



The Effect of the Implementation of Environmental Accounting on Profitability in Mining Sector Companies Listed on the Efek Indonesia Exchange

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Received : November 14, 2023

Accepted : January 9, 2024

Published : January 31, 2024

Citation: Rejeki, D., Nurlatifah, S. (2024). The Effect of the Implementation of Environmental Accounting on Profitability in Mining Sector Companies Listed on the Efek Indonesia Exchange. *Ijomata International Journal of Tax and Accounting*, 5(1), 202-220. <https://doi.org/10.52728/ijtc.v5i1.1045>

ABSTRACT : Mining sector companies have an important role for the country, because the contribution given is very significant and affects economic growth in Indonesia. This mining sector company has an impact on the continuous use of natural resources, even though the available natural resources are very limited to meet human needs and take a long time to renew. Based on the development of profitability of mining sector companies in Indonesia for four years, from 2019-2022 there was a decrease in profitability in 2019-2020. This decrease was caused by several factors, including the COVID-19 pandemic, contract delays and cancellations, the company's awareness of environmental activities decreased resulting in a decrease in company awareness of social and environmental which included environmental costs, environmental disclosure, and environmental performance. The reason of this observe is to prove the impact of the implementation of green environmental costs, environmental disclosure, and environmental performance on profitability in mining sector companies listed on the company's Indonesia Stock Exchange as well as the Indonesia Stock Exchange. The approach used is a quantitative technique using secondary statistics in the shape of reports and annual reports on mining area corporations indexed on the Indonesia Stock Exchange (IDX) the duration of 2019-2022 as many as 32 samples. The data analysis techniques used are descriptive statistical tests and multiple linear regression tests. The outcomes of this observe prove that partly environmental costs have a negative and significant impact on profitability, environmental disclosure has no impact on profitability, environmental performance has a positive have an effect on profitability. Simultaneously, environmental expenses, environmental disclosure, and environmental overall performance concurrently or collectively have an significant impact on profitability.

Keywords: Environmental Cost, Environmental Disclosure, Environmental Performance and Profitability



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INTRODUCTION

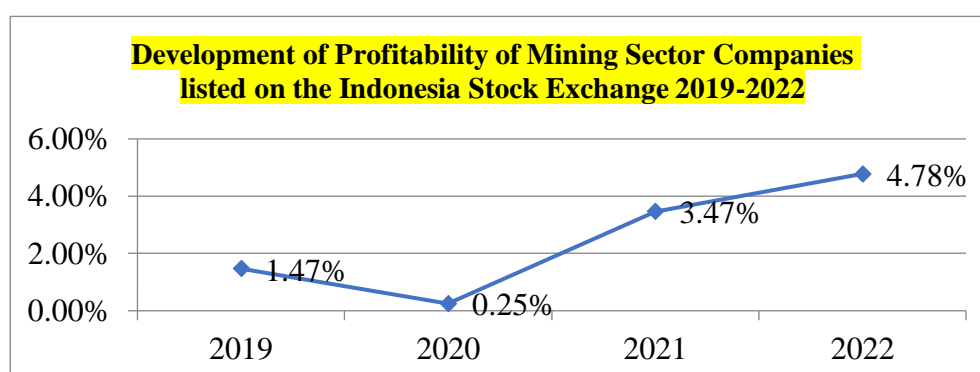
The increase in the number of companies established in Indonesia shows that the economy is getting more advanced and stronger. The primary goal of starting a enterprise is to turn a profit. Because by making a profit, most of the companies can survive and develop so that they can achieve their goals (Rejeki Dewi, 2023). In the general public, the growth of enterprises is often associated with the process of increasing production and wages in economic activity. It cannot be separated from the community around which the company stands. The Firm activities are expected not only to think about maximizing its profitability but to improve the surrounding environment that supports the company's activities (Tisna et al., 2020b). In the industrial era 4.0, the company's demands not only focus on owners and management, but all parties such as consumers, employees, society & the environment. Thoughts based on companies, related to the interests of several parties such as the environment, this is because environmental aspects have benefits for the surrounding community and have benefits for the company in the long run (Dwicahyanti & Priono, 2021).

There are many companies in the capital market in Indonesia with various area, one of which is a branch of mining. The mining sector has an important role for the country, because the contribution made by the mining sector is very significant and affects economic growth in Indonesia. Mining sector companies produce natural resources such as metal minerals, fuel management and rocks. Simply put, mining sector companies carry out natural resource management activities. Quoted on the page (Katadata, 2021) since 2000, every quarter the Central Statistics Agency (BPS) records growth in mining sector companies. The mining and quarrying sector grew by 7.78% from year to year and the third quarter of 2021, the highest level since 1995.

