

Governance and Management Accounting: Board Size, Environmental Committee, and Audit Committee on Environmental Performance

Retnoningrum Hidayah¹ ✉, Dwi Ratmono²

¹Doctoral Program in Economics, Faculty of Economics and Business, Universitas Diponegoro,
Semarang, Indonesia

²Department of Accounting, Faculty of Economics and Business, Universitas Diponegoro,
Semarang, Indonesia

DOI: <http://dx.doi.org/10.15294/jda.v17i1.15318>

Submitted: October 22nd, 2024 Revised: December 2nd, 2024 Accepted: February 28th, 2025 Published: March 24th, 2025

Abstract

Purposes: This research explores how the board and environmental committee impact environmental performance in Indonesia, with the audit committee serving as a moderating factor.

Methods: The study draws data from annual reports of mining and manufacturing firms for the period 2019-2023. Thus, the total panel data in this study is 115 analysis units. This study uses Moderating Regression Analysis (MRA) with SPSS 26.

Findings: Environmental disclosure is a key metric to assess environmental performance. Therefore, this study finds that the board's influence on environmental disclosure is not statistically significant. Then, the environmental disclosure could moderate the impact of the environmental committee on environmental disclosure. This study reveals that audit committees weaken the interaction between environmental committees and environmental disclosure. However, the audit committee failed to moderate the interaction between the board and environmental disclosure.

Novelty: The high demands of society for environmental disclosure have put pressure on companies. As a result, companies take various inappropriate actions by presenting environmental disclosures that do not follow corporate behavior. Based on this background, this study investigates how corporate performance and corporate governance practices, including the board, environmental committee, and audit committee. This study is essential because the audit committee is critical in improving good corporate governance.

Keywords: Audit Committee, Board Size, Environmental Committee, Environmental Disclosure, Performance.

How to cite (APA 7th Style)

Hidayah, R. & Ratmono, D. (2025). Governance and management accounting: Board size, environmental committee, and audit committee on environmental performance. *Jurnal Dinamika Akuntansi*, 17(1), 1-15. <http://dx.doi.org/10.15294/jda.v17i1.15318>

INTRODUCTION

The change in the paradigm of society has encouraged companies to change their business focus. A company that only focuses on financial performance switches to adding a new focus on financial and environmental performance. One of the environmental performance measurements is environmental disclosure. Therefore, one of the factors that supports this good environmental

Corresponding Author (✉)

E-mail: retnoningrumhidayah.undip@gmail.com

performance is governance. Good corporate governance is essential for corporate sustainability. Many companies are under pressure from the public to care about the environment. One of them is the increasing demand for transparent environmental disclosure. The rampant cases of environmental pollution by companies have become a particular concern for the countries. The Environmental Performance Index (EPI) uses performance indicators to determine the extent of the return on investment in environmental control. Indonesia's Environmental Performance Index (EPI) ranked 164th out of 180 nations in 2022 (Suryaputra et al., 2024). This condition indicates that environmental disclosure is still very minimal. In addition, environmental disclosure looks like a burden for management, which makes the level of disclosure deficient (Yanto & Maulia, 2020). Companies are still reluctant to provide sound environmental management. Therefore, the demand for environmental disclosure by companies is significant. Disclosure is one of the obligations that every company must fulfil.

The regulation in Indonesia that governs sustainability is the Financial Services Authority Regulation Number 51/POJK.03/2017 (POJK51) governs the implementation of sustainable finance for financial service institutions, issuers, and public companies. This regulation mandates that these entities integrate sustainable finance principles into their business operations and submit sustainability reports. One of the things reported in the sustainability report is sustainability performance. Environmental disclosure can inform stakeholders about the risks faced by the company and how it impacts stakeholders. In addition, the Financial Services Authority Regulation Number 29 / POJK.04 / 2016 concerning the Annual Report of Issuers or Public Companies, Article 4 states that the annual report must explain the company's social and environmental responsibility activities. However, based on the Asia-Pacific EPI, Indonesia is ranked 20th out of 25 countries (Block et al., 2024). This condition shows Indonesia's fragile position in terms of environmental disclosure.

In addition, environmental disclosure practices do not always reflect the actual conditions of the company. Companies sometimes use environmental disclosure to give a positive impression regarding company management. In other words, sometimes, environmental disclosure is carried out in the context of manipulative efforts, where management displays something beautiful without an actual form—for example, PT. Ultra Jaya never discloses the pollution the company has carried out included in the annual report and sustainability report. However, it turns out that there are cases of pollution, one of which is the case in Gadobangkong Village, West Bandung Regency, Indonesia. In 2017, residents of Gadobangkong Village felt uncomfortable because the smell of milk waste was getting stronger, and the air contained waste, causing itching and nausea (Yanto & Maulia, 2020). This company had a good profit in 2017 and made good reports related to environmental aspects (Fadilah, 2021). From the report, it seems that everything is fine. Therefore, it is necessary to research how corporate governance, like boards, environmental committees, and audit committees, impacts environmental disclosure.

There are some reasons this research was conducted in Indonesia. First, the governance structure in this country is unique. Indonesia adheres to a two-tier system even though neighbouring countries such as Singapore, Malaysia, Australia, and Papua New Guinea adhere to one-tier. Furthermore, countries in the ASEAN region also adhere to the one-tier system, except for Indonesia, Laos, and Cambodia. Two increasingly stringent regulations related to environmental reporting, such as the Job Creation Law, POJK No. 51/2017 concerning sustainable finance, and the obligation to report sustainability, create opportunities to examine how companies respond to evolving regulations. Third, global investors are increasingly paying attention to environmental, social, and governance (ESG) disclosure, including in Indonesia. Numerous companies on the Indonesia Stock Exchange (IDX) have started implementing GRI (Global Reporting Initiative) and the Task Force on Climate-related Financial Disclosures standards. However, the implementation and quality of reports still vary, opening up a gap for more profound research. Fourth, in Indonesia, there are indications that several companies are greenwashing or reporting that it is only cosmetic without actual implementation. This is interesting to study to measure transparency and honesty

in environmental reporting. Five, there is a gap with other ASEAN countries where Singapore, Malaysia, and Thailand still dominate research on environmental disclosure in ASEAN. However, Indonesia, as the largest economy in ASEAN, has characteristics such as more diverse levels of compliance and unique regulatory pressures that have not been widely touched upon. Hence, this study examines the audit committee's role in relation to the board, environmental committee, and the transparency of environmental governance.

