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The Moderating Role of Financial Performance on Governance and Firm Characteristics toward Sustainability Disclosure

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Abstract

The growing importance of sustainability reporting has prompted companies to pay closer attention to factors influencing its disclosure. This study investigates the effect of board size, CEO educational background, firm size, and leverage on sustainability report disclosure, with financial performance acting as a moderating variable. The research focuses on energy sector companies listed on the Indonesia Stock Exchange that published both financial and sustainability reports between 2019 and 2023. Purposive sampling was employed to select the sample, and data were analysed using panel data regression in EViews 12, with hypothesis testing conducted through t-tests. The findings reveal that board size and CEO educational background do not significantly influence sustainability report disclosure, whereas firm size and leverage have a positive impact. Furthermore, financial performance moderates these relationships: it weakens the effect of board size and CEO education on disclosure, but strengthens the influence of firm size and leverage. These results highlight the critical role of financial performance in shaping sustainability reporting practices, providing insights for both policymakers and corporate management in promoting transparency and accountability.

Keywords

Board Size, Energy Sector, Financial Performance, Firm Size, Leverage, Sustainability Reporting.

1. Introduction

The adoption of sustainability reporting has expanded considerably across the globe, driven by the increasing focus on stakeholder-oriented assessment criteria. Currently, about 96% of the top 250 global corporations include sustainability-related information in their annual reports. The implementation of new non-financial reporting regulations is anticipated to further strengthen these reporting practices. While certain countries adopt SASB standards or regulations set by local stock exchanges, the Global Reporting Initiative (GRI) remains the most widely implemented framework internationally (Goswami, 2023). In Indonesia, sustainability reporting initially followed a voluntary approach before becoming mandatory. However, the current level of sustainability reporting in Indonesia remains relatively low, at 36%, ranking fifth among six ASEAN countries included in this study (Loh & Thomas, 2020; Karyani et al., 2020). This indicates that the level and comprehensiveness of sustainability reporting in Indonesia still need enhancement. Sustainability reports are essential for increasing transparency and stakeholder confidence, supporting risk and cost management, and improving overall organisational performance.

This study focuses on energy and industrial companies listed on the Indonesia Stock Exchange due to their significant environmental impact. According to Akinyemi and Ramonu (2019), the energy sector is the largest contributor to greenhouse gas emissions, followed by the industrial sector. Fuel combustion is the main source, with the electricity sector contributing 43% of CO₂ emissions, transportation 25%, and industry 23%. Companies in these sectors are expected to produce sustainability reports, integrating environmental considerations into core operations. Investors increasingly consider these reports alongside financial statements, making it important to examine the factors that influence sustainability disclosure.

Numerous studies have demonstrated that the board of directors plays a significant role in promoting transparency in sustainability reporting. Research by Abdulwahab et al. (2023) and Alta'any et al. (2024) indicates that larger boards are associated with greater transparency in sustainability reports. Additionally, studies by Shahab et al. (2019), Ghardallou (2020), and Jaturat et al. (2021) suggest that the educational backgrounds of board members positively influence the extent of sustainability disclosure. Similarly, Abdulsalam and Babangida (2020), Ong and Djajadikerta (2020), and Farooq et al. (2021) found that larger firms tend to produce more comprehensive sustainability reports. Moreover, several studies, including Nguyen and Nguyen (2020), Febriyanti (2021), Sari et al. (2023) and Sitorus et al. (2024), have reported that higher leverage is associated with increased likelihood of disclosing corporate sustainability information.

Several studies suggest that sustainability report disclosures are not strongly influenced by board size, CEO educational background, firm size, or leverage. For example, Yohana and Suhendah (2023) and Sitorus et al. (2024) found that profitability can moderate the effect of board size on sustainability reporting among 45 LQ45 companies listed on the Indonesia Stock Exchange. The interplay between CEO education and financial performance as moderating variables has also been examined in relation to sustainability disclosures (Lafuente & Vaillant, 2019). Agustina (2021) and Dewi et al. (2023) reported that financial performance reduced the positive impact of CEO educational background on the quality of CSR disclosures among Kompas-100 companies listed on the Indonesia Stock Exchange during 2018–2019. Similarly, Sitorus et al. (2024) demonstrated that profitability could mitigate the influence of firm size on sustainability report disclosure, as well as the effect of leverage, among the 45 LQ45 firms. This evidence highlights the contextual factors that motivated the present study.

