

THE EFFECT OF ENVIRONMENTAL PERFORMANCE ON ECONOMIC PERFORMANCE WITH ENVIRONMENTAL DISCLOSURE AS INTERVENING VARIABLE (SURVEY ON MANUFACTURING COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE FOR THE 2019-2020 PERIOD)

Muhammad Ali
Shafira Annasya Dewi
Renatha Srimorinto
Desti Alda Fajrina
Anggita Muthia Rahayu
Topan

DOI: <https://doi.org/10.37178/ca-c.23.1.369>

Muhammad Ali, Widyatama University, Bandung, Indonesia
Email: muhammad.ali@widyatama.ac.id

Shafira Annasya Dewi, Widyatama University, Bandung, Indonesia

Renatha Srimorinto, Widyatama University, Bandung, Indonesia

Desti Alda Fajrina, Widyatama University, Bandung, Indonesia

Anggita Muthia Rahayu, Widyatama University, Bandung, Indonesia

Topan, Widyatama University, Bandung, Indonesia

Abstract

The purpose of this research was to determine the effect of Environmental Performance on Economic Performance with Environmental Disclosure as an intervening variable. The exploration subjects are manufacturing companies listed on the Indonesia Stock Exchange for the 2019-2020 period. This study uses a descriptive and verification approach. The data analysis technique in this research is descriptive analysis and path analysis. Based on the sampling criteria, there were 88 samples as data sources. The results of the analysis show that in the era of the covid-19 pandemic, Environmental Performance does not affect Environmental Disclosure, nor does it affect Economic Performance either directly or through Environmental Disclosure. In general, the Environmental Performance is quite good, but it is not able to improve the company's profitability. This is due to the massive impact of the pandemic, causing the

weakening of the national economic growth rate, thus having an impact on the manufacturing industry in Indonesia.

Keywords: Environmental Performance, Economic Performance, Environmental Disclosure.

Introduction

The manufacturing sector is one of the most important sectors in the national economy. To note, the manufacturing sector index consists of three main sectors, namely the basic and chemical industrial sectors, various industries, and the consumer goods sector. Not only plays a role in employment, the manufacturing sector also contributes significantly to Gross Domestic Product (GDP).

Central Bureau of Statistics (BPS) noticed that Indonesia's economic growth in 2019 was only able to reach 5.02%. BPS said that the cause of the decline in Indonesia's economic growth occurred because the performance of the manufacturing sector fell sharply every year. The contribution of the manufacturing sector in GDP was recorded as the largest compared to other sectors, which was 19.7%. However, its growth during 2019 was only at 3.80%. This achievement decreased compared to the previous year, which was still growing at 4.27%[\[1\]](#).

The main factor behind the declining growth of the manufacturing sector is the pattern of public spending which is more difficult to predict due to the flood of information, both positive and negative, through various information media. Increased prudence is perhaps the most appropriate term to describe today's public sentiment. The company's operations in a position as part of the community, often affect the lives of the encompassing local area. Its reality can be acknowledged as an individual from the local area, on the other hand its reality can be undermined if the corporate does not conform to the standards winning in the public eye or even harms the members of the community. Therefore, the company through its management tries to obtain a match between the activities of the company's association and the values of the general public and its stakeholders.

BPS issued a report stating that at the beginning of the spread of Covid-19 in the first quarter of 2020, Indonesia's economic growth was at 2.97 percent. This figure is much corrected when compared to 2019 in the same quarter of 5.02 percent, even in the second quarter of 2020 to minus 5.32 percent and in the third quarter of minus 3.49 percent (year on year). The Ministry of Finance projects that the economic growth rate will only range from minus 1.7 percent to 0.6 percent in 2020. With this weakening of the national economic growth rate, it will also have an impact on the manufacturing industry in Indonesia. The performance of the national manufacturing industry began to experience a significant decline in March 2020, which was marked by the weakening of the Manufacturing PMI (Purchasing Managers' Index) in the manufacturing sector from 51.9 in February 2020 to 45.3 in March 2020 and a free fall. to a low of 27.5 in April 2020. (a reading below 50 represents a contraction in manufacturing activity). This is reinforced by the government's official statement through the ministry of industry in April 2020 which stated that several manufacturing industrial sectors experienced a decline in production capacity by up to 50 percent, with the exception of the medical equipment and drug industries [\[2, 3\]](#).