This research uses agency, stakeholder, social exchange, and upper-echelon theories. Upper-echelon theory believes that top management has a significant role in determining company policy, including environmental disclosure (Hambrick, 2007). In addition, companies must be able to demonstrate their existence to the broader community. Hence, board size has an impact on environmental disclosure. Moreover, companies that carry out environmental disclosure will gain more sympathy and trust from the public. Therefore, environmental disclosure allows companies to demonstrate their commitment (Ofoegbu et al., 2018). Environmental disclosures made by companies can be different from each other. Borrowing concept from social exchange theory believes a group has a social relationship that tends to be structured around profit and loss. This condition refers to how the audit committee tries to control the information disclosed to the public by the environmental committee to avoid reputational risk and adverse market reactions. Therefore, it must be ensured that implementing environmental disclosure as a benchmark for environmental performance benefits the company.

From the stakeholder theory perspective, it is believed that companies must be able to accommodate the needs of all stakeholders (Freeman, 1984). This environmental disclosure is a key instrument for addressing stakeholder needs. Apart from that, environmental disclosure shows how brilliantly the company is doing. Stakeholder theory believes environmental disclosure plays a crucial role in decision-making for investors and other stakeholders (Yanto & Maulia, 2020). According to stakeholder theory, companies are expected to address the interests of all stakeholders. Meanwhile, agency theory suggests the presence of information asymmetry between the principal and the agent. Hence, environmental disclosure can minimize the asymmetry of information.

The audit committee plays a crucial role in enhancing environmental disclosure. One significant factor influencing environmental disclosure is the resources owned. Based on resource-based theory, companies' management depends on the resources they have (tangible and intangible assets) (Barney, 2014). Intangible assets can be interpreted as human resources who have minds. Therefore, the existence of board size is one of the elements that influence environmental disclosure. Board size is one of the determining factors in environmental disclosure. The number of board members can significantly influence the company's decision-making process. In addition, an adequate board size can improve the effectiveness of corporate governance, which ultimately impacts environmental disclosure (Dao & Ngo, 2020). Prior research explains that the relationship between the home region of the board of directors has a different impact on environmental disclosure carried out by management. A larger board size can increase environmental disclosure (Akbas, 2016; Khaireddine et al., 2020; Menicucci & Paolucci, 2022).

Furthermore, environmental committees have been shown to enhance environmental disclosure (Dixon-Fowler et al., 2017). The duties of the environmental committee are centered around environmental management and disclosure. It also aligns with the legitimacy theory, which posits that companies must demonstrate their existence to the public. Environmental disclosure serves as one such demonstration. It is important to note that not all companies have an environmental committee. Some companies have a sustainability committee but have the same duties as the environmental committee. This is evident from the existing research that the presence of the Sustainability Committee positively affects environmental disclosure (Pinheiro et al., 2023). However, environmental committees are also perceived as incapable of guaranteeing environmental disclosure by companies (Tingbani et al., 2020). The lack of extensive research on

the link between environmental committees and environmental disclosure highlights the need for further study.

Another key factor is the audit committee's role. The audit committee has an oversight role in the company. However, the existence of the audit committee has so far received less attention. The audit committee is a party that bridges internal and external interests. The Sarbanes Oxley Act (2002) states that the audit committee oversees financial reporting quality and plays a central role in corporate governance reform (Shankaraiah & Amiri, 2017). Corporate governance mechanisms involving audit committees can provide benefits for minimising information asymmetry (Cheynel & Levine, 2020; Nasution et al., 2020). Moreover, this mechanism can reduce the existence of self-interest management in reporting disclosures (Buallay & Al-Ajmi, 2020). Based on the social exchange theory, a proactive audit committee that supports transparency will strengthen the relationship between board size and the environmental committee towards environmental disclosure. When the audit committee prioritizes financial reporting and protecting the company's reputation, the audit committee will weaken the connection between board size and the environmental committee towards environmental reporting and transparency.

Several studies have used audit committees as a moderating variable (Fuadah et al., 2022; Sari et al., 2023). However, research on audit committees as a moderation in the research on the impact of board size and the environmental committee on environmental disclosure remains limited. Therefore, this study examines the audit committee's role in environmental disclosure. This research incorporates the audit committee as a moderating variable. It aims to use the audit committee as a moderating variable. This study provides new insights into the audit committee's interaction and the relationship between board size, environmental committee, and environmental disclosure.

Earlier research has explored the connections between various characteristics of the corporate governance framework and environmental disclosure with different results (Akbas, 2016; Digdowiseiso et al., 2022; Vig, 2024; Wang & Sun, 2022; Welbeck et al., 2017; Yanto & Maulia, 2020). Board size positively correlates with environmental disclosure in Indonesia (Akbas, 2016; Amalia et al., 2022). However, large board size significantly negatively impacts environmental disclosure in Kenya (Tarus, 2020). Research on the environmental committee has been conducted, but inconsistent results remain. The environmental committee affects the level of environmental disclosure (Liao et al., 2015; Peters & Romi, 2014). However, other studies confirm no significant relationship between the environmental committee and environmental disclosure (Odoemelam & Okafor, 2018).

For the audit committee variable, it has no relationship to environmental disclosure (Biçer & Feneir, 2019). Other studies recognise that the audit committee plays a role in influencing environmental disclosure (Chariri et al., 2017; Hanjani & Kusumadewi, 2023). According to agency theory, ownership and control are separated between the principal and agent (Jensen & Meckling, 1976). Hence, companies are advised to have good governance to achieve company goals. The alignment of goals between agents and principals will reduce agency costs. An adequate number of board members will enable the resolution of conflicts between principals and agents regarding environmental disclosure. These studies believe board size positively correlates with environmental disclosure, indicating that larger boards are more likely to disclose environmental information than smaller ones (Khairreddine et al., 2020; Ofoegbu et al., 2018; Velayutham et al., 2017; Welbeck et al., 2017). A large board size allows the company's management to be examined closely.

