

## The effect of implementing environmental disclosure in Manufacturing Companies

Syalia Masarrah\*, Mirna Nisfaul Laili, Avi Sunani, Ulfa Puspa W. Widodo, Muh. Syah Arief A. Wijaya

Faculty of Economics and Business, Universitas Pembangunan Nasional "Veteran" Jawa Timur, Surabaya 60294, Indonesia

\*Corresponding author:

E-mail:

21013010280@student.upnjatim.ac.id

### ABSTRACT

Environmental disclosure is a useful tool for evaluating a company's environmental performance. Environmental performance is impacted by environmental disclosure. Information on the environment that is included in the company's annual report is also considered environmental disclosure. The financial statements of the company, performance reports, and information about the company's capital or share circulation are just a few of the sources or supporting resources that are required to bolster this review. This study's methodology is a literature review that draws on qualitative data from 15 worldwide journals or papers. The findings demonstrate that, depending on which areas are benefited and which are not, environmental performance can have a favorable or negative impact on the business. However, if disclosure is given, it will indicate the general state of the business, whether it is doing well or not. Investor trust may be lowered and the company's reputation may suffer if there are instances of abnormal behavior. Because of this, experts advise businesses to enhance their corporate culture, rules, and procedures prior to disclosing any environmental information.

*Keywords: Environmental disclosure, Environmental performance, System, Policy*

### Introduction

Businesspeople play a pivotal role in bringing forward novel strategies for environmental sustainability. As methods for fostering entrepreneurship, business plan competitions (BPC) are crucial (Fichter & Tiemann, 2020). Additionally, they discovered that a few distinct BPC characteristics positively influence how much sustainability objectives are integrated and how new business ventures are taken into account. Because of the need to reduce the influence of industrial production on global warming, developed countries have focused a great deal of empirical research on the relationship between pollution control and industrialization. By disclosing environmental protection information, a business can benefit from increased competitiveness and reputation as well as the provision of environmental data to external stakeholders.

The interplay between economic and environmental activity gives rise to environmental concerns. The influence on environmental degradation increases with severity (Idris, 2012). As such, environmental concerns should be taken seriously and call for parties to act responsibly. Thus, it is imperative to evaluate a company's environmental performance, which is quantifiable through environmental disclosure. According to Jacobs et al. (2010), a company's environmental performance can have an impact on its image. Businesses with a poor reputation will see a decline in the value of their assets if they decide to sell their shares to the general public since investors will view them as carrying a significant risk. The market and community are involved in observing how the corporation manages its environmental impact. To stay in business, companies must engage with the public and build a solid reputation in the marketplace. A corporation's ability to operate comfortably depends on the community's social

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permission. In the event that social permission is lost, the firm may have to incur significant resources in order to resolve unfriendly relations with the community. Dealing with societal concerns associated with inadequate environmental management can occasionally take up resources such as time, energy, and assets that should be allocated to profit-making operations inside the organization. If poor environmental management causes the organization and its personnel to become estranged from their social surroundings, this will undoubtedly cause discomfort.

### Material and Methods

This research uses primary research sources in the form of literature and articles from previous studies. The literature used has a correlation with the research focus, namely related to environmental disclosure and its application in manufacturing companies in various countries. Sources of articles that are used as material in this study can be seen in the following Table 1:

Table 1. Article sources

No.	Article sources	Institution
1.	Springer	Springer Nature
2.	Environment and Development Economics (EDE)	Cambridge University Press
3.	Elsevier	RELX Group
4.	Business Strategy and Environment	Wiley Online Library
5.	International Journal of Logistics Research and Applications	Taylor & Francis Group
6.	Journal of King Saud University	King Saud University

The amount of articles used in this research is approximately fifteen articles derived from the source of the articles in Table 1. In examining each article used as research material, researchers used a literature review scheme to compare previous research with other studies with the same context but from different perspectives. Then, from the results of the comparison, the researcher will look for similarities and differences from each study looking at the aspects of the variables studied, the scope, sources, materials, methods, results, and conclusions of the study.

### Methods

This research focuses on the object of manufacturing companies and environmental disclosure. Using research sources based on literature, the method used is a qualitative research method, so the research data needed is qualitative research data which contains data expressed in the form of sentences, expressions, narratives, and images (Sutama, 2016: 198). The type of qualitative research applied in this research is Historical Research. Historical research is a type of research that focuses on events or objects that occurred in the past with a normative and interpretative approach (Nasution, 2023). The purpose of this research is to reconstruct coherently and systematically events that have occurred and been studied before, so this research will focus more on data written or observed by others and will be the main basis for the results of this research. In addition, to determine which data can be used and has a value that can fulfill this research, it is determined through internal criticism and external criticism. Internal criticism is a verification process of the credibility or truth of a source found, while external criticism is more about the verification process of the validity or authenticity of the sources found.