This mining sector company has an impact on the continuous use of natural resources, even though the available natural resources are very limited to meet human needs and take a long time to renew. The company will implement a variety of different strategies to maximize the profit results obtained. This can be illustrated by the movement of profitability of mining area corporations in 2019-2022 in Indonesia. The following is a graphic image and average profitability, as measured via return on assets:

Illustration -1

Development of Profitability of Mining Sector Companies listed on the Indonesia Stock Exchange 2019 - 2022



Source: Data processed by researchers, 2023

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Founded on the data in Illustration 1, it shows that profitability in 2019 was 1.47%, in 2020 profitability decreased by 0.25%, in 2021 it increased by 3.47% and in 2022 it experienced a rapid increase of 4.78%. It be able to explained that the development of profitability of mining sector companies in Indonesia for four years has decreased in 2019-2020. This could be visible from the ratio cost that has declined in 2019-2020. The decline in profitability in 2019-2020 become caused by the Covid-19 pandemic, settlement delays and cancellations, the employer's awareness of environmental activities decreased resulting in a lower in the organisation's consciousness of social and environment.

Another factor that affects the decline in profitability, namely environmental factors, during the COVID-19 pandemic environmental factors also decreased. These environmental factors include environmental costs, environmental disclosures, and environmental performance. Environmental costs decrease because the enterprise's operating doings are limited so as to the profits obtained by the company decrease and environmental costs incurred decrease ([Damayanti, SE., M.Si. & Widjowati, 2022](#)). The decrease in environmental disclosures is because companies only disclose voluntary and incomplete environmental disclosures so that contributions made by companies are not visible to the public and investors ([Ningtyas & Triyanto, 2019](#)). Meanwhile, environmental performance decreases because operational activities are limited so that it affects the company's environmental activities and causes environmental performance to decrease ([Lestari et al., 2020](#)). As stated by the Director General of Environmental Pollution and Damage Control of the Ministry of Environment and Forestry (KLHK), Sigit Reliantoro who expressed his disappointment with several companies in Indonesia that put aside ethics in doing companies in order to reap more profits in the midst of a pandemic and not a few companies that made the Covid-19 pandemic as an excuse for not implementing their commitments in carrying out their social responsibility.

Companies that care about environmental problems have a tendency to enhance long-term financial performance, because by being environmentally responsible, the company will be valued by stakeholders and improve the company's image. consequently, Environmental Accounting present as one of the answers to clear up environmental sustainability issues. So that companies do not carelessly use natural resources without caring about future impacts ([W Sri et al., 2018](#)).

According to ([Sari & Wahyuningtyas, 2016](#)) Environmental accounting is a new accounting mechanism that focuses on data collection, analysis, and reporting for social and environmental items and transactions rather than financial objects and transactions. According to Vol 2 (No 1). PSAK Number 33 of 2011, environmental accounting is a strategy for managing and disclosing environmental responsibility in manufacturing companies. The purpose of implementing environmental accounting is one of the most effective ways for businesses to meet public demand. The point of interest of most of the people is not only on the corporation's financial performance however on environmental factors. In addition, the Implementation of environmental accounting is a favorable factor for both investors and potential investors. As a result, businesses are no longer limited to reaping the benefits of their investments while also taking steps to mitigate risks associated with the company's operational strategy.

In this study, environmental accounting has Three disclosures i.e. environmental costs, environmental disclosure and environmental performance. According to ([Zainab & Burhany, 2020](#)) Environmental costs can also be defined as expenses incurred due to terrible environmental quality

or as expenses that can arise, and consist of expenses associated with activities such as detection and investigation of environmental damage, detection and monitoring of the environment, monitoring and treatment of waste. While according to [\(Ningtyas & Triyanto, 2019\)](#) Environmental disclosure is a shape of corporate social responsibility to fulfill the activities carried out by the company in fulfilling its social responsibilities in the form of true and complete disclosure reports in accordance with applicable disclosure standards, namely the Global Reporting Initiative (GRI) Standard.

In addition, environmental performance is also one way to increase profitability. According to [\(Lako, 2018\)](#), environmental performance is the corporation's performance so that the environment is more useful to prevent environmental damage. Environmental overall performance is guided by means of the quantity of environmental damage resulting from enterprise activities. If the level of environmental productivity increases, there will be a slight increase in damage. Lack of attention to the environment can lead to serious problems. Even though companies that establish their businesses around residents' residences have made agreements with the community to carry out their activities based on applicable norms and rules. If this is violated, then the company can lose the trust of the community.

