is documentation. This search is carried out by means of library searches and computer searches for data in electronic format (Hirsbrunner, 2024). The data presented in this electronic format include library catalogues, Indonesian Stock Exchange reports and internet sites. Data for the Financial Performance variable (Y) is obtained from the company's annual report and data for the Eco-Efficient variable (X1), Operating Activities (X2) and Environmental Accounting (X3) are obtained from the company's annual report. Data collection is done by browsing the annual reports selected as samples (Pezoulas, 2024).

### Results and Discussion

#### Descriptive Statistics

In this chapter, it will be discussed sequentially about the results of the research in the form of data description of each variable, testing the requirements of analysis, namely testing hypotheses that test the effect of Eco-Efficiency, Operating Activities and Environmental Accounting on Financial Performance (Empirical Study of Mining Companies Listed on the Indonesia Stock Exchange). The discussion has been processed with the SPSS Programme and tries to provide conclusions and suggestions from the results of the research.

Based on sample data on mining companies listed on the Indonesia Stock Exchange in 2020-2023 obtained from the Indonesia Stock Exchange which is taken based on the purposive sample method with the criteria of mining companies listed on the Indonesia Stock Exchange in 2020-2023, mining companies that publish annual reports in 2020-2023, mining companies that do not use foreign currency, mining companies that have a sustainability return in 2020-2023 and mining companies that are studied have complete data, which is in accordance with the research variables, namely Eco-Efficient measures, Operating Activities and Environmental Accounting.

With the time span of the research observation period for 4 years, namely from 2020-2023, the number of years of research samples is 96 samples, then the statistical description of the variable data used in this study is obtained. Descriptive statistics of the Eco-Efficient (ECO) variable data, Operating Activities and Environmental Accounting can be seen below:

**Table 1** Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
ROA	.2315	1.24203	96

Eco-Efisien	4558.11	11588.75	96
Operating Activities	3.0742	.18146	96
Environmental Accounting	2194	5959	96

Source: Data Processing Results, 2024

Based on table 1, it can be seen that the average value of the variable Financial Performance (ROA) of mining companies listed on the Indonesia Stock Exchange with an observation period of 4 years, namely the period 2020-2023, is an average of 0.2315, ROA serves to measure the effectiveness of the company in producing centuries by utilising its assets. The greater the ROA owned by a company, the more efficient the use of activities so that it will increase profits. The standard deviation value of ROA is 1.24203.

The average value of the Eco-Efficient variable for mining companies listed on the Indonesia Stock Exchange with an observation time of 4 years, namely the period 2020-2023, is an average of 4558.11, Eco-efficiency functions as a management control mechanism to reduce the impact of the company on the environment and at the same time create more value for shareholders. The standard deviation value of Eco-Efficiency is 11588.75.

The average value of the variable Operating Activities of Mining companies listed on the Indonesia Stock Exchange with observation time for 4 years, namely the period 2020-2023, is an average of 3.0742, operating activities are the main revenue- producing activities of the entity (principal revenue- producing activities) and other activities that are not investment activities and financing activities and the standard deviation value is 0.18146.

The average value of the environmental accounting variable of mining companies listed on the Indonesia Stock Exchange with an observation time of 4 years, namely the 2020-2023 period, is an average of 2194, environmental accounting is a modern post of social accounting as a form of social responsibility. and the standard deviation value is 5959.

**Normality Test**

The normality test is used to find out whether the residual values used are normally distributed or not. In this study, researchers used two methods, the first by using the One Sample Kolmogorov Smirnov Test and the second by looking at the distribution of data on the diagonal sources on the Normal P-P Plot of regression standardised residual graph. The normality of the data distribution is calculated by comparing the Asymptotic Significance value obtained with the  $\alpha = 0.05$  value. If  $Asymp\ Sig > \alpha = 0.05$  then the data is declared normal.