### Results and Discussion

#### CSR disclosure

CSR disclosure, which can also be called social disclosure, has an influence on manufacturing companies. CSR disclosure is very important to know how far the company in taking social responsibility and corporate attention in running a business (Putra & Wirakusuma, 2015). CSR

disclosure is used to provide information aimed at interested parties. This indicates that the ability of earnings to capture the implications of CSR is lower, whether the company is still in the early stages of CSR or in a defensive position that can make an overvaluation of the potential benefits of CSR spending (Kim, et.al, 2017). Manufacturing companies can increase market confidence in the company's products so that the company's status is getting better in the eyes of the market.

### **Capital Structure**

Companies spend a lot of their capital to pay the operational burden or if there is a loss to the company. In, Pietro Bonetti's research revealed that companies that disclose carbon emissions experience lower capital cost increases compared to companies that do not (Bonetti, 2023). It is also supported by research from Fahmida Akhter who found that there was an exponential increase in growth in the corporate economy over environmental disclosure (Akhter, 2022). In the end, environmental disclosure has a positive impact on the economy and capital structure of a company.

### **Profitability**

Many manufacturing companies in different parts of the world are feeling the positive impact of their environmental disclosure. The results of the study explained that countries in the world have a lot of rules regarding sanctioning companies that commit environmental violations so that companies that implement good and informative environmental disclosure can avoid such sanctions and a benefit for companies because they do not have to pay the sanctions (Ding, 2021). This profitability is also supported by a country's policy. A stronger state of rules makes companies rather stressed because all companies collectively have to disclose their environmental performance, but the fact is that a country that is not too absolute of rules and is individualistic is easier to disclose their corporate environmental performance (Lu & Wang, 2021).

### **Technology Information Capabilities**

In applying and disclosing environmental performance, an enterprise must have the ability to produce clear, reliable, or factual information, and adapt to actual conditions. It also needs to be supported by information technology capabilities. When companies want to implement environmental disclosure practices, they need to be equipped with sufficient technical capabilities to build systems or networks that can inform the general public or public (Ullah & Wu, 2022).

Table 2. Literature review

No	Author (s) years	Title	Method	Result
1	Lu & Wang (2021)	Corporate governance, law, culture, environmental performance	Sample firms included in the Sustainalytics database between 2010 and 2017 globally.	Companies in countries with low power distance, feminine, high uncertainty avoidance, and long-term orientation-incoming culture have better environmental performance and disclose more CSR information; companies in individualistic cultures perform better in environmental terms, but companies in collectivistic cultures reveal more CSR information; companies in controlled countries tried to disclose more CSR information

			but did not show significant improvements in environmental performance.
2	Haris, et al. (2022)	Does Environmental Disclosure and Instagram Engagement Affect Firm Performance? The Moderating Role of the Board's Gender Diversity	Secondary data from 57 companies is used in this study. The company's annual reports or sustainability reports provided information on environmental disclosure, board of gender diversity, and accomplishments; Socialblade provided data on company Instagram interaction.
3	Ding and Shahzad (2021)	Effect of Environmental Penalties on the Cost of Equity – The Role of Corporate Environmental Disclosures	The business under investigation is in the manufacturing sector, which has a greater environmental impact and generates more waste pollution than other industries. We acquired EID information from listed corporations' environmental and CSR filings.
4	Lin & Qamruzaman (2023)	The Impact of Environmental Disclosure and The Quality of Financial Disclosure and IT Adoption on Firm Performance: Does Corporate Governance Ensure Sustainability?	To gather data, secondary data sources such as target financial institution annual reports, economic review reports, and publications from central banks were consulted. Several econometric approaches have been used to record the elasticities of the explanatory variables and their empirical relationship to company performance.
			Gender diversity as measured by the percentage of women on the total directors on the board does moderate the relationship between Instagram engagement and company performance positively. These findings are by gender stereotype theory, there are socialized expectations regarding behavior, emotions, work, and roles that are appropriate for men and women.
			Perhaps the best approach to financing for businesses is to enhance reports on the environment. We also have two insights from the perspective of environmental policy. First, equity financing is harmed by administrative environmental fines. Second, corporate stock funding can be negatively impacted by environmental consequences, which serves as a deterrent to corporations engaging in illegal environmental conduct. This further demonstrates the positive impact of administrative environmental consequences in reducing environmental infractions and pollution.
			The results of this study imply that investor protection, information symmetry, and financial services accessibility promote and maintain the firms' success. The study found that corporate governance has a mediating role that positively promotes the improvement of financial performance. The study made the theoretical claim that financial officials ought to consider integrity and fairness when releasing information to the public. Initiating

