

## The Effect Of Environmental Performance On Profitability With Environmental Disclosure As Moderating

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**Abstract:** Profitability describes a company's capacity to generate profits. Profitability is typically increased by implementing a nonexistent budget system, reducing marketing expenses, and implementing other asset management strategies. However, asset management is not the only factor affecting profitability in this instance. Environment, society, and economy have a fundamentally interdependent relationship. This research is expected to provide scientific contributions and insights in the field of accounting, particularly in the study of how the quality of environmental performance and disclosure of environmental performance affect the level of profitability, especially for mining companies. This object study on 15 companies listed on the Indonesia Stock Exchange in 2018-2020 that received environmental performance ratings from PROPER. Quantitative research utilizing secondary data is conducted in the present study. Purposeful sampling was used to carry out the sampling technique. Multiple moderation linear regression analysis, classical assumption testing, and hypothesis testing were employed in the investigation. The results indicated that environmental performance had a positive and statistically significant effect on profitability, with a significance level of 0.000. With a significant value of 0.000, the environmental disclosure variable strengthened the relationship between environmental performance and profitability.

**Keywords:** Environmental Performance; Environmental Disclosure; Profitability.

**Abstrak:** Profitabilitas merupakan gambaran dari kemampuan perusahaan dalam mencapai keuntungan. Dalam upaya meningkatkan profitabilitas, perusahaan biasanya menggunakan strategi seperti menerapkan sistem anggaran tak bersisa, mengurangi biaya pemasaran, dan melakukan strategi pengelolaan aset lainnya. Namun, dalam hal ini pengelolaan aset bukan satu satunya faktor mempengaruhi tingkat profitabilitas. Hubungan antara lingkungan, social dan ekonomi merupakan hal fundamental yang saling berkaitan. Hal tersebut terjadi karena keberadaan perusahaan ditengah lingkungan berpengaruh langsung maupun tidak langsung terhadap lingkungan dan sosial. Penelitian ini diharapkan dapat memberikan kontribusi ilmiah dan wawasan di bidang akuntansi, khususnya pada kajian tentang bagaimana kualitas kinerja lingkungan dan pengungkapan kinerja lingkungan mempengaruhi tingkat profitabilitas khususnya untuk perusahaan pertambangan. Objek penelitian ini menggunakan 15 perusahaan yang terdaftar pada Bursa Efek Indonesia dan mendapat peringkat kinerja lingkungan dari PROPER pada

tahun 2018-2020. Jenis penelitian yang dilakukan dalam penelitian ini yaitu kuantitatif dengan menggunakan data sekunder. Teknik pemilihan sampel dilakukan dengan menggunakan metode purposive sampling. Analisis yang dilakukan dengan menggunakan metode analisis regresi linear moderasi berganda, uji asumsi klasik dan uji hipotesis. Hasil penelitian menunjukkan bahwa variabel kinerja lingkungan berpengaruh positif dan signifikan terhadap profitabilitas dan variabel pengungkapan lingkungan memperkuat pengaruh kinerja lingkungan terhadap profitabilitas.

**Kata Kunci:** Kinerja Lingkungan; Pengungkapan Lingkungan; Profitabilitas.

## INTRODUCTION

Profitability describes the capacity of a business to generate profits in terms of sales, assets, and capital. Utilize profitability ratios to determine a business's profit level. The profitability ratio represents the influence of liquidity, asset management, debt, and capital on operating results. Profitability is an indicator of the success of a business. It is a crucial concept that stakeholders use to evaluate the company. On this basis, the organization continues to pursue maximum profitability. Return On Equity (ROE) is one of the most important measures of profitability (ROE). ROE demonstrates the ability of a company's management to maximize profits with the available capital. This ratio represents the shareholder's rate of return for each rupiah invested. The higher the rate of return, the better, as it indicates that dividends distributed or retained earnings will also be substantial (Masum, 2014).

Return on Equity (ROE) shows a combination of leverage, turnover, and company profitability (Cheng and Christiawan, 2011; Lie, 2017). (Cheng and Christiawan, 2011; Lie, 2017). When viewed from the formula and its distribution, the factors that affect the size of the ROE number are Profit margin, Asset Turn-over, and Financial leverage. These factors significantly affect the size of the ROE number obtained by the company (Yanto and Pandia, 2012). (Yanto and Pandia, 2012). In other words, ROE is one measure that is quite complete to assess a company's financial performance.

Profitability is typically increased by implementing a nonexistent budget system, reducing marketing expenses, and implementing other asset management strategies. However, asset management is not the only factor affecting profitability. However, the environment and social surroundings of the company also significantly affect profitability. It happens because the company in the environment has a direct or indirect effect on external existence. The company's existence also has great potential to change the community environment, so the company's profitability improvement strategy must also pay attention to environmental aspects (Epstein et al., 2018).