**Tabel 2** Normality Test

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		96
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.15253192
Most Extreme Differences	Absolute	.083
	Positive	.036

	Negative		-.083
Test Statistic			.083
Asymp. Sig. (2-tailed) <sup>c</sup>			.098
Monte Carlo Sig. (2-tailed) <sup>d</sup>	Sig.		.101
	99% Confidence Interval	Lower Bound	.093
		Upper Bound	.108

a. Test distribution is Normal.

b. Calculated from data.

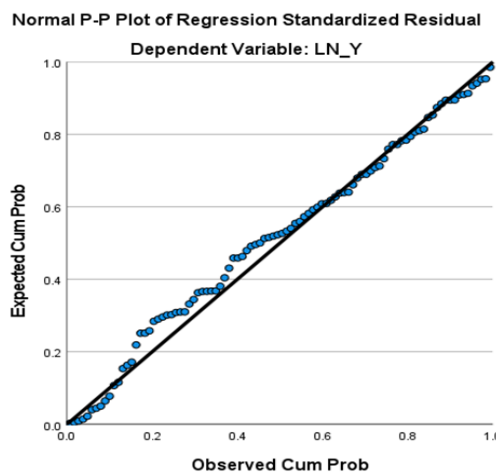
c. Lilliefors Significance Correction.

d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1502173562.

Source: Data Processing Results, 2024

Based on the table above, it can be seen that the Asymp Sig value is 0.098 which means it is greater than the significance value of 0.05 (5%). This shows that the data is normally distributed. To support the Kolmogorov Smirnov normality test, another normality test can be used, namely by looking at the Plot graph. This test is called the Normal P-P Plots Test. The results of this test can be found out by looking at the distribution of data on the Plot graph. If the data does not follow the direction of the diagonal line or far from the diagonal line, the assumption of normality is not fulfilled. If the data spreads following the direction of the diagonal line then the assumption of normality is fulfilled. The following P-P Plot graph is shown in this research:

**Figure 1** Grafik Normal P-P Plot of Regression Standardized Residual



Regression standardised residuals provide a distribution pattern that deviates from the pressure, which means that the data is normally distributed. Furthermore, on the Normal P-P Plot of regression standardised residuals graph, it can be seen that the points follow and approach the diagonal line, so it can be concluded that the regression model meets the assumption of normality.

### Multicollinearity Test

Multicollinearity is a situation where there is a very high multiple correlation, if one of the independent variables regresses on the other independent variables. This assumption test for multicollinearity is carried out by calculating the Variance Inflating Factor (VIF) value, if the VIF is less than 5 then it means that there is no multicollinearity, while in other references it is stated that the VIF value is less than 10.

**Table 3** Multicollinearity Test Results

Model		Correlations			Collinearity Statistics	
		Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)					
	X1	.107	.187	.177	.848	1.179
	X3	.111	.257	.247	.694	1.440
	LN_X2	-.197	-	-	.640	1.562

a. Dependent Variable: LN\_Y

a. Dependent Variable: LN\_Y

Source: Data Processing Results, 2024

In the table above, it is known that the Variance Inflation Factor (VIF) value of each independent variable is smaller than 5, namely the VIF value of the Eco-Efficiency variable is 1.179, Operating Activity is 1.440 and Environmental Accounting is 1.562 so it can be concluded that there is no multicollinearity.

**Autocorrelation Test**

This assumption autocorrelation test aims to find out whether in a linear regression model there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous). If there is a correlation, then it is called an autocorrelation problem. To detect autocorrelation, a statistical test can be carried out through the Durbin-Watson test (DW test), this has the basic problem that it is not known exactly about the distribution of the statistical variables themselves. Next is to compare with the DW table The DW table consists of two values, namely the lower limit (dl) and the upper limit (du) (Ghozali, 2018). Here are some decisions after comparing DW:

**Table 4** Autocorrelation Test Results

**Model Summary<sup>b</sup>**

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.139	4.947	3	92	.003	1.866

a. Predictors: (Constant), LN\_X2, X1, X3

b. Dependent Variable: LN\_Y

Source: Data Processing Results, 2024

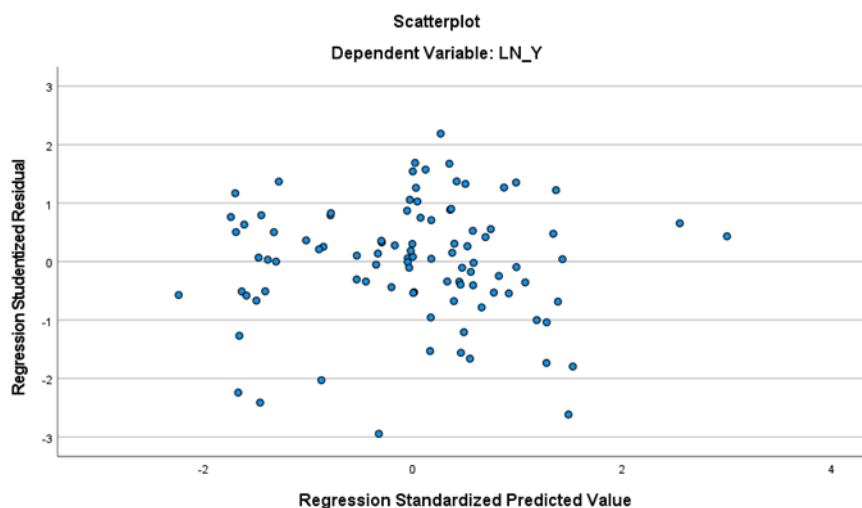
DW = 1.866  
dl = 1.603  
du = 1.732  
(4-dl) = 2.397  
(4-du) = 2.268

The results of the calculation above show that the DW value is 1.866. Furthermore, this value will be compared with the DW table with a significance of 5%, it is known that the number of data  $N = 96$  and the number of independent variables  $K = 3$  then obtained a du value (upper limit) of 1.732. The DW value of 1.866 is greater than the upper limit (du) of 1.732 and the DW value of 1.866 is less than  $(4 - du) 4 - 1.732 = 2.268$  so it can be concluded that there is no autocorrelation.

### Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance and residuals from one observation to another, if the variance of the residuals from one observation to another is fixed then it is called homoscedasticity and if it is different it is called heteroscedasticity. To detect at least heteroscedasticity in a data, it can be done by looking at the scatterplot graph in the SPSS output in the figure below.

Figure 2 Heteroscedasticity Test Results



Source: Data Processing Results, 2024

From the results of the scatterplot image output, it is obtained that the points spread below and above the Y axis, and do not have a regular pattern. So it can be concluded that the free variables at the top do not occur heteroscedasticity or hypersifathomoscedasticity.

### Multiple Linear Regression

Data analysis using multiple linear regression, where multiple linear regression is used to measure the effect of company characteristics on disclosure of sustainability reports (Empirical Study on Mining Companies listed on the Indonesia Stock Exchange) 2020-2023 using the SPSS program facility, can be seen in the table below:

**Table 3** Multiple Linear Regression Analysis Results

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

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	9.122	2.506	
	Eco-Efisien	2.060	.000	.192
	Operating Activities	-2.966	.828	-.433
	Environmental Accounting	6.176	.000	.296

a. Dependent Variable: ROA

Source: Data Processing Results, 2024

From the table above, it is found that the multiple linear regression equation is:

$$Y = a + b_1ECO + b_2AO + b_3AL + e$$

$$Y = 9,122 + 2,060 ECO -2,966 AO + 6,176 AL + e$$

Judging from the above equation, the size of the regression coefficient (B) of the variable Eco-Efficiency and Operating Activities has a negative regression coefficient and Environmental Accounting has a positive regression coefficient. So it can be explained that the coefficient with a positive value means that the change in the value of Environmental Accounting has an equal influence on Financial Performance, while the variable that has a negative coefficient means that the change in the value of Eco-Efficiency and Operations Activity will be inversely proportional to the value of Financial Performance or the size of the variable does not affect the size of the Return On Asset (ROA). The effect of each independent variable on the dependent variable can be explained as follows:

The constant value (a) of 9,122 states that if there is no increase in the variables of Eco-Efficiency, Operating Activities and Environmental Accounting, then the Financial Performance will remain at 9,122.