The large number of directors can improve the quality of environmental disclosure. Based on upper echelon theory, it is argued that top management characteristics influence organizational decision-making, including environmental disclosure (Hambrick, 2007). A larger board size in a company allows the disclosure of transparent environmental information. This condition is due to more supervision and pressure from various parties. Board size influences the environmental disclosure level (Gerged, 2021; Nuskiyaet al., 2021). Each board member can contribute to the

company's management according to their expertise. Hence, companies with the best and most comprehensive quality can carry out good environmental disclosure. However, decisions on environmental disclosure levels must be communicated to the entire board (Kathy Rao et al., 2012). Given this context, the study proposes the following hypotheses:

H₁: Board size has a significantly positive correlation with environmental disclosure

Establishing a committee that focuses on environmental governance is seen as a capital resource for the company. The committee's experience and expertise are crucial in enhancing the quality of environmental reporting (Amran et al., 2014). The environmental committee plays a key role in raising awareness of all environmental aspects within the company. This committee sets targets and financial and non-financial awards to move all employees towards organizational change, focusing on environmental care. This reinforces the expectation that the environmental committee within the board of directors will oversee and advocate for management activities while seeking to align the company with stakeholders' interests (Peters & Romi, 2012).

Additionally, the company formed an environmental committee to tackle environmental issues like strategic risk or any opportunities that tend to stakeholders' perspectives (Jones & Solomon, 2010). Hence, it is suitable with stakeholder theory that the company should elaborate on all stakeholder's expectations (Freeman, 1984). Thus, the presence of an environmental committee helps meet stakeholders' expectations. The existence of an environmental committee has been proven to improve corporate environmental reporting (Dixon-Fowler et al., 2017). This condition shows that the company is committed to dealing with environmental issues. The environmental committee gives a good image about environmental governance (Faisal & Achmad, 2014; Gerged et al., 2023). Hence, the proposed research hypotheses are as follows:

H₂: Environmental committees exhibit a significantly positive correlation with environmental disclosure

An audit committee in a company positively impacts environmental management reporting (Pucheta-Martínez et al., 2021). Most of the current literature focuses on the direct interaction of board characteristics and committee structure, while the potential moderating function of the audit committee remains unexplored. This study highlights that specific audit committee characteristics are crucial in ensuring the environmental data and information. Therefore, an audit committee can improve the board's performance in managing environmental disclosure. In addition, the audit committee is also able to encourage the environmental committee to carry out comprehensive environmental disclosure. The audit committee can supervise and ensure that the environmental committee completes work related to environmental disclosure.

From the agency theory perspective, there is a gap in information between management and owners (Jensen & Meckling, 1976). Based on agency theory, an audit committee can reduce the gap in information between management and the owner. An effective audit committee enhances the information and adheres to established standards. Hence, its presence bridges the gap concerning environmental issues. The audit committee can be the primary supervisor directing the board to accommodate environmental issues. The audit committee's position is to be a balancer and guardian of transparency to ensure that environmental disclosure remains one of the priorities of the company board (Rezaee, 2005). Therefore, this research has the following hypotheses:

H₃: Audit committee can strengthen the influence of board size on environmental disclosure

From the perspective of theoretical stakeholders, companies must accommodate all stakeholders' interests (Freeman, 1984). Hence, the environmental committee shows the company's commitment to meeting stakeholders' needs regarding environmental issues. This committee is designed to face and solve all problems related to the environment. However, the environmental committee does not directly control preparing environmental discourses. The preparation of environmental disclosure involves several parties. This condition leads to an environmental

committee that is only a symbol. Furthermore, the existence of environmental disclosure is used only to defend the social legitimacy of the company. In addition, social exchange theory argues that there needs to be a reciprocal relationship commensurate with an action (Davis-Sramek et al., 2022). Therefore, this committee considers whether the environmental disclosure carried out by the environmental committee follows the cost-benefits concept or only creates inefficiency in using funds.

Therefore, the audit committee functions as a governance mechanism that ensures the quality of the environmental disclosure framework and is free from greenwashing practices. The audit committee can encourage the environmental committee to carry out its role optimally. Hence, an effective audit committee can encourage the environmental committee in terms of transparent disclosure of environmental issues and environmental management carried out by the company. However, the committee can also weaken the interaction between the environmental committee and environmental disclosure. The audit committee's incompetence in environmental issues makes him ignore these things. This situation may weaken the connection between the environmental committee and environmental disclosure. The audit committee only focuses on financial statements in the profit figures. Environmental issues are considered uninteresting, so when the environmental committee works, it is considered a waste of time. Hence, this research presents the following hypotheses:

H₄: Audit committee can weaken the impact of the environmental committee on environmental disclosure

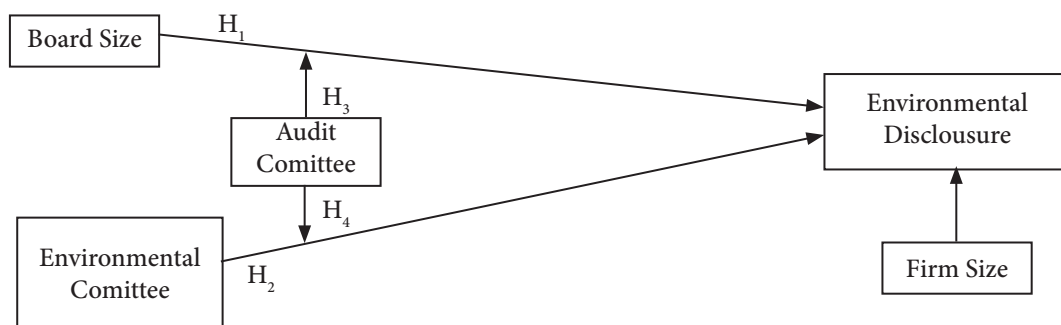


Figure 1. Conceptual Research Model

METHODS

This paper combines two corporate sectors producing carbon in their operational processes. This study examines 23 manufacturing and mining firms on the Indonesia Stock Exchange (IDX). The selection reason for the manufacturing and mining sectors is because these companies are included in the category of companies whose operational activities produce large amounts of carbon and trigger environmental damage (Tzouvanas et al., 2020). Based on Table 1, the research sample used a purposive sampling method by considering three criteria: having registered on the IDX from 2019 to 2023. This research focuses on the internal governance of the company. Hence, this study does not consider temporary external influences, including the COVID-19 pandemic. The sample criteria used were annual and sustainability reports from 2019 to 2023, using Global Reporting Initiative (GRI) standards for sustainability reports from 2019 to 2023. This is because companies that implement GRI can better represent best practices in environmental disclosure. There are 23 companies in this study with observation periods of five years from 2019 to 2023. Thus, the total number of data observations was 115.