			enforcement is necessary to guarantee sound governance.
5	Latif et al. (2020) The Influence of Board Diversity on Environmental Disclosures and Sustainability Performance in Malaysia	This research is based on 100 randomly selected industrial product companies listed on Bursa Malaysia. The number of samples selected is consistent with the minimum sample size table suggested by Kerjcie and Morgan (1970).	The results of this study provide useful observations on the relationship between board attributes and company characteristics about ER disclosure and sustainability performance.
6	Almaqtari et al. (2022) The impact of corporate environmental disclosure practices and board attributes on sustainability: Empirical evidence from Asia and Europe	Information from panels covering a sample of 8,094 listed firms in Asia and Europe between 2016 and 2021 is used in this study. The Refinitiv Eikon database was the source of the data needed for this study. The results of this study are obtained by the analysis of panel data with an established effect model.	Research indicates that while emissions and innovation have a small and negative influence on sustainability indicators, resource use disclosures have a substantial and beneficial effect on a company's environment and the effectiveness of ESG. Additionally, this study demonstrates that the environmental performance and ESG pillars of these businesses are significantly and favorably impacted by media coverage of environmental issues related to their environmental performance.
7	Zhang et al. (2023) Effect of analysts' earnings pressure on environmental information disclosure of firms: Can corporate governance alleviate the earnings obsession?	The study uses a technique of gathering data that focuses on the following: (1) the pressing demand for Chinese businesses to show more environmental information due to the major environmental issues resulting from the country's rapid economic expansion. life; (2) There are wide variations in the corporate governance of China's listed businesses, which helps us comprehend how ownership structure and board makeup influence how analysts' inclination to present environmental information is restrained. Robustness testing, regression analysis, correlation analysis, and descriptive	Additional research provides empirical support for the hypothesis that corporate governance, including how companies are owned and board composition, may be able to lessen the detrimental impact of analyst profit pressure on environmental data disclosure. The expanding stock holdings of the largest and most pressure-sensitive institutional investors, in particular, greatly increase the negative impacts of analyst profit pressure on environmental disclosure. Conversely, though, the detrimental impact of analyst earnings pressure on the disclosure of environmental data is mitigated by a larger proportion of unbiased securities directors.

			statistics are used to evaluate this.
8	Bonetti et al. (2023)	Environmental Disclosure and the Cost of Capital: Evidence from the Fukushima Nuclear Disaster	<p>To ascertain whether or not corporations disclosed emissions of carbon data in 2009, this research gathered about 4,126 observations from 392 companies between 2002 and 2013. Next, the data was compared using entropy balance.</p> <p>Research indicates that companies with transparent carbon footprints show a decrease in capital expenditure increases compared to those without. Furthermore, the data that the researchers have provided shows a link between the impact of carbon emissions disclosures on capital cost disclosures rather than prospective regulatory expenses and their relevance to a firm's sensitivity to energy shortages. Finally, we find that companies that did not disclose their carbon emissions before the crisis had more robust reactions when they do so after a crisis.</p>
9	Latif et al. (2020)	The Influence of Board Diversity on Environmental Disclosures and Sustainability Performance in Malaysia	<p>The impact of growth, profitability, board composition, and size on the level of environmental reporting disclosure (ER score) is investigated in this study through the use of stepwise or multilevel Tobit regression analysis with strong standard errors calculated. Next, OLS regression with robust standard errors is used to assess the effect of ER Rating on performance for sustainability.</p> <p>The impact of relevance on ER disclosure may also be influenced by other factors. In order to better explain ER disclosure in the future, researchers should focus on enhancing additional explanatory corporate governance variables, such as the ownership, professional background/education of directors, and the dual roles of CEO and Muslim chairman. It is advised that the model incorporate additional company explanatory variables such as capital gains and registration age. These restrictions make it more difficult for academics to examine the variables that may determine ER disclosure in light of the most recent laws passed by the Malaysian government.</p>
10	Nassreddine (2021)	Structural analysis of factors influencing environmental disclosure	<p>A computer-assisted deep learning technique called interpretive structural modeling (ISM) assembles a collection of closely related but disparate parts into a systematic model. The ISM approach, which is</p> <p>This study shows that board independence, gender diversity, and profitability are the main forces for the release of environmental information. These findings suggest that having more women on firm boards of directors is one of</p>