The regression coefficient of the Eco-Efficiency variable of 2.060 indicates that any change or increase in Eco-Efficiency by 1% will result in an increase or affect Financial Performance by 20.6%.

The regression coefficient of the Operating Activity variable is -2.966, indicating that any change or increase in Operating Activity by 1% does not affect the size of Financial Performance.

The regression coefficient of the Environmental Accounting variable is 6.176, indicating that any change or increase in Environmental Accounting by 1% will result in an increase or affect Financial Performance by 61.76%.

**Coefficient Of Determination**

This analysis is used to take into account how much the free variables can explain the dependent variable, then it is necessary to know the coefficient of determination or determination of R2 This R2 value ranges from 0-1, the closer to 1 the R2 value means that the greater the independent variable is able to explain the dependent variable. This analysis of the R-square (R2-) value is used to determine the extent to which the independent variable (X) can explain the relationship between changes in the dependent variable (Y). The properties of R-square are strongly influenced by many independent variables where the more independent variables the greater the R-square value.

**Table 4** Results of Coefficient of Determination Analysis

Model Summary <sup>b</sup>			
Model	R	R Square	Adjusted R Square
1	.373 <sup>a</sup>	.139	.111

a. Predictors: (Constant), LN\_X2, X1, X3

b. Dependent Variable: LN\_Y

Source: Data Processing Results, 2024

Source: Data Processing Results, 2024

The coefficient of determination R-squares is 0.111 or 11.1%. Eco-Efficient Variables, Operating Activities and Environmental Accounting can explain or influence the variable Return On Asset (ROA) while the remaining 88.9% (100% - 11.1%) is influenced by free variables that are not researched.

**Simultaneous Test (F Test)**

This test is conducted to find out whether or not the regression equation model used in this study is good. In the F Test, the regression coefficients of all dependent variables are tested simultaneously (simultaneously) so that it is known whether the resulting regression model can be used to make predictions or not.

**Table 5** F Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.359	3	6.786	4.947	.003 <sup>b</sup>
	Residual	126.191	92	1.372		
	Total	146.550	95			

a. Dependent Variable: ROA

b. Predictors: (Constant), AktivitasOperasi, ECO, AKUN LINGKUNGAN

Source: Data Processing Results, 2024

Based on the table above, it can be seen that the sig F is 0.003 < 0.05, meaning that there is a significant effect of Eco-Efficiency, Operations Activity and Environmental Accounting simultaneously on Return On Asset (ROA) in mining companies listed on the Indonesia Stock Exchange. The provisions for hypothesis testing are if sig F < α = 0.05, then Ho is accepted and Ha is rejected, otherwise if sig F > α = 0.05, then Ha is accepted and Ho is rejected.

**Partial Test (t test)**

The t test is conducted to find out the effect of the independent variables partially (individually) on the dependent variable. The t test is carried out with the determination of the t ≥ α = 0.05. The results of hypothesis testing using the t test can be seen in the table below:

**Table 6** Results of t-test

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	9.122	2.506		3.640	.000
	Eco-Efisien	2.060E-5	.000	.192	1.829	.071
	Operating Activities	-2.966	.828	-.433	-3.585	.001
	Environmental Accounting	6.176	.000	.296	2.552	.012

a. Dependent Variable: lnY

Source: Data Processing Results, 2024

Based on statistical analysis with the SPSS program in the table above, it is known that the sig t of the Eco-Efficiency variable is  $0.071 > \alpha = 0.05$ , so it can be concluded that there is no significant effect of Eco-Efficiency on Return On Asset (ROA) in mining companies listed on the Indonesia Stock Exchange. The provisions for hypothesis testing are if  $\text{sig } t > \alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, otherwise if  $\text{sig } t < \alpha = 0.05$ , then  $H_a$  is accepted and  $H_0$  is rejected. So from the results  $0.071 > \alpha = 0.05$  means  $H_0$  is accepted and  $H_a$  is rejected.