Although numerous studies have explored the impact of board size, CEO educational background, firm size, and leverage, their results remain inconclusive, showing inconsistencies across different investigations. In analyzing how these factors relate to sustainability report disclosure, it is crucial to consider the possible moderating effect of financial performance. This study differentiates itself from previous research primarily through its focus. Until now, no research has specifically addressed companies operating in the energy and industrial sectors. This study aims to energy and industrial firms listed on the Indonesia Stock Exchange during 2019–2023. Additionally, it incorporates variables that have been less studied, such as firm size, leverage, board size, and CEO educational background. Sustainability report disclosure is treated as the dependent variable, with financial performance acting as the moderating variable.

2. Literature Review and Hypothesis Development

2.1. Theoretical Foundations: Stakeholder and Legitimacy Perspectives

In the framework of strategic management, Stakeholder Theory underscores that an organization's success depends on its ability to balance and fulfill the expectations of diverse stakeholders, including shareholders, employees, customers, and the wider community (Freeman & Phillips, 2002). Companies that create value for stakeholders collectively without compromising one group over another tend to achieve sustainable performance and long-term growth. This principle supports the determinants of sustainability reporting disclosure, where board size, CEO education, company size, and leverage influence how firms communicate their economic, social, and environmental impacts. Effective governance structures and sound financial management demonstrate a firm's responsiveness to stakeholder concerns, thereby reinforcing its credibility and ethical standing.

Complementing this perspective, Legitimacy Theory asserts that organizations must conform to societal norms and regulations to maintain their legitimacy in the eyes of the public (Dowling & Pfeffer, 1975; Suharyani et al., 2019; Crossley et al., 2021). Sustainability reporting thus becomes a strategic tool for demonstrating compliance and accountability, particularly for firms with strong financial performance that can allocate resources to such initiatives. Through transparent reporting, companies legitimize their operations and strengthen stakeholder trust. Consequently, both theories jointly explain how firm and governance characteristics are moderated by financial performance. It has influenced the extent and quality of sustainability reporting disclosure.

2.2. The Determinants of Sustainability Reporting Disclosure

Sustainability reporting disclosure represents a company's commitment to transparency in communicating its economic, social, and environmental performance to stakeholders. In Indonesia, OJK Regulation Number 51/POJK.03/2017 obliges financial institutions and public companies to publish sustainability reports aligned with the Global Reporting Initiative (GRI) Standards. These standards serve as a globally recognized framework that promotes accountability and comparability, ensuring that businesses disclose their sustainability impacts comprehensively. The degree of sustainability disclosure can be influenced by several organizational factors, including board size, CEO characteristics, company size, and leverage.

The size of the board of directors reflects the firm's governance strength and decision-making quality. A larger board generally brings greater diversity of perspectives and expertise, which enhances monitoring effectiveness and promotes greater disclosure of sustainability information (Gold et al., 2021; Pradipta et al., 2022; Githaiga & Kosgei, 2023; Erin & Ackers, 2024; Lewa et al., 2024). Thus, a well-structured board is expected to increase the transparency and comprehensiveness of sustainability reports. The CEO's educational background also plays a vital role.

CEOs with higher education levels are likely to possess a broader understanding of sustainable development principles and stakeholder expectations, motivating the firm to improve the quality of sustainability disclosure (Li et al., 2016; Kaya & Akbulut, 2019; Hamad et al., 2020). Therefore, CEO education is presumed to positively influence the extent of reporting.