So far, companies are considered as institutions that can provide many benefits to the community, therefore companies have legitimacy, move freely to carry out their activities. However, over time, this company is also known as an "economic animal" who seeks maximum profit, finally it is increasingly realized that the impact it has on society is quite large and is increasingly difficult to control without responsibility [\[4, 5\]](#). The larger the size of the corporate also has an impact on the various activities of the corporate and can have a negative impact on the environment.

Lately there have been many cases of industrial pollution such as natural damage due to natural exploitation without being balanced with environmental improvements

or paying attention to the balance of the surrounding nature such as waste or factory pollution which is very detrimental to the surrounding environment.

Several cases of environmental pollution carried out by industrial companies have caused environmental issues to be in the spotlight of the public, investors and also the government. Seeing the increasingly alarming environmental conditions, today's demands on companies are getting bigger. The company is expected not only to achieve financial performance but also to achieve environmental performance and pay attention to the community around the company. This causes many industries to strive to become environmentally friendly industries because stakeholders will give appreciation to companies that have good environmental performance and give pressure or encouragement to companies that have poor environmental performance.

Environmental Performance is the organization's relationship with its environment, relating to the environmental impact of the resources used, the environmental effects of organizational cycles, the environmental suggestions of products and services, the restoration of product processing, and compliance with work environment regulations. Legitimacy theory expresses that an association will continuously operate in accordance with the boundaries and values that can be accepted by the community around the company in an effort to gain legitimacy. To gain legitimacy, companies have incentives to carry out social activities that are expected by the community.

[6] state that good environmental actors believe that disclosing good environmental performance will represent good news for the market. Environmental performance is considered by management in disclosing environmental information. According to [1] in Indonesia today, there are regulations that regulate social and environmental responsibility, namely Article 74 of Law No. 40/2007. This is done to maintain the company's reputation or so that the company can remain sustainable (going concern) and avoid various forms of community rejection.

The corporate's environmental performance can be evaluated through a program from the Ministry of the Environment, namely PROPER. The aim of the evaluation is to improve the company's performance in environmental conservation. In its yearly report, the Ministry of Environment explains that the performance assessment of the company's compliance in PROPER is performed based on the company's performance in meeting various requirements set out in the applicable laws and regulations and the company's performance in carrying out various activities related to environmental management activities. The connection between Environmental Performance and Economic Performance raises questions that have long been debated by previous researchers.

The formulation of the problem in this study is as follows: Does environmental performance through environmental disclosure affect economic performance

Literature Review

Environmental performance is a company's performance that focuses on company activities in preserving the environment and reducing environmental impacts arising from company activities [2, 7, 8] reveals that good environmental performance can be defined as the progress or achievement of a situation where the withdrawal of society from the supply of natural resources does not prevent future generations from having an equal supply.

[4] revealed that the performance benchmarks used in research may vary, depending on the indicators used, currently there are four environmental performance indicators that can be used, namely AMDAL (BOD and COD tests for wastewater), PROPER, ISO (ie ISO 14001 for environmental management systems and ISO 17025 for environmental test certification from independent institutions), and GRI

In Indonesia, the environmental performance assessment of companies is carried out by the Ministry of Environment through the Environmental Management Rating Program in companies (PROPER) [6, 7]. PROPER is also a benchmark for banks in

providing credit to debtors who are organizations that carry out business activities, especially companies that are prone to environmental damage.[4].

[7, 9] define environmental disclosure as a process used by companies to disclose information connected to company activities and their impact on the environment. Although it is mandatory in regulations by the government and financial institutions, [10] also reveal that until now there are still differences regarding the content of the disclosure itself. So that environmental disclosure is still voluntary [11].

[12, 13] states that environmental disclosure measurement way can generally be divided into two category. The first measurement technique includes measurement by quantifying environmental disclosures contained in the company's annual report based on pages, sentences, and words. The second measurement technique uses a disclosure scoring measure, in which the researcher identifies the possibility of various environmental issues, then analyzes the environmental disclosure of each issue using the index or score method. Items that get the highest score/weight reflect those environmental issues that are the most frequently informed and the highest requested by stakeholders and vice versa.