Sig t variable Operating Activity is  $0.001 < \alpha = 0.05$ , it can be concluded that there is a significant effect of Operating Activity on Return On Asset (ROA) in mining companies listed on the Indonesia Stock Exchange. The provisions for hypothesis testing are if  $\text{sig } t < \alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, otherwise if  $\text{sig } t > \alpha = 0.05$  then  $H_a$  is accepted and  $H_0$  is rejected. So from the result  $0.033 < \alpha = 0.05$   $H_0$  is rejected and  $H_a$  is accepted.

Sig t variable Environmental Accounting is  $0.012 < \alpha = 0.05$ , it can be concluded that there is a significant effect of Environmental Accounting on Return On Asset (ROA) in mining companies listed on the Indonesia Stock Exchange. The provisions of hypothesis testing are if  $\text{sig } t < \alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, otherwise if  $\text{sig } t > \alpha = 0.05$  then  $H_a$  is accepted and  $H_0$  is rejected. So from the results of  $0.000 < \alpha = 0.05$   $H_0$  is rejected and  $H_a$  is accepted.

## Discussion

### The Effect of Eco-Efficiency, Operating Activities and Environmental Accounting simultaneously on Financial Performance in mining companies listed on the Indonesia Stock Exchange.

The results of statistical testing show that the F Table 4.9 is  $0.003 < 0.05$ , meaning that there is a significant effect of Eco-efficiency, Operating Activities and Environmental Accounting simultaneously on Return On Asset (ROA) in mining companies listed on the Indonesia Stock Exchange. This supports the opinion of Sulasminingsih and Pancawati Hardiningsih (2022) which states that Eco-Efficiency, Operating Activities and Environmental Accounting have a simultaneous effect on Financial Performance.

Stakeholder theory has a very important relationship with financial reporting in terms of the

development of the company's financial performance. All stakeholders have parties to obtain information on business activities in a certain period that can be used to make decisions. Companies must be able to apply their obligations in a balanced manner between primary stakeholders and secondary stakeholders. If a company cannot create a balance between the two, then there will be a social conflict that occurs within it. Primary stakeholder is an organization that has a direct relationship with the business in achieving its goals. Meanwhile, secondary stakeholders are all organizations that can directly or indirectly have an impact on the policies, programs, and projects of the company but still have concern for the community and the environment.

The bigger a company is, the more it will be scrutinized by stakeholders. In such conditions, companies need greater efforts to gain stakeholder legitimacy in order to create harmony between the social values of their activities and the norms of behavior that exist in society. Therefore, the larger the company, the more interested it is in disclosing more information.

Companies that have high Eco-Efficiency tend to disclose more information because they want to show the public that the company has a concern for the environment that is efficient compared to other companies in the same industry. In addition, the company also wants to show investors that its operations are efficient. Through the presentation of Eco-Efficient Financial Performance, companies can convey information about the activities carried out by companies that affect social, community and environmental conditions.

The higher Cash Flow from Operating Activities is an indicator that determines whether the operations of the company can generate sufficient cash flow to repay loans, maintain the company's operating capabilities, pay dividends, and make new investments without relying on external funding sources. High profit reporting is also balanced by cost reductions, including costs for social and environmental reporting that are paid for by receipts from operating activities so that the financial performance looks good.

Environmental accounting is a modern post of social accounting as a form of social responsibility. Environmental accounting shows the cost of business inputs and processes, ensures the measurement of hidden costs and improves industry performance in the field of environmental management. Therefore, the information provided by the company must be able to show how the company is responsible for the economic resources provided by stakeholders. It is hoped that by publicizing the results of environmental accounting will function and mean for companies in fulfilling their responsibility and transparency to stakeholders, because stakeholders' decisions are very influential and meaningful for the certainty of evaluation of environmental conservation activities.