Companies are becoming increasingly aware that they are no longer faced with a single bottom line, namely the economic aspect, which is only reflected in financial conditions but must also consider social and environmental factors, also known as the triple bottom line, which consists of the planet, people, and profits. The company's primary objective is to achieve a profit. The company cannot be separated from the role of people, including investors, communities, competitors, the government, and the planet, which must be preserved as a location for their activities. Good environmental management will

increase the number of stakeholders, which will increase profitability. Theoretical stakeholder, all stakeholders have access to company data. Environmentally conscious stakeholders will use information regarding the company's environmental performance when making decisions. The triple bottom line concept aligns with the idea of environmental accounting. Environmental accounting is an assessment of an organization's environmental performance conducted so that businesses can use nature as an economic resource and ensure its sustainability. Environmental and community consciousness will enhance the company's reputation (Flammer, 2013).

Corporate social activities can positively impact sales and market legitimacy, attract more investors to the capital market, and reduce company operating expenses, for instance, by utilizing renewable energy or recycled materials. In addition, products with innovations relating to environmental friendliness or the improvement of the community's condition can create legitimacy, causing people to be interested and even able to purchase the offered products. It makes them accountable for delivering benefits that affect the environment and society. The influence of environmental and social relations with companies and the company's participation in environmental activities causes companies to be required to continue reporting their environmental management activities. Environmental disclosure is a conduit for informing stakeholders about a company's environmental performance. It is deemed beneficial because it can increase profitability. However, environmental accounting disclosure remains invalid in Indonesia because it is not expressly regulated by accounting standards (Risal et al., 2020).

Environmental fund reporting is still voluntary. It is explained in PSAK No. 1 (2013 Revision) of 2015, paragraph fourteen (14), which states: "Several entities also provide in their financial statements reporting on the environment and value-added, especially in industries where environmental factors are essential, and employees play an essential role as a group of report users. Reports presented outside the scope of financial accounting standards. The existence of reporting related to environmental performance greatly affects the existence and existence of the company. Through this report, the company shows how its overall performance, including the environmental performance, they have done to gain legitimacy from the community. According to legitimacy theory, individuals and organizations will work in systems with many relationships with other parties. In achieving their goals, the results obtained are influenced by the social and political environment they interact (Davis et al., 2018).

Companies must continually ensure that they adhere to environmental standards so that there are no demands from the community and the business can continue to exist. When it is demonstrated that the social contract between the company and the environment in which they conduct management activities is appropriate, the company's legitimacy will be established. To illustrate this to the community, businesses are encouraged to publish an annual report detailing their environmental performance (Dharmawan Krisna and Suhardianto, 2016). This study's phenomenon is that many companies use environmental resources but disregard their impact on society and disclosure of environmental performance, which is still voluntary and is not explicitly regulated by financial accounting standards. Consequently, this study aims to determine how the application of environmental and social accounting affects the company's profitability (Endiana et al., 2020).

It is believed that environmental performance and forms of corporate responsibility, such as the disclosure of environmental performance in the annual report, impact the profitability of a company. Several previous studies, including those conducted by (Ningtyas and Truyanto, 2019) and Gregory Paulus Tahu, have examined this theory. According to the findings of this study, environmental disclosure has no effect on profitability. Environmental performance, on the other hand, influences profitability. Sulistiawati and Dirgantari have also conducted additional studies (2017). Environmental performance has a positive effect on profitability, while environmental disclosure has no effect on profitability, according to the findings of this study. In addition, (A.Putri et al., 2019) discovered that environmental performance positively influenced profitability.

Environmental performance and disclosure on profitability, where profitability is approximated by return on equity, have also been the subject of prior research (ROE). Similar to the findings of (A.Putri et al., 2019) regarding the impact of implementing green accounting and environmental performance on the profitability of manufacturing companies listed on the IDX between 2017 and 2018, this study focuses on the period between 2017 and 2018. In addition, research conducted by (Ningtyas and Triyanto, 2019) titled "The Effect of Environmental Performance and Environmental Disclosure Against Company Profitability" focuses on a mining company listed on the Indonesia Stock Exchange between 2015 and 2017. This research intends to reexamine the effect of environmental performance on profitability and the role of environmental disclosure in enhancing the impact of environmental performance on profitability, based on the previous explanation. This research is a continuation of previous studies by (Putra, Yudi Partama, 2018) entitled "The Effect of Environmental Performance on Performance Finance with the Disclosure of Corporate Social Responsibility." The similarity of this research with the research of (Putra, Yudi Partama, 2018), which uses the same, namely environmental performance, financial performance and Corporate Social Responsibility assessment. While the difference between this study and the research of (Putra, Yudi Partama, 2018) is the object of research and the period of research. (Yudi Partama's, 2018) was conducted on manufacturing companies listed on the Indonesia Stock Exchange in 2013-2016, while this research was conducted on mining companies listed on the Indonesia Stock Exchange in 2019-2021.