			based on professional judgment, is helpful in determining contextual relationships between factors and concentrating on different approaches. managerial, ideation, nominal approach, and so on. The aim of this research is to ascertain the context in which Saudi Arabian banking industry advocates and specialists engage with the academic experts they consult.	the essential elements of business governance—that is, one that may be more aware of environmental issues and more focused on reducing risk perceptions.
11	Baalouch et al. (2019)	et al. A study of the determinants of environmental disclosure quality: evidence from French listed companies	This study uses descriptive statistical measuring approaches to determine the dependent variable, which is how good environmental reports and independent reports. Furthermore, the Pearson correlation matrix related to the quality of environmental disclosure with independent components is analyzed by univariate analysis. Throughout a six-year study period, the correlation was computed using longitudinal and pooled data. The F statistical model with R2 is being evaluated in the interim.	The researchers discovered that third-party verification significantly contributed to raising the caliber of environmental information. Neo-institutional theory sheds light on these findings by demonstrating that companies typically abide by normative requirements imposed by regulators to ensure the veracity and openness of the information disclosed and to fortify the confidence of significant stakeholders. Moreover, the researchers' analysis demonstrates that diversity affects the caliber of environmental knowledge and is enhanced by the participation of female members and independence on the panel.
12	Gerged (2020)	et al. Does the quality of country-level governance have an impact on corporate environmental disclosure? Evidence from Gulf Cooperation Council countries	Regression analysis, univariate and bivariate statistics, and empirical analysis are used in this study. Unweighted and weighted disclosure indices are utilized to determine the relationship between the indicators.	Three factors were confirmed by researchers. The three that we chose—VA, GE, and CC—have the ability to explain variation in CED in a sample of five GCC nations where information sharing has risen but is still restricted.
13	Emeke (2021)	et al. Effect of Social and Environmental Disclosure on the Performance of Listed Consumer Goods Producing Companies in Nigeria	To test developed hypotheses, correlation, and regression analysis techniques are employed. To find the model's predictive	That the performance of manufacturing companies listed on the NSE is unaffected by social and environmental disclosures. This might be a result of stakeholders' awareness of

- qualities, double linear regression analysis is used. The best estimation method to use between fixed effect, random effect, and pooled ordinary least square regression was determined using the Hausman test. To validate Hausman's findings, the Breusch-Pagan test was also performed. The diagnostic checks are run to make sure the model is compatible. The model residual consistency was tested using the Breusch-Pagan/Cook Weisberg test for heterocedicity.
- the disclosure of social and environmental data as well as the data's appearance in annual reports and company accounts. Information has no value unless it is appropriately interpreted and used by the relevant parties to make decisions. The long-term history of the sample company has provided them with a competitive edge, raised profitability, and established a large market share. This is evidenced by the considerable beneficial influence of the company's age and size on profit per share.
- 14 Akhter et al. (2022) Environmental disclosures and corporate attributes, from the lens of legitimacy theory: a longitudinal analysis on a developing country  
With a quantitative research method with regression analysis performed with EDI as an independent variable.  
There are some managerial ramifications to this research. Approximately half of the sample businesses report habitat information in financial, qualitative, or narrative forms, according to trends in habitat disclosure. Compared to the preceding ten years, when the average reporting rate was 2.23%, this percentage has grown exponentially over the last five years. (2016) Bose et al.
- 15 Ullah and Wu (2022) How green-friendly practices and environmental disclosure affect the technological capability of the form  
Often called mixed models, hierarchical linear models, or staged models, quantitative techniques using random effect regression models are becoming more and more common in business research (Beck & Katz, 1995) and economics (O'Connell & McCoach, 2008).  
The results we find highlight the significance of environmentally friendly practices to technological skills, which has implications for policymakers and regulators in developing countries that are striving to develop environmentally suitable practices for new market growth. Consequently, it is critical for businesses to establish environmentally friendly practices in order to integrate technical capabilities. There are several methods in which businesses might implement policies promoting environmentally friendly behavior. On one side, organizations will consider the needs of the



community that within they operate and create a unique method to address the issues facing the neighborhood.

## Conclusion

We can conclude that, depending on which aspects are benefited and which are not, the corporation may experience a favorable or negative impact from the disclosure of environmental performance. A corporation that discloses environmental information is, on the one hand, viewed as being truthful, compliant, and receptive to the financial and non-financial circumstances that exist within the organization. This can boost the company's value and win over regulators and investors. On the other hand, if information is shared, everyone will be able to observe the company's overall state, good or poor. Investor trust may be lowered and the company's reputation may suffer if there are instances of abnormal behavior. Researchers advise that rather than disclosing environmental information right away, each corporation should work to enhance its corporate culture, rules, and procedures.

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