### **The Effect of Eco-Efficiency on Financial Performance in mining companies listed on the Indonesia Stock Exchange.**

The results of statistical testing show that the t table 4.10 variable Eco-Efficiency is  $0.071 > \alpha = 0.05$ , so it can be concluded that there is no significant effect of Eco-Efficiency on Financial Performance in mining companies listed on the Indonesia Stock Exchange. The provisions for hypothesis testing are if  $\text{sig } t < \alpha = 0.05$ . This supports the opinion of Sulasminingsih and Pancawati Hardiningsih (2022) which states that Eco-Efficiency has no effect on Financial Performance.

Environmental costs are the expenditures made by businesses to reduce environmental damage caused by their operations and prevent the risk of poor environmental quality. The company tries to show its environmental responsibility by presenting environmental data. And

because the funds spent help build the company's reputation, it is expected to be a long-term investment company. If the community development program is publicized, it can enhance its reputation, which affects its ability to gain a competitive advantage and can be used as a tactic to increase sales turnover.

The higher environmental costs indicate that the company is classified as a company that is concerned about the environment as well as the impact related to the company's production activities. And vice versa, the lower the environmental bias or the absence of environmental bias reports indicates that the company is classified as a company that cares less about its surrounding environment. The greater the environmental bias of a company, the less favorable it will be to stakeholders. In such conditions, companies need greater efforts to gain stakeholder legitimacy in order to create harmony between the social values of their activities and the norms of behavior that exist in society. Therefore, the greater the environmental bias of a company, the more interested it will be in disclosing more information. The application of environmental bias in financial reports can be seen as a form of concern for the surrounding community due to the impact of company activities and is also part of the measure of the concern of company management in carrying out effective financial reporting so that it will have an impact on creating interest for investors in investing (Sumarni, 2022).

The lack of effect of eco-efficiency on financial performance is due to the fact that companies view this environmental bias as an additional bias. Companies, however, believe that environmental expenditures will only be a cost of reducing profits for business. Meanwhile, the sharing of environmental management costs shows the firmness of the company in protecting the environment and helping to win the hearts of the community (Susilo & Ria, 2022). Because of these reasons, it is possible that management prefers to delay in making the budget in the company's environmental expenditure element. This proves that the application of eco-efficiency has not been able to run effectively in supporting financial performance results.

### **The Effect of Operating Activities on Financial Performance in mining companies listed on the Indonesia Stock Exchange.**

The statistical test results show that the Sig t Table 4.10 variable Operating Activity is  $0.001 < \alpha = 0.05$ , it can be concluded that there is a significant effect of Operating Activity on Financial Performance in mining companies listed on the Indonesia Stock Exchange. This supports the opinion of Sulasminingsih and Pancawati Hardiningsih (2022) which states that Operating Activity has an effect on Financial Performance.

Operating activities are the main income generators of the company (principal revenue producing activities) and other activities that are not investment activities and financing activities. The amount of cash flow derived from operating activities is an indicator that determines whether from operations the company can generate enough cash flow to pay off loans, maintain the company's operating capabilities, pay dividends and make new investments without relying on outside funding sources. companies that are able to generate cash can be sufficient internally from the company's operating activities to pay off their obligations without having to borrow from outside parties. Investors can assess whether the funds invested have been managed properly by management. The higher the operating cash flow of the company, the higher the investor's trust in the company.

The role of Operating Activities is a benchmark by which the company can effectively manage the flow (revenue) so that the company can run as it should so that stakeholders see the company as a healthy company. Companies that have operated to meet the needs and improve the welfare of stakeholders can run well because the company will have the support of internal and external stakeholders. So that stakeholders will give appreciation to the company's performance which in turn will increase the company's value.

The effect of the Operating Activity variable tested on Financial Performance is due to the efficiency and effectiveness of operating cash flow management which makes operating cash flow surplus, thus encouraging financial performance to be better.

### **The Effect of Environmental Accounting on Financial Performance in mining companies listed on the Indonesia Stock Exchange.**

The statistical test results show that the Sig t Table 4.10 of the leverage variable (DER) is  $0.012 < \alpha = 0.05$ , so it can be concluded that there is a significant effect of Environmental Accounting on Financial Performance in mining companies listed on the Indonesia Stock Exchange. This supports the opinion of Tamaroh (2023) which states that Environmental Accounting has an effect on financial performance, and this research contradicts the research conducted by Sulasminingsih and Pancawati Hardiningsih (2022) which became the basis for the research, Sulasminingsih and Pancawati Hardiningsih (2022) stated that Environmental Accounting has no significant effect on Financial Performance.