Therefore, the government through the Ministry of environment and Forestry established the enterprise performance score evaluation application in Environmental management (PROPER) to prosperous the corporation's role in preserving the environment. The outcomes of the PROPER assessment might be announced regularly in the corporation's annual report so that it can be seen by the public. With the help of this assessment, the general public can easily understand the extent of environmental control association finished through the corporation (Lako, 2018). Based at the history that has been defined, the reason of the trouble on this study is to empirically show the effect of The Implementation of Environmental fees, Environmental Disclosure and Environmental overall performance on Profitability in Mining sector agencies indexed on the Indonesia inventory trade 2019-2022 each partly and simultaneously.

Environmental Accounting

Environmental accounting as the method of identifying, measuring cost, recording, summarizing, reporting and disclosing data about items, transactions, activities or the effect of economic, social and environmental activities of the enterprise on society, the environment and the enterprise itself in reporting accounting information so one can offer relevant information for users of accounting information in the decision-making process. There are three (3) unique qualitative characteristics of green accounting information which are very beneficial in comparing choice-making checks for customers, specifically: (1) accountability; (2) integrated and comprehensive; and (three) obvious [\(Lako, 2018\)](#).

According to (Ikhsan, 2008a) Environmental management accounting is the method of identifying, accumulating, estimating, analyzing, reporting, and transmitting data approximately (1) information primarily based on material and energy flows, (2) records primarily based on environmental expenses, (3) different measurable statistics for decision making for the corporation. Environmental management accounting is the method of identifying, accumulating, estimating, analyzing, reporting, and transmitting data approximately (1) information primarily

based on material and energy flows, (2) records primarily based on environmental expenses, (3) different measurable statistics for decision making for the corporation. According to ([Hansen & Mowen, 2014](#)), Environmental management accounting is basically a combination of information from financial accounting and cost accounting to improve efficiency, reduce environmental impact and risk and reduce environmental protection costs.

Implementation Environmental Accounting What the corporation does is an attempt from the corporation to satisfy the wishes of stakeholders, due to the fact the focus of stakeholders isn't always only from the corporation's financial factors, however also related to the corporation's environmental factors, whether or not the enterprise will pay interest to the environmental effect of the corporation's operational activities. ([Damayanti & Widyowati, 2022](#)). A enterprise is stated to play a position in protecting the environment if the organisation can pay interest to the environment itself. The shape of corporate duty towards the environment is through environmental care, environmental involvement, environmental reviews and environmental audits.

Environmental Costs

Information environmental expenses consistent with ([Hansen & Mowen, 2014](#)) are those expenses incurred because of bad high-quality or negative environmental nice which can arise. So, environmental expenses relate to the introduction, detection, repair, and prevention of environmental degradation. at the same time as the environmental expenses according to ([Zainab & Burhany, 2020](#)) states the costs associated with the possibility or presence of poor quality in an unfavorable surrounding environment.

Results of previous research conducted by ([Damayanti, SE., M.Si. & Widyowati, 2022](#)) states that the better the environmental costs incurred through the corporation will depend on the corporation profitability. Environmental costs are costs incurred by companies to fulfill their corporate social and environmental responsibilities. Environmental expenses are used to prevent or repair environmental damage because of the company's operational activities. That is supported by way of other studies performed by using ([Sholikin & Setiawan, 2018](#)) and ([Tisna et al., 2020b](#)) which states that environmental costs affect profitability. But it is one of a kind from the studies performed via ([Lestari & Wangi, 2020](#))([Asjuwita & Agustin, 2020](#)) which states that environmental costs have no impact on profitability.

Environmental Disclosure

Understanding Environmental Disclosure According to ([Suhardjanto and Miranti 2009](#)) in ([Sulistiawati & Dirgantari, 2017a](#)) It is a form a form of corporate social responsibility through environmental disclosure within the annual report wherein the network can screen the activities finished by using the company in satisfying its social responsibility voluntarily.

Environmental disclosure has been stated in the applicable law number 47 of 2012 regarding Responsibility and Environment of restricted liability organizations in Article 6 which states that the implementation of social and environmental responsibility is disclosed inside the corporation's annual report and sustainability report and accounted for inside the popular General Meeting of Shareholders (GMS). Environmental disclosure aims to be an intermediary medium for the world

of companies, the general public, and investors which is then established as a guiding principle in articulating points of view from both economic, social, and political fields ([Ikhsan, 2008b](#)).