Based on Table 2 explains the operational variable. Environmental disclosure is calculated as the number of GRI disclosures divided by the total GRI standards, then multiplied by 100%. Environmental disclosure (ED) is information about environmental responsibility by

Table 1. Sample Selection Criteria

No	Criteria	Number
1.	Mining and manufacturing companies publicly traded on the Indonesia Stock Exchange consecutively during 2019-2023	238
2.	Mining and manufacturing companies that did not release annual sustainability reports consecutively during 2019-2023	(200)
3.	Mining and manufacturing companies that did not use GRI Standards in preparing sustainability reports consecutively during 2019-2023	(7)
Data Outlier		(8)
Number of Selected Companies (i)		23
Number of Observation Year Periods (t)		5
Total Observations (i x t)		115

Source: Data Processed (2024)

companies that publish annual or sustainability reports. The independent variables are board size, environmental committee, and audit committee. Additionally, this study includes firm size as a control variable. It employs Moderating Regression Analysis through SPSS 26.

Table 2. Definition and Measurement of Research Variables

Variable	Explanation	Measurement
Environmental Disclosure (ED)	The disclosure of information on the company's environmental responsibility. It serves as a key metric for evaluating firm performance.	Calculated as the company discloses items divided by the total items based on GRI Standards multiplied by 100% (Papa et al., 2022)
Board Size (BS)	The number of members on the board of directors	Number of Directors and Commissioners (Akhter et al., 2023)
Environmental Committee (EC)	A board committee responsible for managing environmental issues in the company	Number of committee meetings (Abdullah et al., 2024)
Audit Committee (AC)	A committee that functions as a supervisory body and a bridge between the needs of external and internal parties. The audit committee as a moderating variable.	Number of audit committee meetings (Hashmi et al., 2022)
Firm Size (FS)	Company size as a control variable, which is reflected in total assets	Logarithmic transformation of total assets (Baalouch et al., 2019)

Source: Data Processed (2024)

RESULTS AND DISCUSSIONS

Table 3 provides the descriptive statistics for environmental disclosure. The minimum disclosure score observed was 7%, suggesting a generally low awareness among companies regarding the importance of environmental disclosure. This minimum score was attributed to PT. Gudang Garam Tbk is a company operating in the tobacco industry. The low disclosure score for PT. Gudang Garam Tbk because environmental disclosure is perceived as voluntary and, therefore, not mandatory. In contrast, the maximum disclosure score of 86% suggests a strong understanding of the importance of environmental disclosure. Companies achieving this maximum score include PT. Vale Indonesia Tbk, PT. Timah Tbk, and PT. Indo Tambangraya Megah. PT. Vale Indonesia Tbk, initially a state-owned enterprise that is now under private ownership, has a well-established practice of environmental disclosure. PT. Indo Tambangraya

Megah is a private company focused on coal exploration and sales. On the other hand, PT. Timah Tbk is a state-owned Indonesian company engaged in nickel mining that operates in sectors where fulfilling environmental disclosure requirements is crucial. This likely drives these companies to prioritise comprehensive environmental disclosure.

The board size varied between 6 and 23 members. The audit committee meetings held a minimum of three meetings per year. Meanwhile, the environmental committee met an average of only once per year. Notably, the maximum number of environmental committee meetings reached 24 per year. However, a minimum value of 0 suggests that some environmental committees held no meetings during the year. This condition shows that the environmental committee in the company is only a symbol. Following the legitimacy theory state, creating an environmental committee is a form of maintaining the company's existence in the perception of society. The average number of audit committee meetings was 13, with a minimum of 3 and a maximum of 77. The number of audit committee meetings may impact the extent of discussions and decisions related to environmental disclosure practices. Regarding company size, the average was Rp 45,937,596,289,888.7660, with a minimum of Rp 759,828,977,658.00 and a maximum of Rp 445,679,000,000,000.00.

Table 3. Summary of Descriptive Analysis

	Obs	Mean	Std.Dev	Min	Max
ED	115	0.466	0.207	0.07	0.86
BS	115	11.243	3.465	6.00	23.00
EC	115	1.313	3.449	0.00	24.00
AC	115	13.860	13.095	3.00	77.00
FS	115	45.937	80.042	759.828	445.679

Source: Output IBM SPSS Statistic 26 (2024)

Based on the Kolmogorov-Smirnov Test, the Monte Carlo normality test results indicated that the data is typically distributed. A Monte Carlo significance value (2-tailed) of 0.233 was obtained, exceeding the significance threshold of 0.05. Therefore, the assumption of normality for the data is met. The tolerance values exceed 0.10, and VIF values below 10. This means that high correlation among the models is not an issue in this study. Then, in the Glejser test, p-values for all variables exceed the 0.05 threshold. The Durbin-Watson statistic was 1.889, within the acceptable range of 1.090 to 2.2317, so there is no autocorrelation. Based on the fundamental assumption in classical regression analysis, the test above shows that the variables in this study have met all the classical assumptions. The R Square value is 0.242. This indicates that the influence of the board variable, environmental committee, control variable, and moderation on environmental disclosure is 24.2%

Table 4. Summary of Fundamental Assumptions in Classical Regression Analysis

Test	Value
Kolmogorov-Smirnov Test (A Monte Carlo -2-tailed)	0.233
Multicollinearity Test	< 0.10 and VIF > 10
Glejser Test	< 0.05
Durbin -Watson	1.889
R Square	0.242

Source: Output IBM SPSS Statistic 26 (2024)

The board size has a significantly positive correlation with environmental disclosure.

This study found a significance value of $0.331 > 0.05$, which means the first hypothesis (H1) is rejected. This shows that the board size does not significantly affect environmental disclosure.

