International Journal of Economics Development Research, Volume 6(6), 2025 pp. 4089-4103

The Moderating Role of Board Characteristics in the Relationship Between Firm Factors and ESG Performance in Indonesia

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Abstract:

This study aims to analyze the influence of firm-specific characteristics namely firm size, firm age, profitability (ROA), and leverage (DAR)on Environmental, Social, and Governance (ESG) performance, with the Board Size of Commissioners (BSC) and Board Independence of Commissioners (BIC) as moderating variables. The research employs a quantitative causal approach using secondary data from 78 non-financial companies listed on the Indonesia Stock Exchange during 2019–2023, generating 390 firm-year observations. Data were analyzed using multiple linear regression with the Moderated Regression Analysis (MRA) method through SPSS 26. The results indicate that firm age positively and significantly affects ESG performance, while profitability (ROA) has a significant negative influence. Firm size and leverage show no significant effects. Furthermore, BSC strengthens the relationship between firm size and profitability with ESG, whereas BIC enhances the link between profitability and ESG performance. These findings highlight the critical role of corporate governance mechanisms in aligning financial objectives with sustainability goals, providing valuable insights for companies and policymakers to improve ESG governance practices in Indonesia.

Keywords: *Corporate Governance, ESG Performance, Firm Characteristics*

Submitted: October 1, 2025, Accepted: November 4, 2025, Published: November 15, 2025

1. Introduction

Sustainability and corporate responsibility have become strategic imperatives in the modern business landscape. In Indonesia, the increasing awareness of environmental, social, and governance (ESG) performance is reshaping corporate behavior, particularly in non-financial sectors listed on the Indonesia Stock Exchange (IDX). ESG performance not only reflects a company's commitment to long-term value creation but also represents its resilience against social and environmental challenges. The growing global emphasis on sustainable investment, coupled with regulatory encouragement by the Otoritas Jasa Keuangan (OJK) through the Sustainable Finance Roadmap, has driven Indonesian companies to integrate ESG practices into their corporate governance frameworks. However, despite the increasing adoption of sustainability principles, variations in ESG performance across firms indicate that

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internal corporate factors and governance structures play a decisive role in determining sustainability outcomes.

Empirical evidence shows that company-specific characteristics such as firm size, firm age, profitability, and leverage are significant determinants of ESG performance (H. Ding et al., 2024; Drempetic et al., 2020). Larger and more established firms often have more resources and public visibility to adopt sustainability initiatives, while profitability and leverage determine a company's financial capacity to support ESG programs. Nonetheless, research findings on these relationships remain inconsistent. For instance, some studies report that firm size and profitability positively influence ESG performance (Aydoğmuş et al., 2022), while others find insignificant or even negative effects (Ridwan & Alghifari, 2025). These mixed findings suggest that the relationship between firm characteristics and ESG performance may not be direct but rather contingent upon the quality of corporate governance mechanisms that regulate managerial discretion and accountability.

Corporate governance, particularly the board of commissioners, serves as a crucial moderating factor in ensuring that financial and operational decisions align with sustainability principles. The Board Size of Commissioners (BSC) and the Board Independence of Commissioners (BIC) are considered key governance attributes influencing oversight effectiveness and strategic sustainability direction. Larger boards may provide diverse perspectives that enhance ESG commitment (Al Amosh, 2025), whereas an excessive number of commissioners may lead to coordination inefficiencies (Finke, 2020; Senninger et al., 2021). Similarly, independent commissioners are expected to strengthen ESG performance through objective supervision (Maroun, 2022), though some evidence suggests their impact may vary depending on firm maturity and leadership dynamics (Lewellyn & Muller-Kahle, 2024). These inconsistencies highlight the necessity to further examine how board characteristics moderate the relationship between firm-level financial factors and ESG outcomes.

The urgency of this research lies in the limited empirical exploration of ESG determinants within the context of Indonesia's emerging market, particularly concerning the moderating role of board characteristics. Previous studies have predominantly focused on direct effects between firm performance and ESG disclosure, neglecting the potential mediating influence of governance mechanisms. Furthermore, most ESG-related studies in Indonesia have relied on qualitative approaches or focused solely on environmental dimensions, leaving a significant gap in quantitative analysis that integrates financial indicators and governance variables in a single framework. Hence, this study contributes to the literature by employing a Moderated Regression Analysis (MRA) approach to examine how BSC and BIC moderate the influence of firm size, firm age, ROA, and DAR on ESG performance.

The novelty of this study lies in its comprehensive integration of financial structure variables and governance mechanisms to explain ESG performance variations within the Indonesian corporate context. By incorporating both board size and independence as moderators, this research introduces a multidimensional governance model that captures the complex interplay between financial capacity and sustainability oversight. Moreover, this study focuses on non-financial sectors—industries most exposed to environmental and social scrutiny—thereby offering practical insights for policymakers, investors, and corporations aiming to align financial growth with sustainable value creation.