Companies that apply environmental accounting will certainly incur costs used to support the application of environmental accounting which is usually called environmental costs. Environmental costs are costs incurred as a result of business activities in managing and overcoming environmental problems. Based on stakeholder theory, social and environmental disclosure is done in the context of the company's responsibility to stakeholders to maintain their support and also to meet their information needs. In addition, social and environmental disclosure can also be used as a medium of communication with stakeholders, who want to gain confidence about how profits are generated by the company. This information is especially important for stakeholders other than investors and creditors who are usually motivated by economic or financial interests.

The more the application of environmental costs in the company will certainly affect the costs that will be incurred as a result of the application of environmental costs. As a result of the environmental costs incurred from the application of environmental costs, it will affect the expenses incurred by the company so that in the end it will have an impact on the company's profit which is one of the indicators in measuring the company's financial performance which will be used as a consideration for stakeholders in making decisions.

The effect of environmental accounting on financial performance is because by disclosing environmental accounting the company will get several benefits, improving the company's image which is not only penetrating financial performance as the main strategy. The findings of this study also correlate with Tamaroh (2023) which states that environmental influences have a significant positive effect on financial work. by carrying out transparency principles to improve the reputation and value of the company which has an impact on the trust of consumers and society so that it impacts on the company's lab which reflects financial performance.

## Conclusion

Based on the research data that has been processed and analyzed, the following conclusions can be drawn:

1. There is a significant effect of Eco-Efficiency, Operating Activities and Environmental Accounting simultaneously on Financial Performance in mining companies listed on the Indonesia Stock Exchange.
2. There is no significant effect of Eco-Efficiency on Financial Performance in mining companies listed on the Indonesia Stock Exchange.
3. There is a significant effect of Operating Activities on Financial Performance in mining companies listed on the Indonesia Stock Exchange.
4. There is a significant effect of Environmental Accounting on Financial Performance in mining companies listed on the Indonesia Stock Exchange.

## References

- Asniwati, 2020. Pengaruh Rasio Likuiditas, Solvabilitas, Profitabilitas terhadap Kinerja Keuangan pada PT. Midi Utama Indonesia Tbk yang Terdaftar di Bursa Efek Indonesia. *Jurnal Economix* 1(8).
- Burhany, D. I. (2020). Pengaruh implementasi akuntansi lingkungan terhadap kinerja lingkungan dan pengungkapan informasi lingkungan (Studi pada perusahaan pertambangan umum yang mengikuti proper periode 2008-2009). *Indonesian Journal of Economics and Business*, 1(2), 257–270.
- Camilia, I. (2020). Pengaruh kinerja lingkungan dan biaya lingkungan terhadap kinerja keuangan perusahaan manufaktur. *STIE Perbanas Surabaya*.
- Fadliansyah, M. E. 2020. Laba Perusahaan Properti Anjlok hingga 60%, Bagaimana di Semester II?. <https://katadata.co.id/happyfajrian/finansial/5f342f918d36a/1-laba-perusahaan-properti-anjlok-hingga-60-bagaimana-di-semester-ii>. Diakses tanggal 27 Desember 2023.
- Fuadah, L. L., Daud, R., & Burhanuddin, B. (2020). Akuntansi manajemen lingkungan di Indonesia. *Forum Bisnis Dan Kewirausahaan*, 9(2), 132–139.
- Haryanto, S., Rahadian, N., Mbapa, M. F. I., Rahayu, E. N., & Febriyanti, K. V. (2022). Kebijakan Hutang, Ukuran Perusahaan dan Kinerja Keuangan Terhadap Nilai Perusahaan: Industri Perbankan di Indonesia. *AFRE (Accounting and Financial Review)*, 1 (2). *Financial Review*, 1(2), 62-70.
- Hirsbrunner, S. D. (2024). Computational methods for climate change frame analysis: Techniques, critiques, and cautious ways forward. *Wiley Interdisciplinary Reviews: Climate Change*. <https://doi.org/10.1002/wcc.902>
- Kholida, N., & Susilo, D. E. (2020). Pengaruh Corporate Social Responsibility Terhadap Nilai Perusahaan Dengan Profitabilitas Sebagai Variabel Moderasi (Studi Empiris Pada Perusahaan Sektor Pertambangan Batubara yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2017-2019). *Seminar Nasional Ekonomi & Bisnis Dewanatara*, 79–88.
- Meiyana, A., & Aisyah, M. N. (2019). Pengaruh kinerja lingkungan, biaya lingkungan, dan ukuran perusahaan terhadap kinerja keuangan dengan corporate social responsibility