The larger the board size company, the more difficult it will be to make decisions. A large number of boards will undoubtedly lead to different understandings and perceptions from one another. The many differences in understanding have caused the issue of environmental disclosure to be forgotten. The decisions on environmental disclosure levels must be communicated to the entire board (Kathy Rao et al., 2012). Hence, it leads to slow decision-making in many aspects. In addition, many boards create inefficiency and are more difficult to control (Jensen, 1993). Companies are more likely to be concerned with financial disclosure than environmental disclosure (Rinsman & Prasetyo, 2020). This result aligns with previous research that shows that board size does not affect environmental disclosure (Latif et al., 2020; Odoemelam & Okafor, 2018; Rouf & Al-Faryan, 2022). In addition, board size cannot influence environmental disclosure because the fragmentation of responsibility for environmental issues is unevenly distributed. There are no board members who explicitly encourage increased environmental disclosure. In addition, the lack of board expertise in the environmental field is one of the factors causing the neglect of environmental disclosure issues. More specifically, the possibility of free riding causes a lack of adequate supervision (Lipton & Lorsch, 1992). Hence, this result does not confirm agency theory.

This result shows that other perspectives should be used to determine the board. From the upper-echelon theory, the company's strategic decisions are influenced by the individual characteristics of the board members, including their background, education, experience, and personality). Upper echelons theory believes that the executives' knowledge, values, and characteristics influence the decisions they make in company affairs (Hambrick, 2007). Hence, the board's size alone cannot guarantee the implementation of environmental disclosure in a company. Referring to resource-based theory argues that companies depend on their internal resources (Barney, 2014). Hence, companies should consider tangible and intangible resources to maximize the board's role in environmental disclosure.

Table 5. Summary of Moderating Regression Analysis

Hypothesis	Hypothesis Statement	β	t	Sig (<0.05)	Result
H1	Board size has a significantly positive correlation with environmental disclosure	0.008	0.976	0.331	Rejected
H2	Environmental committees exhibit a significantly positive correlation with environmental disclosure	0.026	2.597	0.011**	Accepted
H3	Audit committees can enhance the influence of board size on environmental disclosure	0.000	-0.278	0.782	Rejected
H4	Audit committee can weaken the impact of the environmental committee on environmental disclosure	-0.001	-2.161	0.033**	Accepted

Source: Output IBM SPSS Statistic 26 (2024)

Note: **significant at $\alpha=5\%$

The environmental committees exhibit a significantly positive correlation with environmental disclosure.

The hypothesis testing results present a significance value of $0.011 < 0.05$, which means the second hypothesis (H2) is accepted. The environmental committee is a committee that primarily focuses on environmental management and disclosure. The results showed that the environmental committee positively affects environmental disclosure. The existence of an environmental committee can improve the quality of environmental disclosure (Faisal & Achmad, 2014; Liao et al., 2015; Peters & Romi, 2014). When linked to legitimacy theory, the existence of

an environmental committee shows that the company is compliant and acts according to existing norms. This can increase the company's legitimacy in the public eye.

In more depth, the existence of an environmental committee in the company can meet stakeholders' expectations. Under the stakeholder theory, companies must be able to meet all stakeholders' needs. One of the needs of stakeholders is information related to environmental issues related to the company's operational activities. Hence, the environmental committee is essential committee to achieve high environmental disclosure. The Environmental committee consists of individuals with expertise in the environmental or sustainability field so that they understand the company's environmental policies. The committee encourages companies to comply with environmental regulations and be more publicly responsible. Grounded in legitimacy theory, an environmental committee shows that companies are serious about handling environmental issues. This increases the legitimacy of the company.

In addition, the environmental committee acts as a representative of stakeholders concerned with sustainability issues. Based on the agency theory shows that pressure from stakeholders encourages the environmental committee to facilitate more comprehensive environmental disclosure. Furthermore, the environmental committee monitors environmental risks and enables management to improve sustainability reports. Therefore, an environmental committee enhances environmental disclosure (Baalouch et al., 2019; Pisano et al., 2022). The environmental committee can improve environmental governance and increase company compliance with related regulations. In addition, improved environmental disclosure quality can elevate a company's value. There is a continuous interplay between environmental disclosure and company value. Therefore, an environmental committee can provide economic benefits for the company.

The audit committees can enhance the influence of board size on environmental disclosure.

As the significance value of 0.782 is above 0.05, the third hypothesis (H3) is rejected. The audit committee could not moderate the relationship between board size and environmental disclosure. Environmental disclosure is still complementary, so the board of directors does not consider it. The audit committee is not directly involved in structural management, so the audit committee cannot play a role in this relationship. In addition, the audit committee cannot pressure the board of directors to make environmental disclosures. This is due to the assumption that the audit committee only focuses on tasks related to the quality of financial reporting.

In addition, the size of the board, which will bring up many thoughts, considers that environmental disclosure is voluntary and does not have to be prioritized. Based on the legitimation theory, companies use environmental disclosure to maintain legitimacy. Therefore, the council focuses on managing legitimacy and is not specific to environmental issues. Meanwhile, Indonesia adheres to a two-tier system, meaning the audit committee only acts as a supervisor (Pérez-Cornejo et al., 2019). Therefore, the audit committee cannot support or reduce the board's implementation of environmental disclosure. This condition reflects the separation of powers, which means that the audit committee has no authority to manage the company's decisions. The audit committee focuses more on financial supervision so that moderation of the relationship between board size and environmental disclosure becomes insignificant. Therefore, an audit committee in this model cannot suppress information asymmetry between the principal and agent regarding environmental disclosure. This condition is also possible because the audit committee controls environmental disclosure issues less. Therefore, an audit committee with environmental management and disclosure competencies is crucial.

The audit committee can weaken the impact of the environmental committee on environmental disclosure.

According to Table 10, hypothesis testing demonstrates a significance value of 0.041 (<0.05), while the beta value stands at -0.001. The findings reveal that the audit committee negatively moderates the link between the environmental committee and environmental disclosure. This means an audit committee weakens the relationship between the environmental committee and

environmental disclosure. This condition is caused by the environmental committee assuming the audit committee already addresses environmental issues. Hence, it might reduce their efforts, leading to less impactful environmental disclosure.

Although environmental committees positively impact environmental disclosure, an audit committee as a moderator reduces the incentive for environmental disclosure. Moreover, the audit committee is a supervisor focusing on reporting integrity and financial reporting standards. Therefore, audit committees prioritize accuracy and litigation risk over environmental disclosures. Certain audit committees lack awareness of the significance of environmental disclosure. This condition is due to the audit committee's background, which does not focus on the environmental sector. The committee considers that environmental issues do not directly impact the company's central performance, so environmental disclosure is not a concern for them. Therefore, an audit committee can weaken the interaction among board size and environmental disclosure.