Based on the description above, I am interested in conducting this research, where I see that there are differences in research results in previous studies. This researcher also measures the effect of environmental performance on profitability and wants to know how environmental disclosure can strengthen the impact of environmental performance on profitability. Therefore, I am interested in conducting this research under "The Effect of Environmental Performance on Profitability with Environmental Disclosure as a Moderating Variable in Mining Companies Listed on the Indonesia Stock Exchange."

## **THEORITICAL REVIEW**

**Grand theory.** This Stakeholder Theory demonstrates the significance of revealing environmental activities to stakeholders. According to stakeholder theory, all stakeholders have the right to obtain and evaluate information regarding company activities (Deegan, 2004; Sulistiawati and Dirgantari, 2017). This information will dictate which decisions stakeholders make. A stakeholder is therefore a factor that affects the company's survival.

Primary stakeholders and secondary stakeholders are distinguished among stakeholders. The shareholders, owners, investors, and employees who have direct control over the company are primary stakeholders. The government, the general public, and the environment are examples of secondary stakeholders, as they are interested in the company but do not exert substantial influence. (Latupono and Andyani, 2015). Environmental disclosure is necessary because stakeholders must evaluate and assess the extent to which a company carries out its environmental and social responsibilities to demand the company's accountability for the environmental activities it has conducted (Latupono and Andyani, 2015). According to (Fitriani, 2013), stakeholder theory entails that corporations devise strategies to protect their relationships with interested parties through sustainable disclosure of their social, environmental, and financial performance.

According to (Oktariani and Mimba, 2014), the Legitimacy theory states that an entity or organization in its activities must ensure whether they have operated by environmental and social norms and confirm whether the community accepts the policies' powers. Responsibilities took by an entity (legitimized). The embodiment of legitimacy in the business world in the form of reporting on the results of the company's social and environmental activities. This report shows that the company does not ignore the interests of outsiders but is also responsible for any actions that involve the environment. The relationship that affects legitimacy theory with environmental performance and company financial performance is if there is a mismatch between the company's value system and community assessment (legitimacy gap), resulting in the company having the risk of losing its legitimacy (Almar et al., 2012; Yadnyana, 2017). Therefore, the organization tries to create harmony between the values attached to its activities and the behavioral norms in the social system where the organization is part of the system. As long as the two are aligned, it is called corporate legitimacy. If there is a difference between the two systems, it will impact the survival of the company.

Environmental performance is a measurement of the assessment conducted for the results of environmental conservation activities as a form of concern for the company as a user of existing environmental resources (Ayu et al., 2017). Environmental accounting is a concept in which corporations are no longer subject to responsibilities based on a single bottom line, namely corporate value, which is only reflected in its financial condition. However, corporate responsibility must be determined by the triple bottom line. Triple bottom lines imply that in addition to pursuing profit, businesses must also actively contribute to the preservation of the environment and the community's welfare, as financial conditions alone are insufficient to ensure the company's success in growing sustainably. Profit is one of the three essential components of the triple bottom line. Profit is the most important factor and the primary objective of all business activities. Profit is an additional source of revenue that can be used to ensure the company's survival. Profit is the link between a business and its customers and the environment. Profit is not the only factor that determines a company's success; the existence of the community, the environment, and profits all influence each other until sustainability is achieved.

**People.** Recognize that the surrounding community is an essential stakeholder because the company's existence, survival, and growth are dependent on the community's support. Companies must be committed to providing the most significant possible community benefit. In addition, the company's operations have the potential to impact the surrounding

community by indirectly creating employment opportunities. The act of caring for the environment is voluntary and not coercive. To strengthen the commitment to social responsibility, the company's social activities must incorporate an environmental accounting perspective so that it can be said that the company has invested in the future. The community will increase the company's profits in exchange.

**Planet.** The environment is related to all areas of the company's life. The relationship between the company and the environment is casual. If the company takes care of the environment, the environment will be beneficial for the company. Conversely, if the company destroys the environment, the environment will not benefit the company. Thus, the Triple Bottom Line application is indispensable for a company in carrying out its operations. A company is not only looking for a profit but also cares about the community and the environment around the company. The company will feel the benefits because it benefits the community and the surrounding environment through environmental programs (Fitriani, 2013).