Research results by ([Ningtyas & Triyanto, 2019](#)) shows that environmental disclosures affect profitability and the studies is in line with studies carried out with the aid of ([Wijayanti, 2021](#)). According to ([Haninun et al., 2018](#)), environmental disclosure has an effect on profitability. But it is different from the research conducted by ([Damayanti, SE., M.Si. & Widyowati, 2022](#)) and ([Lestari et al., 2019](#)), which states that environmental disclosures have no effect on profitability.

Environmental Performance

Understanding environmental performance according to ([Ningtyas & Triyanto, 2019](#)), is a mechanism for the company or company performance in creating and integrating an excellent environment and maintaining the environment. Based on the opinions of experts ([Sulistiawati & Dirgantari, 2017b](#)) and ([Lestari et al., 2019](#)) Stating environmental overall performance is the corporation's overall performance in keeping the sustainability of the corporation's environment due to damage caused by the company itself.

The company has a responsibility and concern for the environment by being attentive to the environment. The company must have good environmental performance, as an effort to worship companies that are environmentally friendly or care about the environment. So that it can increase the trust of the general public and traders in the corporation. If the environment around the company is healthy, then its productivity will also increase. Alternatively, a company's performance may be characterized as subpar if it fails to adequately explore or understand its environment. Today, many important organizations are working to raise awareness of the environmental crisis, so businesses must continue to monitor and protect ecosystems around them.

From the definition above it is able to be concluded that environmental overall performance is an effort made by the corporation in protecting the surrounding surroundings because of corporation activities. When the company carries out activities, the process of activities carried out through the corporation can have a positive and negative impact. The problem that often occurs is the physical impact caused by the company on the environment, for example water pollution, air, and biodiversity destruction. So that damage due to the corporation's operational activities will cause the company to be seen as having poor environmental performance.

The outcomes of studies conducted by ([Lestari et al., 2020](#)), ([Rajak, 2022](#)), ([Wati et al., 2021](#)) and ([Ningtyas & Triyanto, 2019](#)), stating that environmental performance has an impact on profitability. However it isn't consistent with studies by ([Asjuwita & Agustin, 2020](#)), ([Olivia et al., 2022](#)) and ([Damayanti, SE., M.Si. & Widyowati, 2022](#)), which states that environmental overall performance has no impact on profitability.

The purpose of establishing the company is to meet human needs for products and maintain the company's existence, by improving all company activities and optimizing those obtained through increasing product sales and minimizing operational costs. This can be measured using the profitability ratio ([Yuni, 2022](#)). According to ([Kasmir, 2010](#)), profitability is used to evaluate a corporation's capability to seek income and also presents a degree of the extent of effectiveness of the control of an corporation. This is indicated by using the earnings generated from income and

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investment earnings. the lowest line is that profitability indicates the efficiency of the corporation. Profitability is a corporation's potential to make a earnings.

([Ramdhonah et al., 2019](#)), profitability is one of the essential factors of the corporation, because further to presenting excellent appeal for investors who will invest their finances in the corporation additionally as a degree of the effectiveness and efficiency of the use of all assets inside the corporation's operational strategies. According to ([Kasmir, 2010](#)), the profitability ratio is a ratio to evaluate the corporation's potential to are looking for earnings. This ratio also affords a degree of the extent of control effectiveness of an corporation. This ratio also offers a measure of the extent of control effectiveness of an enterprise. That is indicated by means of the income generated from sales and funding earnings. In essence, using this ratio shows the efficiency of the corporation. it can be concluded that profitability is the corporation's overall performance on the effectiveness and performance of the use of enterprise finances to get profits and estimating how much the company's performance to get these profits. According to ([Kasmir, 2010](#)) Profitability is a ratio to assess a employer's capacity to make a income.. This ratio additionally provides a degree of the level of control effectiveness in the company. this is indicated by the earnings generated from sales and investment income in a length.

Table-1
Research Sample Criteria

No	Research Sample Criteria	Number of Companies
1	Number of mining sector companies on the Indonesia Stock Exchange in 2019-2022	49
2	Who does not meet the criteria:	
3	Mining sector companies that do not publish complete financial statements and annual reports each year end as of December 31, 2019-2022	(12)
4	Mining sector companies that do not report financial statements in Rupiah during the 2019-2022 period	(13)
5	Mining sector companies that did not participate in PROPER during the 2019-2022 period	(5)
6	Mining sector companies that do not disclose environmental costs 2019-2022	(4)
6	Loss-making mining sector companies	(5)
7	Number of Issuers (2019-2022 Period)	8
8	Number of Samples (x4 years)	32

Source: Data processed by Researchers, 2023

METHOD

The studies was performed by using taking secondary information in the shape of financial statements and annual reports on mining area corporations indexed at the Indonesia stock exchange (IDX) for the duration of the 2019-2022 duration via the reputable website of the Indonesia Efek exchange, www.idx.co.id. This study uses quantitative methods to obtain empirical evidence of factors that affect profitability with the variables used, specifically independent variables and dependent variables. In this study using 3 (three) independent variables, specifically environmental costs, environmental disclosure and environmental performance; and the dependent variable is profitability.