Furthermore, the audit committee focuses more on legal and financial compliance risks, so environmental disclosure tends to be neglected. This is supported by the shareholder theory that companies must maximize profits for shareholders. Environmental disclosure is considered unnecessary and adds to costs. The impact of environmental disclosure on the company's profits is not direct. This is supported by the social exchange theory that companies disclose by weighing costs and benefits (Davis-Sramek et al., 2022; Homans, 1958). The costs incurred for environmental management and disclosure activities are considered too large, and the impact is insignificant for the company, so the company chooses not to disclose the environment. Hence, the audit commission, which focuses on investor profits, will undoubtedly lead to minimizing costs, including environmental disclosure costs.

CONCLUSIONS

This study proves the empirical result board does not affect environmental disclosure. Hence, companies must start considering the educational background and experience of the board. Based on the upper echelon theory, the executive's background determines company policies. Therefore, directors must have quality individual character. This research also shows that environmental committees affect environmental disclosure. The existence of an environmental committee can improve the quality of environmental disclosure. Additionally, establishing a dedicated committee tasked with managing and disclosing environmental information is crucial. In addition, the environmental committee can maintain the accountability of the company's environmental disclosure. Hence, the effectiveness of the environmental committee must be enhanced. This research also found that the audit committee could weaken the relationship between environmental committees and environmental disclosure. However, the audit committee could not moderate the relationship between the board and environmental disclosure.

This study adds to the existing literature by advancing environmental disclosure practices. It addresses a gap by exploring the previously overlooked role of the audit committee as a moderating factor in the relationship between the board, the environmental committee, and environmental disclosure. This research also holds practical implications for management accounting professionals, highlighting the importance of environmental committees in enhancing the quality of environmental disclosure.

Our findings believe companies must consider the board size to enhance environmental transparency. Moreover, based on upper-echelon theory, it is argued that executive characteristics greatly influence a company's decision-making. Hence, further research can focus on experience, education, and independence. Furthermore, the audit committee is vital in shaping corporate environmental disclosure. Therefore, companies should prioritize the effectiveness and performance of their audit committees.

This research has caveats. First, this research only focuses on Indonesia. Hence, it cannot be compared with other countries. Second, this research could not be generalized due to the small sample size. Future research should expand the number of samples and explore longitudinal data.

Third, this paper considers only a board size. Further research could focus on broad backgrounds like education, experience, and character. Based on upper echelon theory, the executive's background determines the firm decision. Third, audit committees only use the number of meetings proxy. Hence, future studies could incorporate human resources theory and examine the moderating impact of other audit committee characteristics such as educational background, professional experience, gender diversity, and independence.

REFERENCES

- Abdullah, A., Yamak, S., Korzhenitskaya, A., Rahimi, R., & McClellan, J. (2024). Sustainable development: The role of sustainability committees in achieving ESG targets. *Business Strategy and the Environment*, 33(3), 2250-2268. <https://doi.org/10.1002/bse.3596>.
- Akbas, H. E. (2016). The relationship between board characteristics and environmental disclosure: Evidence from Turkish listed companies. *South East European Journal of Economics and Business*, 11(2), 7. <https://doi.org/10.1515/jeb-2016-0007>.
- Akhter, F., Hossain, M. R., Elrehail, H., Rehman, S. U., & Almansour, B. (2023). From the lens of legitimacy theory, environmental disclosures and corporate attributes: a longitudinal analysis on a developing country. *European Journal of Management and Business Economics*, 32(3), 342-369. <https://doi.org/10.1108/EJMBE-01-2021-0008>.
- Amalia, S., Lesmana, D., Yudaruddin, Y. A., & Yudaruddin, R. (2022). The impact of board structure on voluntary environmental and energy disclosure in an emerging market. *International Journal of Energy Economics and Policy*, 12(4), 430-438. <https://doi.org/10.32479/ijeep.13154>.
- Amran, A., Lee, S. P., & Devi, S. S. (2014). The influence of governance structure and strategic corporate social responsibility toward sustainability reporting quality. *Business Strategy and the Environment*, 23(4), 217-235. <https://doi.org/10.1002/bse.1767>.
- Baalouch, F., Ayadi, S. D., & Hussainey, K. (2019). A study of the determinants of environmental disclosure quality: Evidence from French listed companies. *Journal of Management and Governance*, 23(4), 939-971. <https://doi.org/10.1007/s10997-019-09474-0>.
- Barney, J. B. (2014). How marketing scholars might help address issues in resource-based theory. In *Journal of the Academy of Marketing Science*, 42(1), 2147- 4478. <https://doi.org/10.1007/s11747-013-0351-8>.
- Biçer, A. A., & Feneir, I. M. (2019). The Impact of Audit Committee Characteristics on Environmental and Social Disclosures. *International Journal of Research in Business and Social Science*, 8(3), 111-121. <https://doi.org/10.20525/ijrbs.v8i3.262>.
- Block, S., Emerson, J. W., Esty, D. C., de Sherbinin, A., Wendling, Z.A., et al. (2024). Environmental performance index. New haven, CT: Yale center for environmental law & policy. *epi.yale.edu s*.
- Buallay, A., & Al-Ajmi, J. (2020). The role of audit committee attributes in corporate sustainability reporting: Evidence from banks in the Gulf Cooperation Council. *Journal of Applied Accounting Research*, 21(2), 249-264. <https://doi.org/10.1108/JAAR-06-2018-0085>.
- Chariri, A., Januarti, I., & Yuyetta, E. N. A. (2017). Firm characteristics, audit committee, and environmental performance: Insights from Indonesian companies. *International Journal of Energy Economics and Policy*, 7(6), 19-26. <https://www.econjournals.com/index.php/ijeep/article/view/5657>.
- Cheynel, E., & Levine, C. B. (2020). Public disclosures and information asymmetry: A theory of the mosaic. *Accounting Review*, 95(1), 79-99. <https://doi.org/10.2308/accr-52447>.
- Dao, B. T. T., & Ngo, H. A. (2020). Impact of corporate governance on firm performance and earnings management a study on vietnamese non-financial companies. *Asian Economic and Financial Review*, 10(5), 480. <https://doi.org/10.18488/journal.aefr.2020.105.480.501>.
- Davis-Sramek, B., Hopkins, C. D., Richey, R. G., & Morgan, T. R. (2022). Leveraging supplier relationships for sustainable supply chain management: insights from social exchange theory. *International Journal of Logistics Research and Applications*, 25(1), 101-118. <https://doi.org/10.1080/13675567.2020.1797654>.
- Digdowiseiso, K., Subiyanto, B., & Setioningsih, R. (2022). What drives environmental disclosure? Evidence from mining companies listed on the Indonesia stock exchange. *International Journal of Energy Economics and Policy*, 12(4), 32-39. <https://doi.org/10.32479/ijeep.13170>.
- Dixon-Fowler, H. R., Ellstrand, A. E., & Johnson, J. L. (2017). The role of board environmental committees in corporate environmental performance. *Journal of Business Ethics*, 140(3), 423-438. <https://doi.org/10.1007/s10551-015-2664-7>.