Furthermore, company size and leverage are critical financial determinants. Larger firms typically have more resources, complex operations, and higher public visibility, which drive them to maintain legitimacy and reduce information asymmetry through extensive sustainability disclosures (Brigham & Daves, 2014). Conversely, leverage, or the degree of debt financing, can influence disclosure practices. Highly leveraged firms tend to provide more sustainability information to reassure creditors and mitigate perceptions of financial risk (Scarborough & Cornwall, 2019). Thus, company size and leverage are both expected to significantly affect sustainability reporting disclosure.

H1: Board size has a significant effect on sustainability reporting disclosure.

H2: CEO education has a significant effect on sustainability reporting disclosure.

H3: Company size has a significant effect on sustainability reporting disclosure.

H4: Leverage has a significant effect on sustainability reporting disclosure.

2. 3. Financial Performance as a Moderating Variable

Financial performance reflects a company's overall ability to generate profits and achieve its strategic goals within a specific period, serving as an essential indicator of corporate health and managerial effectiveness (Sitorus et al., 2024). It represents not only the growth of monetary value but also the realization of anticipated benefits that indicate the company's operational success. Profitability, as emphasized by Satria and Rasyid (2024) forms the cornerstone of business sustainability, ensuring stability and investor confidence. Financial statements play a pivotal role in this regard by providing stakeholders with crucial information to assess performance, make informed decisions, and evaluate management accountability (Agustina & Sudiby, 2022).

As a moderating variable, financial performance influences the relationship between firm characteristics (company size and leverage) and governance characteristics (board size and CEO education) with sustainability reporting disclosure. Companies demonstrating strong financial performance are more capable of allocating resources to sustainability initiatives and adopting global standards such as the GRI framework, thereby enhancing their transparency and legitimacy (Orazalin et al., 2019; Guryanova et al., 2020). Conversely, firms with weaker financial outcomes may focus primarily on short-term profitability and cost efficiency, which can restrict the extent of their sustainability disclosure. According to legitimacy theory organizations seek to align their actions with societal expectations to preserve legitimacy, and financial strength enables them to meet these expectations more effectively.

H5: Financial performance moderated the influence of board size on sustainability reporting disclosure.

H6: Financial performance moderated the influence of CEO education on sustainability reporting disclosure.

H7: Financial performance moderated the influence of company size on sustainability reporting disclosure.

H8: Financial performance moderated the influence of leverage on sustainability reporting disclosure.

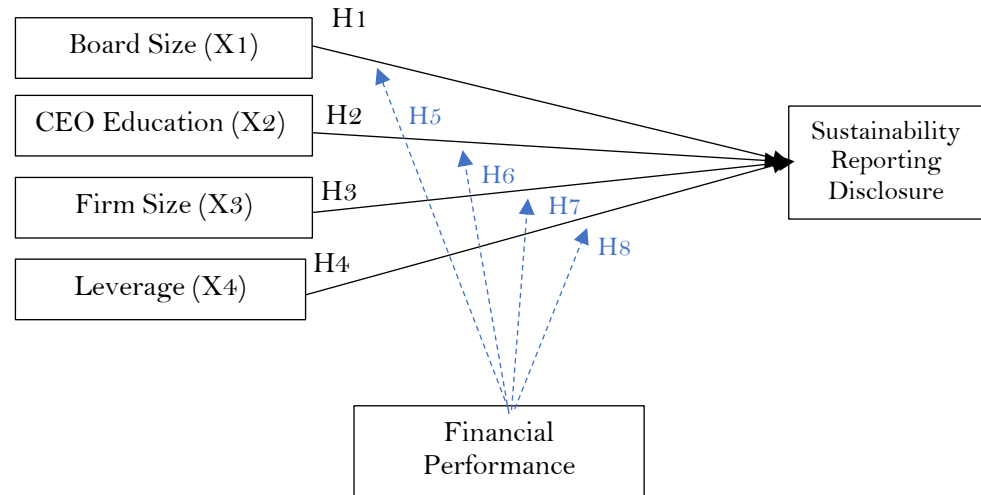


Figure 1. Research Framework

The study's conceptual framework is depicted in Figure 1. The following independent variables are hypothesised to affect Sustainability Report Disclosure (Y): Board Size (X1), CEO Education (X2), Company Size (X3), and Leverage (X4). The link between governance and business characteristics with sustainability disclosure is also expected to be strengthened or weakened by the addition of Financial Performance (Z) as a moderating variable. Direct impacts are represented by hypotheses H1–H4, whilst moderating effects are captured by hypotheses H5–H8.