Population and Research Sample

The population used on this observe is mining corporations indexed at the Indonesia stock exchange (IDX) for the 2019-2022 duration with a population of 49 corporations. wherein the statistics used in this take a look at are secondary records within the form of annual reviews and sustainability reviews received from the reputable website of the Indonesia stock exchange (IDX) www.idx.co.id and the professional website of mining corporations in Indonesia.

The sampel sampling method the use of the Purposive Sampling technique was obtained as shown in table-1 below, where the results are obtained A total of 8 (eight) mining sector companies with a total of 32 samples that can be processed. The following is a table of research sample criteria:

Data Analysis Techniques

The information analysis used in this study is descriptive statistical evaluation that's a statistics analysis technique with the aim of providing an overview to describe research variables ranging from minimum value, maximum value, mean value and standard deviation (Hastuti & Ghozali, 2019). After conducting descriptive statistical analysis, the next stage that needs to be done is the Classical Assumption take a look at in the shape Normality Test, Multicollinearity Test, Heterokedasticity Test and Autocorrelation Test. If the results are normally distributed, then Multiple Linear Regression Analysis and Model Feasibility Test are carried out, namely the Coefficient of Determination Partial Regression Coefficient Test (T Test) and Simultaneous Regression Coefficient Test (F Test). R^2)

RESULTS AND DISCUSSION

Overview of the Research Object

The object of this study is 8 (eight) mining sector companies with a total of 32 samples listed on the Indonesia Stock Exchange (IDX) in the 2019-2022 period. The financial statements used are annual reports and sustainability reports of mining sector companies published on the Indonesia Stock Exchange The names of mining sector companies can be seen in the table as follows:

Table 2
List of Mining Sector Companies listed on the Indonesia Stock Exchange that are Research Samples

NO	COMPANY CODE	COMPANY NAME
1	ALKA	Alaska Industindo Tbk
2	ANTM	Aneka Tambang Tbk
3	FEELING	Cita Investindo Tbk
4	IFSH	Ifishdeco Tbk
5	INTP	Indocement Tunggal Prakarsa Tbk
6	PTBA	Bukit Asam Tbk
7	SMCB	Solusi Bangun Indonesia Tbk
8	SMMT	Golden Eagle Energy Tbk

Data Analysis Techniques

The data analysis technique used in this study is multiple linear regression analysis technique, which is a data analysis technique used to examine the influence of independent variables on dependent variables partially or simultaneously. Multiple linear regression analysis was performed using the SPSS for Windows program version 26.0.

The steps of data analysis of this study are as follows: (1) Descriptive statistical test (2) Conducting classical assumption tests consisting of normality tests, multicollinearity tests, heteroscedasticity tests, and data autocorrelation tests. The classical assumption test aims to ensure that the research data are eligible for multiple linear regression analysis. (3) Compiling multiple linear regression equations based on the results of data analysis including model feasibility tests (F tests) to test whether the regression model used is feasible or not and partial significance tests (t tests) to test whether the independent variable has a significant effect on the dependent variable. The t-test is also performed using a significance level of 5% or 0.05. If the probability value (sig.) is less than the level of significance, then the independent variable has a significant effect on the dependent variable described in the discussion.

Descriptive Statistical Test Results

Descriptive statistical assessments in this study obtained effects based on table-1 as follows:

Table-3
Descriptive Statistical Results

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
Environmental Costs	32	.0009	1.6437	.111206	.2975794

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Environmental Disclosure	32	.0667	.6667	.353125	.1714078
Environmental Performance	32	2	5	3.22	.975
Profitability	32	.0028	.3926	.096172	.1061119
Valid N (listwise)	32				

Source: Data processed by Researchers, 2023

From the outcomes of descriptive statistics on independent variable (X1), namely environmental costs calculated by the environmental cost index have a minimum value of 0.0009, then a maximum value of 1.6437, an average value (mean) of 0.111206, and a standard deviation value of 0.2975794.

From the outcomes of descriptive statistics on the independent variable (X2), namely environmental disclosure calculated using the Corporate Social Responsibility Disclosure Index (CSRDI) shows a minimum value of 0.0667, a maximum value of 0.6667, an average value (*mean*) 0,35125 and a standard deviation value of 0.1714078.