Theoretically, this study is grounded in the Agency Theory and Stakeholder Theory, which together explain how governance structures mediate the relationship between financial characteristics and social responsibility. From the agency perspective, an effective board mitigates managerial opportunism by aligning corporate decisions with long-term ESG objectives (Maneenop et al., 2024). Meanwhile, stakeholder theory posits that firms with robust governance and sound financial positions are more responsive to stakeholder expectations regarding sustainability performance (Manning et al., 2019). Synthesizing these perspectives, this research proposes that firm size, profitability, leverage, and longevity affect ESG outcomes not only directly but also through governance mechanisms that enhance accountability and sustainability alignment.

Therefore, this study aims to analyze the effect of firm size, firm age, profitability (ROA), and leverage (DAR) on ESG performance, with Board Size of Commissioner (BSC) and Board Independence of Commissioner (BIC) serving as moderating variables in non-financial companies listed on the Indonesia Stock Exchange during the 2019–2023 period. The findings are expected to enrich the theoretical discourse on corporate governance and sustainability while providing empirical evidence for improving ESG governance practices in emerging markets like Indonesia.

2. Theoretical Background

Environmental, Social, and Governance (ESG) Performance: ESG performance reflects a company's commitment to balancing economic objectives with environmental protection, social responsibility, and governance transparency. It serves as an integrated framework for evaluating how firms manage non-financial risks and opportunities that affect long-term value creation (Schoenmaker & Schramade, 2019). The concept of ESG is rooted in the Triple Bottom Line Theory, which emphasizes the simultaneous pursuit of profit, people, and planet (Mishra & Pandey, 2025). Within Indonesia's regulatory environment, ESG disclosure has been encouraged through the *OJK Sustainable Finance Roadmap*, positioning sustainability reporting as a measure of corporate accountability. However, disparities in ESG performance across firms indicate that internal organizational and financial characteristics play an essential role in determining sustainability outcomes. Understanding these determinants is vital for identifying how corporate behavior can align with global sustainability goals and investor expectations.

Firm Size: Firm size is a fundamental internal characteristic influencing ESG performance. Larger firms typically possess more financial and human resources, higher public visibility, and greater stakeholder pressure, which motivate them to adopt sustainability practices more comprehensively (Latip et al., 2022). According to Stakeholder Theory, larger companies face greater accountability to diverse stakeholders, encouraging them to enhance transparency and ESG disclosures to maintain legitimacy (Wong et al., 2021). D'Amato & Falivena (2020) found a positive association between firm size and CSR engagement, while D'Costa et al (2025) identified that firm size does not always guarantee better ESG outcomes, particularly when sustainability initiatives are symbolic rather than substantive. This inconsistency suggests that while firm size may enhance the capacity for ESG activities, the quality of corporate governance often determines the effectiveness of implementation.

Firm Age: Firm age represents the length of time a company has been in operation and reflects its experience, maturity, and adaptability to environmental and social challenges. Older firms generally have more established governance systems and stakeholder relationships, which can lead to improved ESG performance (Albitar et al., 2020). From the perspective of Legitimacy Theory, long-standing firms have a stronger motivation to maintain societal legitimacy through transparent ESG practices, as their reputation and survival depend on sustained trust (Bernard et al., 2025). However, some mature firms may become less flexible in responding to new sustainability demands due to organizational inertia. Therefore, while firm age may positively correlate with ESG disclosure, the extent of its influence often depends on the firm's governance responsiveness and strategic renewal capability.

Profitability (Return on Assets – ROA): Profitability, often measured through Return on Assets (ROA), indicates a firm's ability to generate earnings relative to its total assets. Financially strong firms have greater capacity to invest in sustainability initiatives, such as waste management, employee welfare, and ethical governance (Shabbir & Wisdom, 2020). This aligns with the Slack Resources Theory, which posits that profitable firms can allocate surplus resources toward social and environmental programs. However, empirical studies present mixed findings: some reveal a positive relationship between profitability and ESG performance (Cesarone et al., 2022), while others find a negative or insignificant effect (V. D'Amato et al., 2024). The contradiction arises because profit-oriented companies may prioritize short-term returns over long-term sustainability investments. Consequently, the interaction between profitability and governance quality becomes critical in determining whether financial success translates into enhanced ESG outcomes.

Leverage (Debt to Asset Ratio – DAR): Leverage reflects the proportion of debt used to finance a firm's assets and indicates the level of financial risk borne by the company. Firms with higher leverage face stricter scrutiny from creditors, which may constrain their ability to allocate funds to ESG initiatives (Zhao et al., 2025). On the other hand, moderate leverage can encourage better governance discipline and enhance ESG disclosure as firms strive to maintain credibility and investor confidence. According to the Agency Theory, high debt levels can exacerbate conflicts between shareholders and creditors, shifting management's focus toward debt repayment and away from sustainability concerns (Adeoye et al., 2021).