3. Methods

This study employs a quantitative methodology with a causal research design, focusing on industrial and energy companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. The research evaluates six variables: four independent variables board size (X1), CEO education (X2), firm size (X3), and leverage (X4); one dependent variable sustainability report disclosure (Y); and one moderating variable financial performance (Z). Data were obtained from secondary sources, specifically the sustainability reports and annual reports of the sampled companies, accessed via the IDX official portal and corporate websites. The population comprised 106 firms, but due to incomplete sustainability reporting, only 21 companies met the purposive sampling criteria, resulting in 105 firm-year observations over five years.

Variable operationalization followed established indicators: Sustainability report disclosure (Y) was measured using the Sustainability Report Disclosure Index (SRDI) based on the GRI Standards (2016), calculated as the ratio of disclosed items to the total expected items (Jorge, 2019). Board size (X1) was represented by the number of directors (Octora & Amin, 2023; Rouf & Hossan, 2021). CEO educational background (X2) was coded 1 for economics, management, accounting, or business disciplines, and 0 for other fields (Kwalomine, 2017). Firm size (X3) was the natural logarithm of total assets, while leverage (X4) was measured by the debt-to-equity ratio (Farooq et al., 2021). Financial performance (Z), as the moderating variable, was proxied by return on assets (ROA), calculated as net income divided by total assets multiplied by 100 per cent.

Panel data regression analysis was conducted using EViews 12, including the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). Model selection was guided by the Lagrange Multiplier, Hausman, and Chow tests. Classical assumption tests confirmed normality, absence of autocorrelation and heteroscedasticity, and lack of multicollinearity. The F-test assessed overall model fit, while t-tests examined individual variable significance, and the R² coefficient measured explanatory power.

The regression model included both direct effects of independent variables and moderating effects of financial performance, enabling the study to examine how financial performance influences the relationship between board size, CEO education, firm size, leverage, and sustainability report disclosure. The panel regression approach was chosen due to its ability to handle multi-year cross-sectional data, control for unobserved heterogeneity, and improve estimation efficiency. In order to find out how independent factors affect dependent variables, regression analysis is used:

$$SR = \alpha + \beta_1UD + \beta_2CEO + \beta_3CS + \beta_4DER + \beta_5UD.ROA + \beta_6CEO.ROA + \beta_7CS.ROA + \beta_8DER.ROA + e$$

Information:

- SR : Sustainability Report
- a* : Constant
- $\beta_1 - \beta_8$: Regression Coefficient
- UD : Size of the Board of Directors
- CEO : CEO Education Background
- CS : Company Size
- DER : Leverage
- ROA : Financial Performance
- e* : Error

4. Results

In this study, the sample consisted of 21 companies for 5 years from 2019 to 2023. The number of samples observed was 105. Based on descriptive statistical analysis, the following sample description was obtained:

Table 1. Descriptive Analysis

Variable	Minimum	Maximum	Standard Deviation
Size of the Board of Directors	3.000000	15.00000	2.211484
CEO Education Background	0.000000	1.000000	0.444338
Company Size	28.32445	33.73001	1.491896
Leverage	0.050454	24.84892	2.967803
Financial Performance	-0.098395	0.454267	0.090467
Sustainability Report Disclosure	0.290541	0.959459	0.201197

Table 1 shows the descriptive statistics of the study variables. The results indicate variation across companies in board size, CEO education, company size, leverage, financial performance, and sustainability report disclosure. Among these, leverage displays the greatest spread, while financial performance shows the least variation.