- sebagai variabel intervening. *Nominal: Barometer Riset Akuntansi Dan Manajemen*, 8(1), 1–18.
- Mumtazah, F., & Purwanto, A. (2020). Analisis Pengaruh Kinerja Keuangan dan Pengungkapan Lingkungan Terhadap Nilai Perusahaan. *Diponegoro Journal Of Accounting*, 9(2), 1–11.
- Novi Artikasari Wulandari 2020. “Pengaruh Pendapatan Asli Daerah, Belanja Modal Pada Pemerintah Kabupaten/Kota di Provinsi Kalimantan Barat”. *Jurnal Ekonomi*. Vol.4 No.1, ISSN 2302-7169.
- Omofoyewa, M. G. (2023). Exergy, Exergy-Economics and Pinch Analyses of Butadiene Production Process from Sweet Sorghum. *Society of Petroleum Engineers - SPE Nigeria Annual International Conference and Exhibition, NAIC 2023*. <https://doi.org/10.2118/217141-MS>
- Ovseychuk, V. A. (2023). Improvement of mathematical models of economics for uranium resource appraisal. *Gornyi Zhurnal*, 2023(7), 37–40. <https://doi.org/10.17580/gzh.2023.07.05>
- Riyanto, A., Raspati, G., Rahayu, Y., & Sopian, Y. (2021). Implikasi arus kas aktivitas operasi terhadap kinerja keuangan. *Moneter-Jurnal Akuntansi Dan Keuangan*, 8(1), 79–84.
- Sari, Ciesha Delvira. dan Yuliasuti Rahayu. 2020. Pengaruh Likuiditas, Leverage, Ukuran Perusahaan dan Komisaris Independen Terhadap Agresivitas Pajak. *Jurnal Ilmu Dan Riset Akuntansi : Volume 9, Nomor 2, Februari 2020*.
- Syakhiya, N. (2020). Pengaruh rasio aktivitas terhadap kinerja keuangan pada perusahaan food and beverages yang terdaftar di Bursa Efek Indonesia (BEI). *Jurnal Ilmiah Manajemen Dan Bisnis (Jimbi)*, 1(2), 106–111.
- Wardaya, F. X. S. (2020). Pengaruh asset growth, arus kas operasi, kepemilikan institusional dan ukuran perusahaan terhadap kinerja keuangan perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia periode 2014 – 2017. *Media Akuntansi*, 32(01), 15.
- Yuanasti, R. T. (2022). Pengaruh pengungkapan akuntansi lingkungan, komisaris independen, likuiditas, leverage, dan ukuran perusahaan terhadap kinerja keuangan. *Abstract of Undergraduate Research, Faculty of Economics, Bung Hatta University*, 20(1).
- Pezoulas, V. C. (2024). Synthetic data generation methods in healthcare: A review on open-source tools and methods. *Computational and Structural Biotechnology Journal*, 23, 2892–2910. <https://doi.org/10.1016/j.csbj.2024.07.005>
- Wei, Y. (2024). Examining the relationship between international digital trade, green technology innovation and environmental sustainability in top emerging economics. *Heliyon*, 10(7). <https://doi.org/10.1016/j.heliyon.2024.e28210>