- Fadilah, M. F. (2021). The Influence of Current Ratio (CR) and Net Profit Margin (NPM) on the share price of PT ultrajaya Milk Industry & Trading company Tbk. *OPTIMAL Jurnal Ekonomi Dan Manajemen*, 1(2), 13–36. <https://doi.org/10.55606/optimal.v1i2.1762>.
- Faisal, F., & Achmad, T. (2014). Internal contextual factors influencing the extent of environmental disclosure. *International Journal of Managerial and Financial Accounting*, 6(4), 357–374. <https://doi.org/10.1504/IJMFA.2014.066404>.
- Freeman, R. E., & McVea, J. (2005). A stakeholder approach to strategic management. *The Blackwell handbook of strategic management*, 183–201. <https://doi.org/10.1111/b.9780631218616.2006.00007.x>.
- Fuadah, L. L., Mukhtaruddin, M., Andriana, I., & Arisman, A. (2022). The ownership structure, and the Environmental, Social, and Governance (ESG) disclosure, firm value and firm Performance: The Audit Committee as Moderating Variable. *Economies*, 10(12), 314. <https://doi.org/10.3390/economies10120314>.
- Gerged, A. M. (2021). Factors affecting corporate environmental disclosure in emerging markets: The role of corporate governance structures. *Business Strategy and the Environment*, 30(1), 609–629. <https://doi.org/10.1002/bse.2642>.
- Gerged, A. M., Chijoke-Mgbame, A. M., Konadu, R., & Cowton, C. J. (2023). Does the presence of an environmental committee strengthen the impact of board gender diversity on corporate environmental disclosure? Evidence from sub-Saharan Africa. *Business Strategy and the Environment*, 32(4), 2434–2450. <https://doi.org/10.1002/bse.3257>.
- Hambrick, D. C. (2007). Upper echelons theory: An update. In *Academy of Management Review*, 32(2), 334–343. <https://doi.org/10.5465/AMR.2007.24345254>.
- Hanjani, A., & Kusumadewi, R. K. A. (2023). Environmental performance and financial performance: Empirical evidence from Indonesian companies. *Corporate Social Responsibility and Environmental Management*, 30(3), 1508–1513. <https://doi.org/10.1002/csr.2433>.
- Hashmi, M. A., Abdullah, R. K., Ansari, T., & Hasan, M. A. (2022). Do effective audit committees, gender-diverse boards, and corruption controls influence the voluntary disclosures of Asian banks? The moderating role of directors' experience. *Cogent Business and Management*, 9, 213520. <https://doi.org/10.1080/23311975.2022.2135205>.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597–606. <https://doi.org/10.1086/222355>.
- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *J Finance*, 48(3), 831–880. <https://doi.org/10.1111/j.1540-6261.1993.tb04022.x>.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X).
- Jones, M. J., & Solomon, J. F. (2010). Social and environmental report assurance: Some interview evidence. *Accounting Forum*, 34(1), 20–31. <https://doi.org/10.1016/j.accfor.2009.11.002>.
- Kathy Rao, K., Tilt, C. A., & Lester, L. H. (2012). Corporate governance and environmental reporting: An Australian study. *Corporate Governance: The International Journal of Business in Society*, 12(2), 143–163. <https://doi.org/10.1108/14720701211214052>.
- Khaireddine, H., Salhi, B., Aljabr, J., & Jarbou, A. (2020). Impact of board characteristics on governance, environmental and ethical disclosure. *Society and Business Review*, 15(3), 273–295. <https://doi.org/10.1108/SBR-05-2019-0067>.
- Latif, R. A., Yahya, N. H., Mohd, K. N. T., Kamardin, H., & Ariffin, A. H. M. (2020). The influence of board diversity on environmental disclosures and sustainability performance in Malaysia. *International Journal of Energy Economics and Policy*, 10(5), 287–296. <https://doi.org/10.32479/ijeep.9508>.
- Liao, L., Luo, L., & Tang, Q. (2015). Gender diversity, board independence, environmental committee and greenhouse gas disclosure. *British Accounting Review*, 47(4), 409–424. <https://doi.org/10.1016/j.bar.2014.01.002>.
- Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance: Business source. *Business Lawyer*, 48, 59–76. <http://dx.doi.org/10.4236/ojacct.2014.31002>.
- Menicucci, E., & Paolucci, G. (2022). Board Diversity and ESG Performance: Evidence from the Italian Banking Sector. *Sustainability (Switzerland)*, 14(20), 13447. <https://doi.org/10.3390/su142013447>.