The descriptive analysis shows variations across all variables observed between 2019 and 2023. For board size, PT. Bumi Resources Tbk. (BUMI) recorded the maximum with 15 members, while PT. ABM Investama Tbk. (ABMM) had the minimum with 3 members, with an average of 5.69 and a standard deviation of 2.21, indicating relatively homogeneous data. CEO educational background, coded as 1 for economics, business, accounting, or engineering and 0 for other fields, reached a maximum of 1 and a minimum of 0, with an average of 0.73 and a standard deviation of 0.44, showing good representation. Company size, measured by the natural log of total assets, ranged from 28.32 (PT. IMC Pelita Logistik Tbk.) to 33.73 (PT. Astra International Tbk.), with a mean of 30.66 and a standard deviation of 1.49, reflecting data homogeneity. Leverage displayed greater variation, with the highest DER value

of 24.85 (PT. Bumi Resources Tbk.) and the lowest of 0.05 (PT. Mitrahahtera Segara Sejati Tbk.), yielding a mean of 1.68 and a standard deviation of 2.97, suggesting heterogeneity. Sustainability report disclosure ranged from 0.29 (PT. IMC Pelita Logistik Tbk.) to 0.96 (PT. ABM Investama Tbk.), with a mean of 0.63 and a standard deviation of 0.20, indicating that the data is fairly representative. Finally, financial performance (ROA) peaked at 0.45 (PT. Indo Tambangraya Megah Tbk.) and dropped to -0.09 (PT. Bumi Resources Tbk.), with a mean of 0.07 and a standard deviation of 0.09, suggesting heterogeneous distribution.

Table 2. Chow and Hausman Test

Type Test	Value	Conclusion
Chow Test	Cross-section Chi-square = 0.000	FEM
Hausman Test	Cross-section random = 0.0086	FEM

Based on the results presented in the Table 2, the probability value of the Chow test is 0.000 (< 0.05), indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model (CEM). Furthermore, the Hausman test shows a probability value of 0.0086 (< 0.05), suggesting that the Fixed Effect Model is also more suitable than the Random Effect Model. Therefore, it can be concluded that the most appropriate model to be used in this study is the Fixed Effect Model.

Table 3. Coefficient of Determination Test

Statistics	Value
R-squared	0.275175
Adjusted R-square	0.206507

Table 3 shows that the R-squared value, or 27.51%, is computed using the 0.275175, the data from the above table. The findings show that board size, CEO education, business size, and leverage have a 27.51% impact on sustainability report disclosure, but the regression model did not account for 72.49% of the variance.

Table 4. F-Statistics Test

Statistics	Value
F-statistic	4.007349
Prob(F-statistic)	0.000228

Table 4 displays the results of the F-test, which indicate a significant value of 0.000228 below the 0.05 cutoff. This shows that the degree of sustainability report disclosure among energy and industrial companies listed on the Indonesia Stock Exchange between 2019 and 2023 is greatly influenced by the independent variables board size, CEO education, company size, leverage, and their interactions with financial performance taken together. As a result, the regression model offers a good fit.

Table 5. Panel Data Regression Analysis

Variable	Coefficient	Std. Error	T-Statistic	Sig.
(Constant)	-1.008057	0.583778	-1.726782	0.0875
UKX1	0.006038	0.011837	0.510053	0.6112
LBX2	0.043679	0.055543	0.786406	0.4336
CSX3	0.050073	0.020333	2.462655	0.0249
LVX4	0.003278	0.009288	0.352864	0.0156
X1_Z	-0.083075	0.098565	-0.842848	0.4014
X2_Z	1.063800	0.641679	1.657837	0.1006
X3_Z	0.045655	0.201630	0.226431	0.0213
X4_Z	0.084597	0.113026	0.748472	0.0456
KKZ	-1.380998	5.914656	-0.233487	0.8159

The formula for the data regression equation of the research model panel is obtained: $SR = -1.008057 + 0.006038 + 0.043679 + 0.050073 + 0.003278 - 0.083075 + 1.063800 + 0.045655 + 0.084597$. Based on Table 5, the regression analysis, the constant yields a negative value of -1.008057, suggesting that when all independent variables are zero, sustainability disclosure would also be negative. The board size variable (X1) carries a positive coefficient of 0.006038, indicating that larger boards are linked to greater disclosure. Likewise, the CEO's educational background (X2) shows a positive coefficient of 0.043679, implying that relevant educational qualifications enhance transparency in sustainability reporting. Company size (X3), with a coefficient of 0.050073, also has a positive effect, indicating that larger firms are more likely to disclose sustainability information. Similarly, leverage (X4) has a positive coefficient of 0.003278, suggesting that higher debt levels encourage firms to increase transparency. These findings highlight that both governance and firm characteristics have a positive influence on the extent of sustainability disclosure, although their effects vary in magnitude.