Economic responsibility, legal or regulatory responsibility, and social responsibility are the three corporate responsibilities of Environmental Disclosure that must be carried out jointly and in harmony with stakeholders. Corporate social responsibility consists of the voluntary disclosure of an organization's environmental activities. Corporate social responsibility with environmental disclosure in the annual report so that the public can monitor the company's social responsibility-related activities. Environmental information disclosed by the company is believed to enhance the company's image. It increases the number of stakeholders to pique the interest of investors and increase the company's profitability (Fitriani, 2013). The company makes social and environmental disclosures for the following reasons: (1) The desire to meet the requirements contained in the law. (2) Consideration of economic rationality. For this reason, disclosing social responsibility provides a business advantage because the company does the "right thing" and may be seen as the primary motivation. (3) Confidence in the process of accountability or responsibility to report: Managers believe that people have an unavoidable right to obtain satisfactory information, and managers are not concerned with the costs involved in presenting that information. (4) Keinginan untuk mematuhi persyaratan pinjaman. Lembaga pemberi pinjaman, sebagai bagian dari kebijakan manajemen risiko mereka, cenderung menghendaki peminjam untuk secara periodik memberikan berbagai item informasi tentang kinerja dan kebijakan sosial dan lingkungannya. (5) To meet or adjust to society's expectations. (6) As a consequence of the threat to the company's legitimacy. (7) To manage certain powerful stakeholder groups. (8) To attract investment funds. (9) To comply with specific industry requirements (code of conduct). So there is a certain pressure to comply with these rules, which can further affect the reporting requirements. (10) To win specific reporting awards. It has positive implications for the company's reputation with stakeholders.

Disclosure of the social environment by the company aids in informing shareholders about the company's CSR (Corporate Social Responsibility) practices as a form of corporate responsibility to the environment. It has been demonstrated that environmental disclosures in the annual report influence investor reactions, as evidenced by the increasing volume of stock trading that generates profits for the company.

**Profitability.** The purpose of measuring the company's financial performance is to determine how the company's overall development can be used as a basis for decision-making and evaluating capital management to increase the company's production capacity. The indicator of a company's financial performance is the profit level's growth, which increases until it reaches its maximum profit. To enhance the value of financial performance, profitability is a crucial metric to consider (Julianto and Sjarief, 2016). Profitability measures a company's financial performance, as determined by published financial reports and accounting principles and standards. Profitability is the ratio of a company's profit to its assets or capital. The profitability ratio measures the ability of company executives to generate a profit through sales profits, net worth, and own capital. Profitability is a factor that enables management to freely and flexibly disclose social responsibility to shareholders. Companies with a high level of profitability tend to disclose more information on corporate social responsibility. Companies that can generate high profits typically have ample funds for social responsibility initiatives, reducing social pressure, and opposing outside views. There are several profitability measures, including operating profit, net income, return on investment/assets, and return on equity. Profits that merit distribution to shareholders have been reduced by interest and taxes. The greater the company's profit, the greater its ability to pay dividends. How to calculate the Profitability Ratio using the Return On Equity (ROE) ratio, based on the numerous theories described previously. According to (Gitnam, 2006) and (Cheng, 2009), Return On Equity (ROE) is a profitability ratio that compares a company's net profit after taxes to its total equity. ROE evaluation is essential for investors who wish to evaluate the company's capital management.

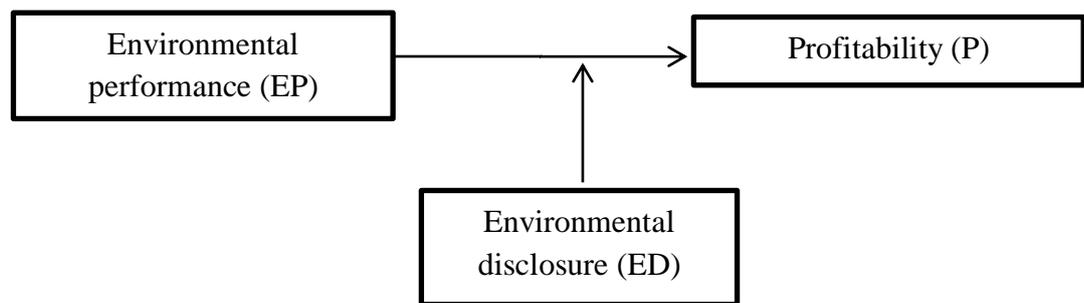
The environmental performance will positively impact the financial performance of fast-growing companies. However, environmental performance will have a negative effect on businesses with low growth rates because companies with high growth rates have a more organic management style and can generate high investment returns (Yadnyana, 2017). The environmental performance will influence the level of financial performance, as the rating of environmental performance by the government, in this case, the Ministry of Environment (KLH), can affect the interest of stakeholders, particularly investors and the general public. This viewpoint is consistent with the findings of (Tryas et al., 2019); (Putri et al., 2019); and (Eka Sulistiawati and Novi Dirgantari, 2017), which indicate that environmental performance has a positive impact on profitability. So, based on the preceding explanation, stakeholders frequently use environmental performance as a factor that can affect the level of a company's profitability. Therefore, the proposed hypothesis is as follows:

**H1:** Environmental performance has a positive effect on profitability.

(Sulistiawati and Dirgantari, 2017) Complete disclosure can be extremely advantageous for the company. Companies with a high level of accountability or that voluntarily provide information on environmental performance to external parties will have a positive impact on their relationships with parties who require and evaluate financial data. Environmental disclosure is a company's medium for describing their environmental performance, so that the existence of this disclosure is a significant factor in ensuring the sustainability of the company's environmental performance program. This

disclosure will directly increase the company's motivation to improve environmental performance so that it can be evaluated favorably by stakeholders who evaluate the company's financial performance. Environmental disclosure has a positive effect on company profitability, according to research by (Yudi, 2018), (Anggraini and Dudik, 2019), and (Damanik, 2017). In accordance with stakeholder theory, (Yadnyana, 2017) states in his study that disclosure with social and environmental dimensions will have an effect on the company's financial performance because the purpose of the disclosure is to satisfy the demands of interested parties (stakeholders) when evaluating the company. The community will be pleased with the company's continued environmental protection efforts. This obligation is the company's effort to maintain its existence and ensure its continued existence. Based on the preceding explanation, the following hypothesis can be formulated regarding environmental disclosure as a moderating variable for the effect of environmental performance on profitability:

**H2:** Environmental disclosure strengthens the effect of environmental performance on profitability



**Figure 1.** Research Model

## METHODS

Using Eviews 11, research methods and techniques aim to manage data and draw conclusions. The type of research data is quantitative data, specifically data in the form of numbers derived from library research or data derived from library research. The data is in the form of annual reports and financial reports of manufacturing for the years 2018-2020, and it contains information regarding the variables' measurements. Utilizing secondary data in the form of company-made data sources, such as annual reports and financial reports from the Indonesia Stock Exchange (IDX) website, [www.idx.com](http://www.idx.com), and the websites of each sample company, is the method of data collection for this study. It can be accessed for research purposes by downloading the necessary data. A descriptive statistical test, a classical assumption test comprised of a normality test, an autocorrelation test, a multicollinearity test, and a heteroscedasticity test, and hypothesis testing comprised of a determination test and a partial test, are employed in the analysis.

The population of this study are manufacturing companies listed on the Indonesia Stock Exchange and are PROPER participants of the Ministry of Environment in 2018-2020. Total population of manufacturing companies (cement sub-sector, ceramics,

porcelain and glass sub-sector, chemical sub-sector, plastics and packaging sub-sector, animal feed sub-sector, metal and similar sub-sector, cigarettes and other sub-sectors) - pharmaceutical sector) listed on the Indonesia Stock Exchange as many as 55 companies and meet the criteria of 15 companies. The sample selection used purposive sampling technique.

**Table 1.** Sample selection (Purposive Sampling)

No	Criteria	Sample Observation
1.	Number of manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2018-2020	55
2.	Number of samples of observations that do not have an annual report in 2018-2020	( )
3.	Number of samples of observations that are not PROPER participants in 2018-2020	(40)
4.	The number of observed samples that meet the criteria	15

Source: secondary data processed, 2022

Environmental performance is measured using a score from PROPER which is divided into five ratings. (1) Score 5 for companies whose environmental performance management is colored gold in PROPER. (2) Score 4 for companies whose environmental performance management is colored green in PROPER. (3) Score 3 for companies whose work management is colored blue in PROPER. (4) Score 2 for companies whose environmental performance management is colored red in PROPER. (5) Score 1 for companies whose environmental performance management is colored black in PROPER.

Environmental disclosure is measured using a checklist containing disclosure items that are subsequently matched with the company's annual report disclosures. This study's list of disclosure items is derived from the Global Reporting Initiative (GRI) Index formula.

$$\text{Disclosure index} = \frac{\text{Number of item disclosures}}{\text{Maximum number of disclosures}} \dots\dots\dots (1)$$

Return on Equity is used to calculate profitability (ROE). This ratio reflects the amount of return generated per investment for shareholders. ROE also demonstrates management's ability to manage capital profitably. The higher the return on equity, the better it indicates that the dividends distributed or reinvested as retained earnings are also substantial. The formula for calculating ROE:

$$\text{ROE} = \frac{\text{Net profit}}{\text{Shareholder's Equity}} \dots\dots\dots (2)$$

**Table 2.** Variables / Item Measurement

No	Variable	Measurement	Major reference
1.	Environmental performance (EP)	PROPER rating. 1) Gold : Very very good; Score = 5 2) Green : Very good; Score = 4 3) Blue : Good; Score = 3 4) Red : Bad; Score = 2 5) Black : Very bad; Score = 1	(Sulistiawati and Dirgantari, 2017; Tahu, 2019; Vivianita and Nafasati, 2018)
2.	Environmental disclosure (ED)	Disclosure index = $\frac{\text{Number of item disclosures}}{\text{Maximum number of disclosures}}$	(Cheng and Christiawan, 2011; Daromes, 2020)
3.	Profitability (P)	ROE = $\frac{\text{Net profit}}{\text{Shareholder's Equity}}$	(Cheng and Christiawan, 2011; Putri et al., 2019; Sulistiawati and Dirgantari, 2017)

## RESULTS

**Data analysis.** Environmental performance, environmental disclosure, and profitability as approximated by ROE are the variables used in this study. These variables will be evaluated using descriptive statistics in an effort to provide a preliminary explanation of the study's variables. These are the outcomes of the descriptive statistical analysis that was conducted.