Economic performance is the relative performance of companies in the same industry which is indicated by the annual return of the industry concerned[4].According to [9] economic performance is the macro economic performance of a cluster of companies in an industry. So, economic performance is the company's performance in the economic field and is the same industry.

The success of a leader in managing a corporation is able to be seen from its financial or economic performance which is indicated by the sum of sales, labor, assets owned and ratio analysis, which is provided in the financial statements [10, 14].

Companies that have good news such as good environmental performance will increase the disclosure of their performance in the annual report with the hope that the good news will be responded positively by investors, because it reflects the company's transparency that the company is also responsible for what it has done so that it will have a positive impact on the company. improvement of the company's financial performance. Thus, good environmental performance will encourage companies to disclose the good news through environmental disclosure in the company's annual report, and environmental disclosure will affect the company's financial performance improvement.

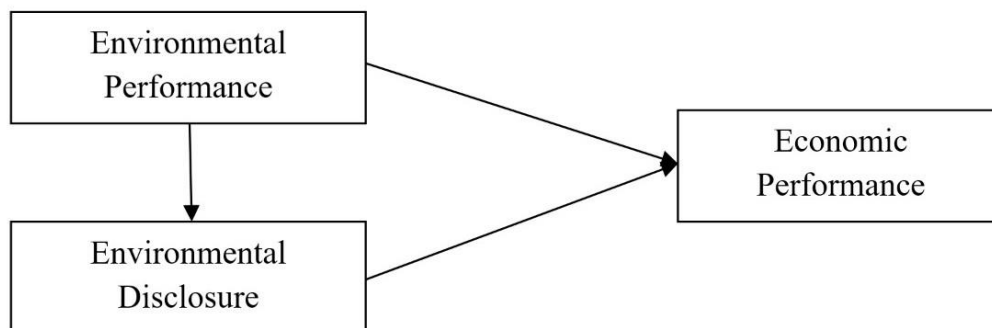


Figure 1. Research Paradigm

Materials and Methods

This study uses a descriptive and verification approach. The purpose of the descriptive approach is to describe the object of research or research results. In this study, descriptive statistical analysis was used to provide an overview or description of the independent variables in this study, namely environmental performance and environmental disclosure and the dependent variable, namely economic performance. Meanwhile, the verification method is a research method used in an effort to test the truth of the hypothesis by using statistical calculations, where in this study what will be

tested is the Effect of Environmental Performance on Economic Performance with Environmental Disclosure as an Intervening Variable.

The population in this study are manufacturing companies listed on the Indonesia Stock Exchange in the 2019-2020 period and registered as PROPER participants. In this study the sampling technique used is non-probability sampling with purposive sampling technique. The reason for choosing the purposive sampling technique is because not all samples have criteria that match the phenomenon under study. Therefore, the selection of this technique establishes certain criteria that have been adapted to the objectives or research problems. The criteria are as follows:

- Manufacturing companies listed on the Indonesia Stock Exchange (IDX) and have published their financial reports in a row during 2019-2020.
- Manufacturing companies listed in PROPER issued by the Ministry of Environment and Forestry for the period 2019-2020.
- Manufacturing companies that use the rupiah currency in their financial statements in 2019-2020.

Table 1

Sampling Criteria

Category	Amount
IDX-listed manufacturing company	193
Manufacturing companies listed on the IDX but not following PROPER	(128)
Manufacturing companies that do not use the Rupiah currency in their financial statements in 2019-2020	(21)
Number of Samples selected for 2019 and 2020 (44 X 2 years)	88

The data analysis technique in this research is descriptive analysis and path analysis. To assess the validity of the data, it is necessary to test the Classical Assumptions before conducting the path analysis. Hypothesis testing in this study was carried out in two stages, namely partial testing (t test) and calculating the Sobel test.

Results and Discussions

The following is a descriptive table for Environmental Performance, Economic Performance, Environmental Disclosure.