The regression results reveal that the board of directors' size (X1), with a significance value of 0.6112 (> 0.05), does not influence sustainability report disclosure, leading to the rejection of H1. Similarly, the CEO's educational background (X2) shows no significant relationship, with a probability value of 0.4336 (> 0.05), thus H2 is also rejected. In contrast, firm size (X3) demonstrates a significant effect on disclosure practices, with a probability of 0.0156 (< 0.05), supporting H3 and indicating that larger firms are more likely to disclose sustainability information. Likewise, leverage (X4) significantly influences disclosure with a probability of 0.0249 (< 0.05), thereby supporting H4. Regarding moderating effects, financial performance does not significantly influence the relationship between board size (X1) and disclosure ($p = 0.4014 > 0.05$), nor between CEO education (X2) and disclosure ($p = 0.1006 > 0.05$), resulting in the rejection of H5 and H6. However, financial performance significantly strengthens the relationship between firm size (X3) and sustainability disclosure ($p = 0.0213 < 0.05$), supporting H7. Finally, the moderating effect of financial performance on leverage (X4) is also significant ($p = 0.0456 < 0.05$), thereby supporting H8.

The statistical results presented above provide a clear picture of how the independent variables and moderating variable relate to sustainability report disclosure. Board size (X1) and CEO education (X2) were found not to significantly influence disclosure, indicating that the presence of larger boards or relevant educational qualifications alone does not guarantee greater sustainability reporting in the sampled energy and industrial firms, thus leading to the rejection of H1 and H2. Firm size (X3) and leverage (X4), however, significantly affect disclosure, supporting H3 and H4, which suggests that larger firms and those with higher debt levels are more motivated to enhance transparency through sustainability reporting.

Regarding moderation, financial performance (ROA) significantly strengthens the relationship between firm size and disclosure (H7) and between leverage and disclosure (H8), demonstrating that profitable companies are better able to leverage their size and financial structure to improve sustainability reporting. Conversely, financial performance does not significantly moderate the effects of board size or CEO education (H5 and H6), highlighting that governance characteristics may be less sensitive to financial performance in driving disclosure practices.

5. Discussion

The results indicate no significant relationship between board size (X1) and sustainability report disclosure (Y). Legitimacy theory suggests that disclosure is shaped more by external pressures and corporate strategies than by the number of directors, while larger boards may even reduce effectiveness due to coordination challenges. Stakeholder theory likewise emphasises that responsiveness to

stakeholder demands depends on awareness of social and environmental issues rather than board size. These findings are consistent with Orazalin et al. (2019), but contrast with Abdulwahab et al. (2023) and Alta'any et al. (2024). Similarly, no significant link is found between CEO educational background (X2) and disclosure practices. From a legitimacy perspective, reporting reflects organisational strategies to maintain credibility rather than leadership traits, while stakeholder theory highlights the influence of corporate culture, committees, or external pressures. Even highly educated CEOs may follow established strategies or owner directives over external input. These results align with Shahab et al. (2019) but differ from Jaturat et al. (2021).

The findings show that company size (X3) significantly influences sustainability report disclosure (Y). Legitimacy theory suggests that larger firms, facing greater scrutiny and stakeholder expectations, disclose more extensively to preserve legitimacy. Their wider stakeholder engagement further strengthens the need for comprehensive reporting. These results align with Abdulsalam and Babangida (2020) differ from Hidayah et al. (2024). Similarly, leverage (X4) significantly affects disclosure practices. Stakeholder theory posits that highly leveraged firms disclose sustainability information to reassure creditors and investors of their accountability, while legitimacy theory highlights disclosure as a tool to maintain trust under financial pressure. Such firms face stronger demands to signal responsibility and reduce concerns about risk. These findings are consistent with and Farooq et al. (2021), yet contradict Sitorus et al. (2024).