**Table 3.** Descriptive Statistics

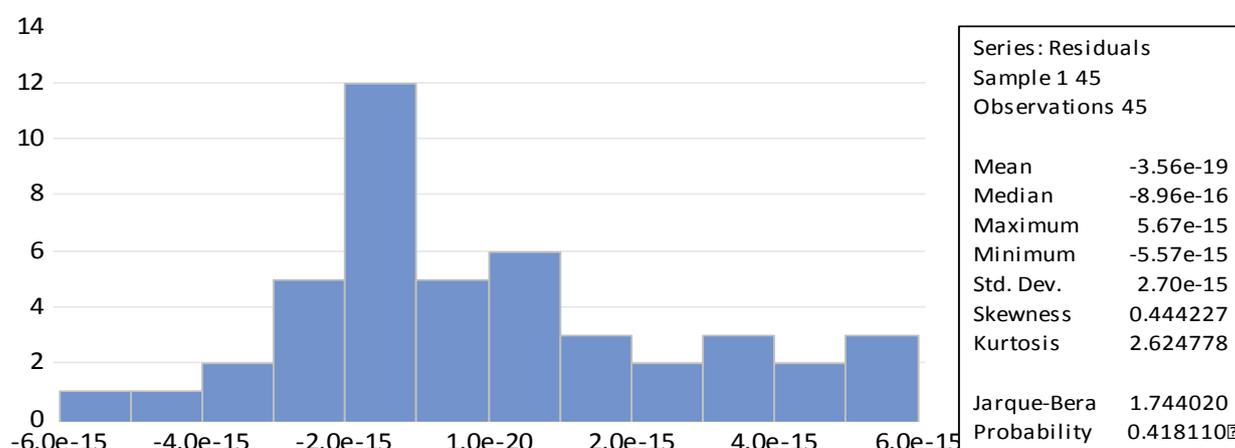
	N	Minimum	Maximum	Mean	Std. Deviation
Environmental performance (EP)	45	1	4	2.820	0.806
Environmental Disclosure (ED)	45	0.030	1.480	0.459	0.37
Profitability (P)	45	-0.130	0.230	0.069	0.081
Valid N (listwise)	45				

Source: Processed data, 2022

Table 3 displays the environmental performance variables that describe PROPER for a total of 45 samples, with a minimum value of 1 at PT. Bangun Indonesia in 2018 and 2019, PT Gunung Raja Paksi and PT Lotte Chemical Titan Nusantara in 2019 and 2020, respectively, and a maximum value of 4 at PT. Indocement Tunggul Prakarsa in 2018 and 2020, and PT Kalbe Farma. The average value (mean) of the environmental performance variable is 2.820 and the standard deviation is 0.806 percent. The environmental disclosure variable had a minimum value of 0.03 at PT Lotte Chemical Titan Nusantara in 2020 and a maximum value of 1.48 at PT Polychem Indonesia in 2020. It was a moderating variable. The average value of the moderating variable is 0.459 and its standard deviation is 0.37571. The profitability variable had a minimum value of -0.13 in 2018 at PT Solusi Bangun Indonesia and a maximum value of 0.320 in 2020 at PT Polychem Indonesia and PT Charoen Pochand Indonesia. The variable profitability has a mean of 0.069 and a standard deviation of 0.081.

The data normality test is used to determine whether or not the error produced by a regression model has a normal distribution. In this study, the residuals' normality was

evaluated using the Jarque-Bera (JB) test, with a significance level of 0.050. The test results are depicted in Figure 2:



**Figure 2.** Normality Test  
Source: Data processed by eviews, 2022

Figure 2 depicts a probability value of 1.744 for Jarque Bera's statistic. Because the probability value, 0.418, exceeds the significance threshold, 0.050. It indicates that the normality assumption is met. The Multicollinearity test is a traditional assumption test designed to identify correlations or relationships between independent variables. The multicollinearity test can only be performed on study models containing two or more independent variables or predictors. If the correlation between the independent variables is low, a regression model may be effective. The coefficient value between variables is the statistical instrument used to test the multicollinearity barrier in this research model. The Centered VIF value is less than 10, indicating that multicollinearity does not exist in this research model.

**Table 4.** Multicollinearity Test

No	Auxiliary	Centered VIF	Information
1	Environmental Performance (EP)	3.452	there is no multicollinearity
2	Environmental Disclosure (ED)	1.558	there is no multicollinearity
3	Profitability (P)	4.132	there is no multicollinearity

Source: Data processed by eviews, 2022

The results of testing the correlation between independent variables are presented in Table 4. The test results for each independent variable's VIF are less than or equal to 10. Therefore, no correlation exists between the independent variables in this research model. This test determines if there is a correlation or relationship between the residuals of one observation and the residuals of other observations in the regression model. The Durbin-Watson test is a statistical method for determining the correlation between residuals in this study. The provision that the DW number below -2 indicates a positive autocorrelation,

between -2 and +2 indicates no autocorrelation, and above +2 indicates a negative autocorrelation allows for the detection of autocorrelation.