Table 2

Descriptive Statistics

Variable	Minimum Value	Maximum Value	Average Value	Standard Deviation
Environmental Performance	0,01000	0,42000	0,0933470	0,08642625
Economic Performance	0,40000	1,00000	0,6181818	0,09752174
Environmental Disclosure	0,22222	0,88889	0,6498336	0,13537396

From table 2, it is able to be seen that the environmental performance variable has a minimum value of 0.40000, namely a red PROPER rating, and a maximum value of 1.00000, namely a gold PROPER rating, the average value is 0.6181818, meaning that companies registered with the Ministry of Environment Living in 2019-2020 has a fairly good environmental performance because most companies obtained a blue PROPER rating with a value of 0.09752174 for standard deviation

The economic performance variable has a minimum value of 0.01000, a maximum value of 0.42000, the average value of the economic performance variable is 0.6181818, meaning that most companies have sufficient returns on assets because some companies have an ROA value above the average value. average with a value of 0.08642625 for standard deviation.

The environmental disclosure variable has a minimum value of 0.22222, namely companies that only make one disclosure about the environment in accordance with the required disclosure items and a maximum value of 0.88889, namely companies that make eight disclosures about the environment in accordance with the required disclosure items. Most of the sample companies in this study have performed well on the environment. However, they are still not interested in revealing it. Meanwhile, companies are currently recommended to make a sustainability report to make it easier for external parties to assess the company, one of which is in terms of environmental performance. This can be seen from the average value of the environmental disclosure variable of 0.6498336 while companies that disclose more than the average value of < 50%, have a standard deviation of 0.13537396.

From the results of the classical assumption test, it shows the following results:

- The results of the normality test are known that Unstandardized Residual has a probability number of 0.200. This figure is greater than the significance value of 5% or 0.05 so that the data is included in a normal distribution.

- The VIF value of the Environmental Performance and Environmental Disclosure variables is $1.044 < 10$ and the tolerance value is $0.958 > 0.1$, so the data is valid and there is no multicollinearity.

- The significance value for Environmental Performance is $0.105 > 0.05$ and Environmental Disclosure is $0.880 > 0.05$, so there is no significant occurrence so it can be concluded that the model used in this study does not have heteroscedasticity problems.

- The DW value generated from the regression model is 1.765. Meanwhile, from the DW table with a significance of 0.05 and the amount of data $(n) = 66$, and $k = 2$ (k is the number of independent variables), the dL value is 1.5395 and the dU is 1.6640 (see attachment). The results of the autocorrelation test indicate that the DW value is $1.6640 < 1.765 < 2.4605$, so it can be concluded that the data in this study has no symptoms of positive or negative autocorrelation and is acceptable.

To see the results and discussion of path analysis, it can be seen based on the following table:

Table 3

Model Summary for First Equation

Model	R	R Square	Adjusted R Square	Standar Error of Estimate
1	0,205	0,042	0,027	0,13353527

Table 4

Coefficient for First Equation

Model		Unstandardized B	Coefficients Standar Error	Standardized Coefficient Beta	t	Significant
1	Constant	0,474	0,106		4,461	0,000
	Environmental Performance	0,284	0,170	0,205	1,674	0,099

Table 5

Model Summary for Second Equation

Model	R	R Square	Adjusted R Square	Standar Error of Estimate
1	0,211	0,045	0,014	0,08580194

Table 6

Coefficient for Second Equation

Model		Unstandardized B	Coefficients Standar Error	Standardized Coefficient Beta	t	Significant
1	Constant	-0,028	0,078		-0,356	0,723
	Environmental Performance	0,183	0,111	0,207	1,643	0,105
	Environmental Disclosure	0,012	0,080	0,019	0,152	0,880

R Square in the first regression equation Environmental Performance (X_1) against Environmental Disclosure (X_2) is 0.042. This means that the Environmental Disclosure (X_2) variable can be explained by the Environmental Performance (X_1) variable of 4.2% so that the Environmental Disclosure (X_2) variable that is not explained by the Environmental Performance (X_1) variable is $e_1 = \sqrt{1 - 0,042} = 0.958$.

R Square in the second regression equation Environmental Performance (X_1) against Environmental Disclosure (X_2) against Economic Performance (Y) is 0.045. This means that the Economic Performance (Y) variable can be clarified by the Environmental Performance (X_1) and Environmental Disclosure (X_2) variables of 4.5% so that the Variable Economic Performance (Y) variable that is not clarified by the Environmental Performance (X_1) and Environmental Disclosure (X_2) variables is $e_2 = \sqrt{1 - 0,045} = 0.955$.