From the outcomes of descriptive statistical tests on independent variables (X3), namely environmental performance calculated using the Company Performance Rating Assessment Program in Environmental Management (PROPER) from the entire sample of mining sector companies, none received a black PROPER rating. Companies that have a minimum value of 2 (red PROPER rating category) are PT Alaksa Industrindo Tbk, PT Cita Investindo Tbk, PT Ifishdeco Tbk for the 2019-2022 period. Then the maximum value of 5 (gold PROPER rank category) is PT Bukit Asam Tbk in 2019, 2021, and 2022. For the mean value of 3.22, and the standard deviation value of 0.975.

From the outcomes of descriptive statistics on the dependent variable (Y), namely profitability calculated using return on assets (ROA) shows a minimum value of 0.0028, a maximum value of 0.3926, an average value (mean) of 0.096172, and a standard deviation value of 0.1061119.

Classical Assumption Test Results

1. Normality Test Results

The normality test in this study obtained results based on table-4 as follows:

Table 4
Normality Test Results

Kolmogorov-Smirnov test one sample		
		Non-Standardized Residuals
N		32
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviations	.95007834
The Most Extreme Differences	Absolute	.146
	Positive	.109

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	Negative	-.146
Statistical Test		.146
Asim. Sig. (2-tailed)		.083c

Source: Data processed by Researchers, 2023

Based on the results of the *t* test in the table above, it can be known that the value of *Asymp. Sig. (2-tailed)* is $0.083 \geq 0.05$. So, it can be concluded that the test results show normal distributed data.

2. Heterokedasticity Test Results

The heterokedasticity test in this study obtained results based on table-5 as follows:

Table 5
Heterokedasticity Test Results

Coefficient		Non-standardized coefficients		Standard Coefficient	t	Sig.
Pattern		B	Error Std.	Beta		
1	(Constant)	.356	.724		.492	.627
	Environmental Cost (X ₁)	.041	.053	.140	.760	.453
	Environmental Disclosure (X ₂)	-.271	.217	-.342	-	.222
	Environmental Performance (X ₃)	.252	.399	.170	.632	.533

Source: Data processed by Researchers, 2023

Based on the table above, the results of *sig value* of $0.453 \geq 0.05$ were obtained. Then the results for the variable X₂ are known *sig values* of $0.222 \geq 0.05$. And the results for the variable X₃ are known *sig values* of $0.533 \geq 0.05$. Thus, it can be drawn to that the test results show no symptoms of heterodasticity.

3. Autocorrelation Test Results

The autocorrelation test in this study obtained results based on table-6 as follows:

Table 6
Greetings Autocorrelation Test

Model ^b Summary						
Pattern	R	R square	Customize d R Square	Std. Estimation Error	Durbin-Watson	
1	.798a	.638	.599	.70977	.985	

Source: Data processed by Researchers, 2023

Based on the table above, it is known value of Durbin-Watson (*d*) value is 0.985 with a significance of 5%, obtained results of $0 < 0.985 < 1.2347$, so that this result shows that the model used is free or does not occur positively.

4. Multicollinearity Test Results

The multicollinearity test in this study obtained results based on table-7 as follows:

Table 7
Multicollinearity test results

Coefficient		Collinearity Statistics	
		Tolerance	VIF
1	Environmental Cost (X ₁)	.947	1.056
	Environmental Disclosure (X ₂)	.430	2.323
	Environmental Performance (X ₃)	.445	2.245

Source: Data processed by Researcher 2023

Based on the table 7 it is known, for variable X₁ is environmental cost of 0.947, then for variable X₂ is environmental disclosure of 0.430, and for variable X₁ is Environmental Performance of 0.445. All three variables are greater than 0.10.

Multiple Linear Regression Test Results

Primarily based on the effects of the classical assumption test that has been achieved, it is able to be visible that the information in this observe meet the standards indicated by using normally disbursed information, no multicollinearity, free of autocorrelation, and no heterokedasticity. which means that the information is certified to apply multiple linear regression models. primarily based on statistics evaluation using IBM SPSS 25, the subsequent equation may be formulated:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

So, the results of the regression equation are obtained as follows:

$$Y = -6.616 + (-0.531) X_1 + (-0.273) X_2 + 1.256 X_3 + e$$

Information:

Y : Profitability

a : Constant

B₁, B₂, B₃ : Regression Coefficient

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X1	: Environmental Cost
X2	: Environmental Disclosure
X3	: Environmental Performance
E _i	: Error rate

The regression equation above indicates the relationship most of the independent variable and the dependent variable in element. The effects of the multiple Linear Regression test can be seen inside the following table:

Table-2
Multiple Linear Regression Test Results

		Coefficients ^a				
	Type	Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	-6.616	1.103		-5.999	.000
	Environmental Costs	-.531	.081	-.762	-6.516	.000
	Environmental Disclosure	-.273	.331	-.143	-.827	.415
	Environmental Performance	1.256	.607	.353	2.069	.048

Source: Data processed by Researchers, 2023

The Effect of Environmental Costs on Profitability

Primarily based on the table above, it may be visible that Environmental Cost (X1) in the significance level $\alpha = 0.05$. $0.000 \leq 0.05$ with a partial test result (t-test) of -6.516 it is able to concluded that H1 is rejected. In this situation, environmental expenses are partly affected by profitability. With a negative constant value of - 0.531 indicates a negative influence of the dating among Environmental Cost and Profitability. This means that every time a company discloses the value of environmental costs, it reduces the price of profitability. Conversely, if the company does not disclose the value of environmental costs, it will add value to profitability.

In the short term, environmental costs have an effect on reducing the profitability of the enterprise. However, within the lengthy run by incurring environmental costs, the enterprise gets an excellent picture or picture within the eyes of stakeholders and the network. Thus, it can increase the trust of stakeholders and the public to be able to invest or buy products or use company services in order to enhance the business enterprise's financial overall performance.

The effects of this observe are consistent with studies carried out with the aid of (Tisna et al., 2020a) i.e. environmental costs negatively have an effect on the profitability of the enterprise. The study states that increased environmental costs can reduce a company's profitability. This is because

environmental costs are additional costs incurred by the company. This result is also reinforced by ([Ladyve et al., 2020](#)), which states that environmental costs are considered a corporate expense. The same thing was also expressed by ([Damayanti, SE., M.Si. & Widyowati, 2022](#)), ([Sahputra et al., 2020](#)) and ([Onyinyichi et al., 2017](#)), which states that environmental costs have an impact on Profitability.

The Effect of Environmental Disclosure on Profitability

Furthermore, primarily based at the table above, it is able to also be visible that Environmental Disclosure (X2) in the significance level $\alpha = 0.05$ which is $0.415 \geq 0.05$ with partial test results (t-test) of -0.827 , it can be concluded that H2 is accepted. In this case, partial environmental disclosure has no effect on profitability. A negative constant value of -0.273 indicates the absence of an effect of the relationship between environmental disclosure and profitability. This means that the small amount of environmental information disclosure made by the company does not affect the size of a company's profitability.

This is because mining companies have not disclosed complete information related to the environment in accordance with the applicable disclosure standards, namely The Global Reporting Initiative (GRI) standards, resulting in no significant influence between environmental disclosure and profitability. Research conducted by [Nuraini \(2010\)](#) in ([Damayanti, SE., M.Si. & Widyowati, 2022](#)) states that the Company will only disclose good information and will not disclose if such information is *badnews* because it is considered to damage the company's reputation and will reduce investor confidence in the company. This result is also reinforced by ([Sahputra et al., 2020](#)) which states that the company only makes environmental disclosures with sober information. The same thing was also expressed by ([Lestari & Wangi, 2020](#)) and ([Wati et al., 2021](#)) which states that environmental disclosure variables have no effect on Profitability.

The Effect of Environmental Performance on Profitability

Finally, primarily based at the table above, it is able to also be visible that Environmental Performance (X3) has a significance of $\alpha = 0.05$, which is $0.048 \leq 0.05$, with partial test results (t-test) of 2.069 , it is able to be concluded that H3 is rejected. In this case, environmental overall performance partially affects profitability. With a positive constant value of 1.256 shows a positive effect on the connection among Environmental overall performance and Profitability. This means that every time a company discloses the value of environmental performance, it'll grow the cost of profitability. Conversely, if the company does not disclose the value of environmental performance, it will reduce the value of profitability.

Studies performed ([Lestari & Wangi, 2020](#)) states that there is an impact of Environmental Performance on Profitability. In the study stated that if the company's environmental performance has increased, the company's profitability level will increase, as well as if the company's environmental performance is low, the level of profitability decreases. That is supported by means of studies performed through ([Ladyve et al., 2020](#)) which states that with good environmental performance will also get a good response from investors and stakeholders and also have an impact on increasing income in the long run. This is reinforced by research ([Wijayanti, 2021](#)), ([Wati et al., 2021](#)) ([Manrique & Martí-Ballester, 2017](#)), ([Haninun et al., 2018](#)) and ([Rajak, 2022](#)) which states that environmental performance affects profitability.