- Nasution, N., Putri, D. H., & Faruqi, F. (2020). The effect of asymmetry information and corporate governance mechanism on earning management in companies listed in the islamic index Period of Jakarta 2015-2018. *Proceedings of the Annual International Conference on Accounting Research (AICAR 2019)*, 127, 78-81. <http://dx.doi.org/10.2991/aebmr.k.200309.018>.
- Nuskiya, M. N. F., Ekanayake, A., Beddewela, E., & Meftah Gerged, A. (2021). Determinants of corporate environmental disclosures in Sri Lanka: the role of corporate governance. *Journal of Accounting in Emerging Economies*, 11(3), 367-394. <https://doi.org/10.1108/JAEE-02-2020-0028>.
- Odoemelam, N., & Okafor, R. (2018). The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. *Indonesian Journal of Sustainability Accounting and Management*, 2(1), 25â-49. <https://doi.org/10.28992/ijssam.v2i1.47>.
- Ofoegbu, G. N., Odoemelam, N., & Okafor, R. G. (2018). Corporate board characteristics and environmental disclosure quantity: Evidence from South Africa (integrated reporting) and Nigeria (traditional reporting). *Cogent Business and Management*, 5(1), 1551510. <https://doi.org/10.1080/23311975.2018.1551510>.
- Papa, M., Carrassi, M., Muserra, A. L., & Wiczorek-Kosmala, M. (2022). The impact of the EU nonfinancial information directive on environmental disclosure: evidence from Italian environmentally sensitive industries. *Meditari Accountancy Research*, 30(7), 87-120. <https://doi.org/10.1108/MEDAR-03-2021-1247>.
- Pérez-Cornejo, C., de Quevedo-Puente, E., & Delgado-García, J. B. (2019). How to manage corporate reputation? The effect of enterprise risk management systems and audit committees on corporate reputation. *European Management Journal*, 37(4), 505-515. <https://doi.org/10.1016/j.emj.2019.01.005>.
- Peters, G. F., & Romi, A. M. (2012). The effect of corporate governance on voluntary risk disclosures: Evidence from greenhouse gas emission reporting. *Unpublished working paper, University of Utah*. https://eccles.utah.edu/sites/default/files/documents/school-of-accounting/ghg_disclosure_and_corp_gov_20120202.pdf.
- Peters, G. F., & Romi, A. M. (2014). Does the voluntary adoption of corporate governance mechanisms improve environmental risk disclosures? Evidence from greenhouse gas emission accounting. *Journal of Business Ethics*, 125(4), 637-666. <https://doi.org/10.1007/s10551-013-1886-9>.
- Pinheiro, A. B., Oliveira, M. C., de Freitas, G. A., & García, M. B. L. (2023). Board attributes and environmental disclosure: what is the nexus in liberal economies? *RAE Revista de Administracao de Empresas*, 63(4), e2021-0446. <https://doi.org/10.1590/S0034-759020230402>.
- Pisano, S., Lepore, L., Celentano, A., & Alvino, F. (2022). The influence of institutional factors on the relationship between board of directors and environmental disclosure: A meta-analysis. *International Review of Environmental and Resource Economics*, 16(2), 229-280. <https://doi.org/10.1561/101.00000145>.
- Pucheta-Martínez, M. C., Gallego-Álvarez, I., & Bel-Oms, I. (2021). Corporate social and environmental disclosure as a sustainable development tool provided by board sub-committees: Do women directors play a relevant moderating role? *Business Strategy and the Environment*, 30(8), 3485-3501. <https://doi.org/10.1002/bse.2815>.
- Rezaee, Z. (2005). Causes, consequences, and deterrence of financial statement fraud. *Critical Perspectives on Accounting*, 16(3), 277-298. [https://doi.org/10.1016/S1045-2354\(03\)00072-8](https://doi.org/10.1016/S1045-2354(03)00072-8).
- Rinsman, T. C. S., & Prasetyo, A. B. (2020). The effects of financial and environmental performances on firm value with environmental disclosure as an intervening variable. *Jurnal Dinamika Akuntansi*, 12(2), 90-99. <https://doi.org/10.15294/jda.v12i2.24003>.
- Rouf, M. A., & Al-Faryan, M. A. S. (2022). Does corporate governance affect environmental reporting? *PSU Research Review*, 8(2), 514-527. <https://doi.org/10.1108/PRR-02-2022-0023>.
- Sari, M. P., Dewi, S. R. K., Raharja, S., Dinanti, A., & Rizkyana, F. W. (2023). Good corporate governance as moderation on sustainability report disclosure. *Journal of Governance and Regulation*, 12(3), 16-24. <https://doi.org/10.22495/jgrv12i3art2>.
- Shankaraiah, K., & Amiri, S. M. S. (2017). Audit committee quality and financial reporting quality: A study of selected Indian companies. *Jurnal Dinamika Akuntansi Dan Bisnis*, 4(1), 1-18. <https://doi.org/10.24815/jdab.v4i1.6653>.

- Suryaputra, V., Djajadikerta, H., & Permatasari, P. (2024). Do Indonesian investors value sustainability: the relationship between sustainability performance and firm value related to natural environment issues. *Journal of Sustainability Science and Management*, 19(6), 111–126. <https://doi.org/10.46754/jssm.2024.06.009>.
- Tarus, K. J. (2020). Do board size and firm size affect environmental accounting disclosure evidence from selected listed firms in Kenya. *Journal of Business Management and Economic Research*, 4(1), 21–37. <https://doi.org/10.29226/tr1001.2020.181>.
- Tingbani, I., Chithambo, L., Tauringana, V., & Papanikolaou, N. (2020). Board gender diversity, environmental committee and greenhouse gas voluntary disclosures. *Business Strategy and the Environment*, 29(6), 2194–2210. <https://doi.org/10.1002/bse.2495>.
- Tzouvanas, P., Kizys, R., Chatziantoniou, I., & Sagitova, R. (2020). Environmental disclosure and idiosyncratic risk in the European manufacturing sector. *Energy Economics*, 87, 104715. <https://doi.org/10.1016/j.eneco.2020.104715>.
- Velayutham, E., Krishnamurti, C., & Hoque, A. (2017). The role of voluntary corporate governance mechanisms on environmental risk disclosure: Australian evidence. In *8th Conference on Financial Markets and Corporate Governance (FMCG)*. <https://doi.org/10.2139/ssrn.2903054>.
- Vig, S. (2024). Environmental disclosures by Indian companies: role of board characteristics and board effectiveness. *International Journal of Disclosure and Governance*, 21(1), 16–31. <https://doi.org/10.1057/s41310-023-00174-8>.
- Wang, J., & Sun, J. (2022). The role of audit committees in social responsibility and environmental disclosures: evidence from Chinese energy sector. *International Journal of Disclosure and Governance*, 19(1), 1–16. <https://doi.org/10.1057/s41310-021-00131-3>.
- Welbeck, E. E., Owusu, G. M. Y., Bekoe, R. A., & Kusi, J. A. (2017). Determinants of environmental disclosures of listed firms in Ghana. *International Journal of Corporate Social Responsibility*, 2(1), 1–12. <https://doi.org/10.1186/s40991-017-0023-y>.
- Yanto, H., & Maulia, D. (2020). The determinants of environmental disclosure in companies in Indonesia. *Jurnal Dinamika Akuntansi*, 12(2), 178–188. <https://doi.org/10.15294/jda.v12i1.26014>.