Unstandardized coefficients in the first equation Environmental Performance (X_1) against Environmental Disclosure (X_2) are 0.284 with a significance of 0.099. This means that there is no effect of Environmental Performance (X_1) on Environmental Disclosure (X_2).

Unstandardized coefficients in the second equation Environmental Performance (X_1) against Economic Performance (Y) are 0.183 with a significance of 0.105. This means that there is no effect of Environmental Performance (X_1) on Economic Performance (Y).

Meanwhile, the Unstandardized Coefficients of Environmental Disclosure (X_2) on Economic Performance (Y) are 0.012 with a significance of 0.880. This means that there is no effect of Environmental Disclosure (X_2) on Economic Performance (Y).

The path analysis equation model utilized in this review is as follows:

$$\begin{aligned}
 X_2 &= \rho X_1 X_2 + e_1 \dots \dots \dots \text{substructural 1} \\
 X_2 &= 0,284X_1 + 0,958 \\
 \text{Environmental Disclosure} &= 0,284 \text{ Environmental Performance} + 0,958 \\
 Y &= \rho YX_1 + \rho YX_2 + e_2 \dots \dots \dots \text{substructural 2} \\
 Y &= 0,183X_1 + 0,012X_2 + 0,995 \\
 \text{Economic Performance} &= 0,183 \text{ Environmental Performance} + 0,012 \\
 &\text{Environmental Disclosure} + 0,955
 \end{aligned}$$

If described in the form of a diagram, then the substructural equations 1 and 2 will look as follows:

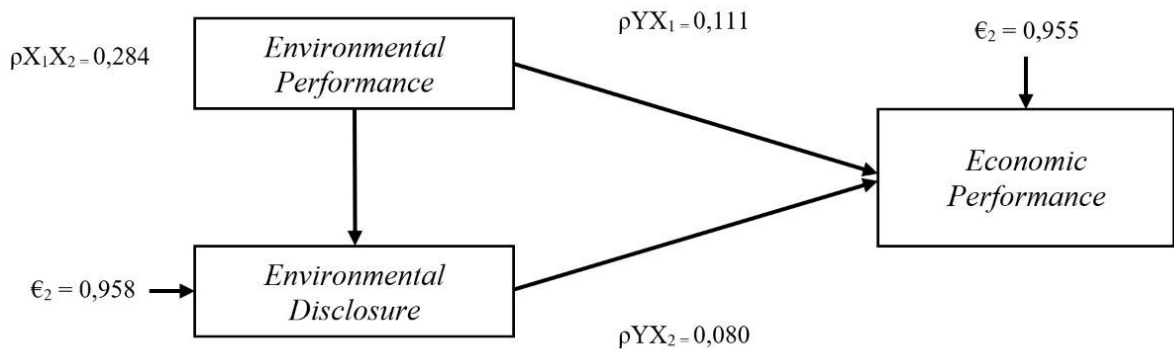


Figure 2. Path Analysis Equation

The results of the t test and Sobel test are as follows:

- Significance value for Environmental Performance on Environmental Disclosure is $0.099 > 0.05$ and the t count is $1.674 < t$ table 1.998 . So there is no influence of Environmental Performance on Environmental Disclosure.

- Significance value for Environmental Performance to Economic Performance is $0.105 > 0.05$ and the t value is $1.643 < t$ table 1.998 . The significance value for Environmental Disclosure on Economic Performance is $0.880 > 0.05$ and the t count value is $1.152 < t$ table 1.998 . So there is no influence of Environmental Performance and Environmental Disclosure on Economic Performance.

- The results of the calculation of the t-value from the Sobel test show the t-table value with a total of $n = 66$ and $\alpha = 0.05$, the t-table value is 1.99834 . The calculated t value is smaller than the t-table value, which is $0.128 < 1.658$.

In the era of the covid-19 pandemic, Environmental Performance does not affect Environmental Disclosure, nor does it affect Economic Performance either directly or through Environmental Disclosure. In general, the Environmental Performance is quite good, but it is not able to improve the company's profitability. This is due to the massive impact of the pandemic causing the weakening of the national economic growth rate, thus affecting the manufacturing industry in Indonesia.