Effects of Environmental Costs, Environmental Disclosures, and Environmental Performance on Profitability

Simultaneously, the F-test results were obtained at 16.420 with a significance value of 0.000 less than 0.05 ($0.000 < 0.05$). It can be concluded that Environmental Cost, Environmental Disclosure, and Environmental Performance simultaneously or together have a significant effect on Profitability. This shows that environmental costs, environmental disclosures, and environmental performance can make a company's profitability rise or even fall.

The results of this study are in line with research conducted by [\(Sabputra et al., 2020\)](#) which states that reporting company activities related to environmental performance and environmental costs is one way to send positive signals to stakeholders so as to increase profitability. Environmental disclosure contains information related to environmental activities to stakeholders correctly, completely and in detail so that it will affect profitability.

This result is also acknowledged by [\(Damayanti, SE., M.Si. & Widyowati, 2022\)](#) which states the disclosure of environmental expenses incurred in the implementation of the corporation's social and environmental duty, it can reduce the company's profitability. So that environmental overall performance and environmental disclosure are important because they aim to help companies in managing environmental costs so can be allocated appropriately so that the company gets a sustainable business image, which is capable of offer benefits not only for the enterprise and the community but also the surrounding environment.

CONCLUSIONS

Based at the outcomes of studies carried out in checking out Environmental expenses, Environmental Disclosure and Environmental overall performance on Profitability in mining corporations indexed on the Indonesia stock exchange inside the 2019-2022 duration, the subsequent conclusions may be drawn:

1. Environmental value Variables have a negative and significant impact on Profitability in mining corporations indexed at the Indonesia inventory exchange inside the 2019-2022 period. This suggests that the more environmental costs disclosed, the less profitability it describes. Conversely, if the company does not disclose the value of environmental costs, it will add value to profitability. Increased environmental costs can reduce a company's profitability. This is because environmental costs are additional costs incurred by using the corporation so as to lessen the corporation's profitability.
2. Environmental Disclosure variables have no effect on profitability in mining companies indexed on the Indonesia stock exchange in the 2019-2022 duration. This is because the mining company still does not disclose data associated with the surroundings completely in accordance with the applicable disclosure standards, namely The Global Reporting Initiative (GRI) standards, because the company will only disclose good information and will not disclose if the information is *bad news* Because it is considered to damage the company's reputation and will reduce the interest and trust of investors to invest.

3. Environmental Performance Variables have a positive influence on Profitability in mining companies indexed on the Indonesia stock exchange in the 2019-2022 duration. So, it can be concluded that the better the Environmental Performance of a company will add value to profitability. Conversely, any decrease in Environmental Performance will reduce the value of the company's profitability.
4. Environmental value Variables, Environmental Disclosure, and Environmental overall performance simultaneously or collectively have a significant impact on Profitability in mining businesses indexed at the Indonesia stock exchange within the 2019-2022 duration. Reporting company activities associated with Environmental Costs and Environmental Performance is one manner to send positive indicators to stakeholders in order to increase profitability. Environmental disclosure contains information related to environmental activities to stakeholders correctly, completely and in detail so that it will affect profitability.

Recommendations

1. Advice for Academics

The outcomes of this examine may be considered for further research. Further research is expected to continue research related to profitability based on other factors. Factors related to the environment such as environmental accounting, environmentally friendly products, environmental activities, environmental involvement and reporting, and environmental awareness and audits or factors that are not related to the environment such as working capital, *good corporate governance*, corporate value, *leverage*, wisdom and company size so that they can benefit other interested parties.

2. Advice for the Company

From the outcomes of this have a look at, it is predicted that corporations might be extra stimulated to pay unique interest to the surrounding surroundings. The corporation need to be more able to improve the quality of a good environment to create a comfortable and healthy environment, so that those who benefit not only the surrounding but the company also feel the benefits.

3. Advice for External Parties

The results of this study are expected to help external parties such as investors and shareholders in making decisions to entrust the funds they will invest or lend to a company, and provide an overview of social responsibility and environmental impacts that arise.

The real implication of the results of this study is that mining companies in Indonesia should pay attention to the impact of environmental costs, environmental disclosures, and environmental performance on their profitability. From statistical test data, it can be seen that environmental costs have a negative and significant influence on profitability, which means that companies must look for ways to reduce environmental costs without sacrificing environmental quality. Environmental disclosure has a positive influence on profitability, which means that companies must increase their transparency and accountability in reporting their environmental activities to stakeholders. Environmental performance also has a positive influence on profitability, which means that companies should strive to improve their environmental performance by implementing environmentally friendly practices, such as energy saving, emission reduction, and waste

management. Thus, mining companies can increase their profitability while fulfilling their social responsibility to the environment.

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