**Table 5.** Autocorrelation Test

No	Autocorrelation	Score	Information
1	Durbin-Watson stat	1.047	Positive Autocorrelation

Source: Data processed by eviews, 2022

The results of the Durbin Watson test are displayed in Table 5. The test output value is 1.071, where the DW number is between -2 and +2. Therefore, it can be concluded that autocorrelation does not exist. The heteroscedasticity test aims to determine whether or not the residual variance between observations is unequal. In this study, the Harvey test was used to examine heteroscedasticity. This is illustrated in Table 6:

**Table 6.** Heteroscedasticity Test Results

No	Information	Harvey test
1	F. Statistics Prob. F	1.608 0.212
2	Obs* R-Square Prob. Chi-Square	3.201 0.201

Source: Data processed by eviews, 2022

Prob value. From the calculated F and Chi-Square counts of all tests more significant than the significance value of 5 percent, there is no heteroscedasticity in the equation model.

**Table 7.** Simultaneous Test (f test)

No	Information	Simultaneous Test
1	F. Statistik Prob. F	3.614 0.003

Source : Data processed by eviews, 2022

The calculated f test result is 2.701, and the probability value of the f statistic is 0.003 smaller 0.050, indicating that environmental performance and environmental disclosure have a significant effect on profitability in 2018-2020 for manufacturing companies listed on the Indonesia Stock Exchange (IDX).

According to (Prasinta, 2012), the coefficient of determination (R<sup>2</sup>) is used to measure and determine the appropriateness of the relationship between the independent variable and the dependent variable in a regression equation. The coefficient of determination has a value between 0 and 1. If the R<sup>2</sup> value is close to zero, it indicates that the independent variable has minimal explanatory power over the dependent variable. If R<sup>2</sup> is close to 1, however, it indicates that the independent variable can explain the dependent variable with nearly all of the necessary information.

**Table 9.** Coefficient of Determination

Information	Coefficient of Determination
R Squared	0.486
Adj. R-Squared	0.416

Source: Data processed by eviews, 2022

The value of R Square is 0.486, while the value of Adjusted R Square is 0.416. The financial impact of R Square's 48.600 percent environmental performance and environmental disclosure is significant. In addition, the remaining 51.400 percent can be accounted for by variables not included in this study.

**Table 8.** Coefficient of Determination

Variable	Coefficient	t-Statistics	Sig.
Contant	4.207	2.512	0.003
Environmental Performance	2.094	2.546	0.003
Environmental disclosure	15.134	2.806	0.002
Environmental Performance * Environmental Disclosure	3.938	3.507	0.003

Source: Data processed by eviews, 2022

Based on table 8, the regression equation formed in this regression test is:

$$P = 4.207 + 2.094 EP + 15.134 ED + 3.938 EP * ED \dots\dots\dots (3)$$

The value of the constant is 4.207. It indicates that the value of the dependent variable (profitability) will decrease in the absence of the independent variable (environmental performance) and the moderating variable (environmental disclosure). Positive, the environmental performance regression coefficient is 2.094. It indicates that the value of the variable P will increase if EP increases by one unit. The positive coefficient indicates that the relationship between the variables EP and P is unidirectional. The greater the value of environmental performance, the greater the value of profitability. The environmental disclosure regression coefficient is 15.134 and is positive. It indicates that if the value of ED increases by one unit, the value of P will also increase by one unit. The positive coefficient indicates that the ED variable has a unidirectional effect on the Y variable. The greater the value of environmental disclosure, the greater the value of profitability. The interaction coefficient between environmental performance and environmental disclosure (EP\*ED) of 3.938 indicates that if all other variables remain constant, one additional unit of environmental performance with environmental disclosure will increase profitability by 3.938.

## DISCUSSION

The result of testing the first hypothesis in this study is that environmental performance has a positive effect on profitability. This means that the higher the environmental performance, the profitability will increase. Mining companies listed on the Indonesia Stock Exchange consider environmental performance to be important because

it is a company activity that aims to protect the environment and preserve the benefits of the natural resources used. From the findings of this study, the company will gain an image or reputation in accordance with how it manages its environment.

The results of this study support the statement (Tahu, 2019) which states that environmental performance is a mechanism by which companies voluntarily involve environmental issues into their operations and interactions with stakeholders, it goes beyond the organization's legal responsibilities. Environmental performance is an activity carried out by a company to create a good or green environment. Therefore, the company's environmental performance is assessed based on ratings from the environmental performance appraisal program issued by the ministry of the environment or known by the acronym PROPER to encourage companies to improve environmental management.