Conclusion

- Companies registered with the Ministry of Environment in 2019-2020 have a fairly good environmental performance because most of the companies received a blue PROPER rating.

- Most companies have sufficient returns on assets because some companies have ROA values above the average value, although there is a decrease compared to several years before 2019.

- Companies that make eight disclosures about the environment in accordance with the required disclosure items. Most of the sample companies in this study have performed well on the environment.

- In the era of the covid-19 pandemic, Environmental Performance does not affect Environmental Disclosure, nor does it affect Economic Performance either directly or through Environmental Disclosure.

References

1. Sari, W.H., H. Agustin, and E. Mulyani, *Pengaruh Good Corporate Governance Dan Kinerja Lingkungan Terhadap Pengungkapan Lingkungan*. Jurnal Eksplorasi Akuntansi, 2019. **1**(1): p. 18-34 DOI: <https://doi.org/10.24036/jea.v1i1.53>.
2. Heriningsih, S. and N. Saputri, *Pengaruh Corporate Social Responsibility Disclosure dan Environmental Performance Terhadap Economic Performance pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia*. Jurnal Ekonomi Dan Bisnis, 2015. **10**(1).

3. Lancaster-Thomas, A., *Encountering evil: The Evil-god challenge from religious experience*. European Journal for Philosophy of Religion, 2019. **12**(3) DOI: <https://doi.org/10.24204/ejpr.v0i0.2617>.
4. Lindrianasari, L., *The relationship between environmental performance and the quality of environmental disclosure with the economic performance of companies in Indonesia*. Jurnal Akuntansi Dan Auditing Indonesia, 2007. **11**(2): p. 159-172.
5. Lancaster-Thomas, A., *The Coherence of Naturalistic Personal Pantheism*. European journal for philosophy of religion, 2020. **12**(1): p. 75-89 DOI: <https://doi.org/10.24204/ejpr.v0i0.2617>.
6. Jahn, D., *Sustaining Abundance. Environmental Performance in Industrial Democracies*. 2004, JSTOR.
7. Spica, L. Dwi Wijayanto. 2007. "The Influence of Environmental Performance and Environmental Disclosure on Economic Performance".
8. Launonen, L., *Cognitive Regeneration and the Noetic Effects of Sin: Why Theology and Cognitive Science May Not Be Compatible*. European Journal for Philosophy of Religion, 2021. **13**(3) DOI: <https://doi.org/10.24204/ejpr.2021.3398>.
9. Sulistiawati, E. and N. Dirgantari, *Analysis of the Effect of Green Accounting Implementation on Profitability in Mining Companies Listed on the Indonesia Stock Exchange*. Jurnal Reviu Akuntansi Dan Keuangan, 2016. **6**(1) DOI: <https://doi.org/10.22219/jrak.v6i1.5082>.
10. Wulandari, R.D. and E. Hidayah, *Effect of environmental performance and environmental disclosure on economic performance (Study on manufacturing companies listed on the Indonesia Stock Exchange for the period 2009-2011)*. Ekbisi, 2013. **7**(2).
11. Alvionita, C., B. Semmaila, and A.N. Nur, *Pengaruh Corporate Social Responsibility, Kinerja Lingkungan dan Struktur Kepemilikan Terhadap Nilai Perusahaan*. PARADOKS: Jurnal Ilmu Ekonomi, 2021. **4**(2): p. 416-430.
12. Al-Tuwaijri, S.A., T.E. Christensen, and K.E. Hughes Ii, *The relations among environmental disclosure, environmental performance, and economic performance: a simultaneous equations approach*. Accounting, organizations and society, 2004. **29**(5-6): p. 447-471 DOI: [https://doi.org/10.1016/S0361-3682\(03\)00032-1](https://doi.org/10.1016/S0361-3682(03)00032-1).
13. Lavazza, A., *An Evolutionary Explanation for Change in Religious Institutions*. Journal for the Philosophy of Science, 2012. **63**(3).
14. Hasker, W., *The Trinity and the New Testament—a Counter-Challenge to Dale Tuggy*. European Journal for Philosophy of Religion, 2021. **13**(1).