The results show that financial performance (Z) moderates the effect of board size (X1) on sustainability report disclosure by weakening the relationship. From a stakeholder theory lens, disclosure is driven more by stakeholder demands than financial conditions; thus, well-performing firms may disclose less unless pressured, while financially weaker firms may use disclosure to attract support. Legitimacy theory likewise suggests that strong financial results reduce the perceived need for sustainability reports as a legitimisation strategy. These findings align with Orazalin et al. (2019) but differ from Sitorus et al. (2024). Financial performance (Z) also moderates the relationship between CEO educational background (X2) and disclosure, diminishing its impact. Legitimacy theory indicates that disclosure reflects organisational strategy rather than individual attributes, and education alone does not ensure responsiveness to legitimacy pressures. Even under favourable financial conditions, disclosure remains limited without external legitimacy challenges. These results are consistent with Agustina (2021) and Yapinto et al. (2023), but contradict Safitri et al. (2024).

The results suggest that financial performance (Z) reinforces the effect of firm size (X3) on sustainability reporting practices. In line with legitimacy theory, larger and more profitable firms face greater public scrutiny and expectations, making disclosure both feasible and strategically valuable. Profitability thus reinforces firm size as a legitimacy tool. These results are consistent with Islamicati and Suryandari (2020), Orazalin et al. (2019), and Sitorus et al. (2024). Similarly, financial performance strengthens the effect of leverage (X4) on disclosure. Highly leveraged firms are pressured to maintain stakeholder trust, and strong financial performance provides the resources to improve transparency regarding social, environmental, and governance practices (Madona, 2020). This dual condition increases disclosure as a means to sustain legitimacy, attract investment, and reduce debt-related risks. However, these findings diverge from Islamiati and Suryandari (2020).

Under POJK Number 51/POJK.03/2017, Indonesian firms face gradual sustainability reporting mandates, leading to uneven implementation. This may explain why governance variables like board size and CEO education show limited impact, while firm size, leverage, and financial performance remain key drivers. Regulatory rollout, sector pressures, and enforcement stages shape disclosure

practices, illustrating that theoretical expectations are influenced by Indonesia's specific regulatory context.

6. Conclusion

This study finds that sustainability report disclosure among Indonesian energy and industrial firms is significantly influenced by firm size and leverage, while board size and CEO educational background do not exert a significant effect. Financial performance plays a moderating role, weakening the impact of governance characteristics (board size and CEO education) but reinforcing the effects of firm size and leverage on disclosure. These results suggest that larger, highly leveraged, and financially strong firms are more capable and motivated to enhance transparency, strengthen legitimacy, and meet stakeholder expectations.

From a managerial perspective, companies should focus on leveraging financial strength and structural characteristics to improve sustainability reporting, particularly as regulatory expectations under POJK Number 51/POJK.03/2017 became stricter. Firms with limited resources may need to prioritize governance and strategic initiatives to comply with reporting mandates. For policymakers, the findings indicate that gradual enforcement of mandatory sustainability reporting may contribute to uneven disclosure, highlighting the need for guidance, monitoring, and capacity-building programs to ensure consistent compliance across sectors.

The study is limited by its focus on only four independent variables, a five-year observation period (2019–2023), and exclusive attention to energy and industrial firms listed on the IDX. Moreover, the R^2 value of 27.51% indicates that other factors, such as board independence, institutional ownership, or firm culture, may also drive disclosure practices. Future research should expand the sample to include more sectors, examine additional corporate governance and environmental variables, and incorporate post-2021 data to capture the effects of mandatory reporting requirements more accurately. The study underscores the importance of firm characteristics and financial performance in shaping sustainability reporting in Indonesia, providing insights for both corporate managers and regulators seeking to strengthen transparency, accountability, and stakeholder trust.

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Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.



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