The interdependence of economic, environmental, and social factors cannot be denied. The value of society and the economy will be significantly impacted by environmental conditions, and vice versa. Consequently, many parties use the environment as one of their decision-making criteria and no longer rely solely on profit. The findings of this study support the stakeholder theory, which states that when a company participates in environmental preservation and receives an excellent environmental performance rating in PROPER, it influences the decisions of interested parties, thereby affecting the level of profitability. Stakeholders are all parties in society with essential roles, including capital providers, policymakers, and environmental policymakers. Environmental policy is a form of sustainable management and utilization of natural resources and the environment that aims to improve the well-being of the community in a wholesome setting. It implies that in order to maintain the company's existence and long-term viability, stakeholders' support is required, one of which is an environmental conservation strategy that will increase profitability. In addition, this study provides support for the legitimacy theory, which states that companies listed in PROPER, such as those in the plastics and packaging, cement, chemical, pharmaceutical, and metal subsectors, with high environmental performance scores will increase their profitability. In the eyes of the community, a company's profitability will increase along with its environmental performance if it demonstrates a positive reputation in the community through its social and environmental activities.

This result is also supported by (Sulistiawati and Dirgantari's, 2017) assertion that the greater the environmental performance, the simpler it is for investors to respond positively to the stock price volatility of the company, thereby enhancing the company's financial performance. According to (Sulistiawati and Dirgantari, 2017), (Tahu, 2019), and (Vivianita and Nafasati, 2018), environmental performance has a positive effect on profitability, which is supported by the findings of this study. It implies that when a company has a positive image of its environmental performance, it will be able to increase its profitability by attracting interested parties. The public and investors will be more loyal to businesses with a strong environmental performance, and they may even be interested in investing in such businesses.

The result of testing the second hypothesis in this study is that environmental disclosure strengthens the effect of environmental performance on profitability. This means that mining companies listed on the Indonesia Stock Exchange shall disclose the environment as a form of corporate responsibility regarding their activities in an effort to preserve the environment and its impact on society. Environmental disclosure reflects whether the company is good or bad in utilizing natural resources and managing the

environment. Environmental management activities as seen from the disclosures in the annual report based on the GRI index. Environmental disclosures show items about what activities the company has carried out in the economic, environmental and social categories. By the economic type of environmental disclosures, companies will report their financial performance, market presence, procurement practices, and indirect economic impacts. The environmental and social categories encompass various issues, such as how companies handle waste, energy, and materials, maintain biodiversity, employment practices, human rights, and customer and community welfare in instances where these three categories are interconnected. As a result, reporting on the company's environmental activities is one of the factors that influence the decisions of interested parties as it pertains to issues essential to the company's continued existence. Today, businesses must account for their environmental activities to increase stakeholder trust. It is not sufficient for a company to make efforts to preserve the environment and engage in social activities without reporting the form and results of these efforts. Through environmental disclosures in the annual report, stakeholders will evaluate the company's comprehensive environmental performance. Environmental disclosure can therefore strengthen the relationship between environmental performance and profitability. These results support the theory of stakeholders. According to this theory, the interests of management and capital owners are no longer the company's sole focus. However, the company also considers the interests of its employees, customers, the environment, and society. Stakeholders recognize that they serve as a forum for the benefit of other parties in addition to the company. These findings also support the legitimacy theory, which states that a business must pay attention to environmental conditions and the local community. As a result of this consideration, the company's operations can continue, and the community can accept the company's existence. Corporate responsibility that accurately reports the effects of environmental management will encourage businesses to advance and gain community recognition or legitimacy, which will positively affect the level of profitability.

The explanation above is in line with research conducted by (Putra, 2018); (Anggraini and Dudik, 2019) and (Damanik, 2017) with research showing that environmental disclosure has a positive effect on company profitability. The company requires recognition from the community, whereas the community wants the company to be responsible for managing the environment surrounding the business. The community will continually evaluate its environmental performance, requiring the company to coordinate its activities with the community's expectations.

## CONCLUSIONS

Based on the collected data and testing of the hypothesis, this study concludes that environmental performance as measured by PROPER contributes to increasing profitability. Profitability will increase proportionally with the quality of the company's environmental management and implementation. Environmental disclosure enhances the profitability-enhancing effect of environmental performance. The greater the environmental disclosure of a company, the more significant the impact of environmental performance on profitability. This research is anticipated to be a substantial factor in companies' decision to pay more attention to the triple bottom line principle and provide readers with additional insight regarding the company and its environmental performance. Future research should be able to add measurement tools that are proxied by dependent variables other than those used in this study to understand better which financial performance ratios can be affected by environmental performance and environmental disclosures, such as liquidity ratios and different profitability ratios. Additional research may extend the observation period or increase the number of companies observed to improve data distribution. Because according to this study, the environmental performance of a company has a significant impact on its financial performance. Environmental factors should be considered by the company's financial management when determining its financial performance, although many other factors also play a role. Before investing in a company, investors should consider the positive and negative effects of policies related to the performance company environment and the company's financial performance.

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