Therefore, leverage is expected to have either a neutral or negative influence on ESG performance, depending on the firm's capacity to balance financial obligations with social and environmental commitments.

Corporate Governance and Board Characteristics: Corporate governance mechanisms, particularly the board of commissioners, are pivotal in overseeing management behavior and ensuring that corporate decisions align with sustainability principles. Two critical attributes in governance quality are Board Size of Commissioners (BSC) and Board Independence of Commissioners (BIC)**.** A larger board may offer broader expertise and diverse perspectives, improving oversight and strategic direction for ESG-related policies (Al Amosh, 2025; Elamer & Boulhaga, 2024). However, excessively large boards may lead to communication inefficiencies and slower decision-making processes (Tabesh & Vera, 2020). Meanwhile, board independence enhances objectivity and accountability, ensuring that management upholds stakeholder interests and ethical standards (BS & BANERJEE, 2025). The Agency Theory emphasizes that independent commissioners reduce managerial opportunism, while the Resource Dependence Theory suggests that board diversity strengthens access to external resources, improving ESG responsiveness (Jeyhunov et al., 2025). Thus, variations in BSC and BIC structures can significantly moderate the impact of firm-specific financial factors on ESG outcomes.

3. Methodology

This research employs a quantitative causal approach, to examine the influence of firm-specific characteristics on sustainability performance. The study focuses on non-financial public companies listed on the Indonesia Stock Exchange (IDX). These companies were selected using a purposive sampling technique based on several criteria: (1) consistently listed on the IDX during the observation period (2019–2023), (2) publishing annual reports regularly, and (3) having Environmental, Social, and Governance (ESG) scores available from international rating agencies. A total of 78 companies met these criteria, generating 390 firm-year observations collected over three months. The data used in this study are secondary data obtained from the IDX database and annual reports, which include both financial information and ESG ratings accessed through each company's official website.

The data analysis technique employed in this study is multiple linear regression with a Moderated Regression Analysis (MRA) approach, conducted using SPSS version 24. This analytical method allows for the assessment of how Firm Size, Firm Age, Return on Assets (ROA), and Debt to Asset Ratio (DAR) influence ESG performance, while also testing the moderating effects of Board Size of Commissioners (BSC) and Board Independence of Commissioners (BIC). Prior to hypothesis testing, classical assumption tests such as normality, multicollinearity, and heteroskedasticity were performed to ensure model reliability. This methodological design enables a robust examination of how internal financial characteristics and governance structures interact to shape the ESG performance of Indonesian non-financial companies.

4. Empirical Findings/Result

Descriptive Statistical Analysis

Descriptive statistical analysis was conducted to provide an overview of the data characteristics of each variable used in this study, including the minimum, maximum, mean, and standard deviation values. The results of the descriptive analysis are presented in Table 1.

Table 1. Descriptive Statistical Results

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Firm Size	390	28.22	34.47	31.0634	1.12028
Firm Age	390	7	48	25.2821	9.32269
Return on Asset	390	-130.4	43.37	4.6433	11.52376
Debt to Asset Ratio	390	0	200.37	25.8989	22.50418
Board Size of Commissioner	390	2	15	5.4769	2.05908
Boar Independence of Commissioner	390	20	100	44.1641	12.53535
ESG Score	390	28.22	34.47	31.0634	1.12028
Valid N (listwise)	390				

Sources: Data processed from SPSS, 2025

The results show that Firm Size has a mean of 31.06, indicating that most companies in the sample are relatively large and financially capable of implementing sustainability practices. Firm Age has an average of 25.28 years, suggesting that the majority of firms are mature and experienced in governance and sustainability reporting. The ROA variable displays high variation, with a mean of 4.64 and a wide range between -130.40 and 43.37, implying that while most firms are profitable, some experience losses that may hinder ESG initiatives. DAR shows considerable variability (mean = 25.89, SD = 22.50), reflecting differences in capital structures across firms. The average Board Size of Commissioners is 5.47, suggesting an optimal governance size, while Board Independence averages 44.16%, consistent with good corporate governance standards. Finally, the ESG Score has a mean value of 48.07, indicating that overall ESG performance among non-financial firms in Indonesia remains at a moderate level, with considerable variation across the sample.

Classical Assumption Tests

Normality Test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		390
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	11.18586439
Most Extreme Differences	Absolute	.039
	Positive	.030
	Negative	-.039
Test Statistic		.039
Asymp. Sig. (2-tailed)		.178[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.

Figure 1. Kolmogorov-Smirnov Test Results
Sources: Data processed from SPSS, 2025

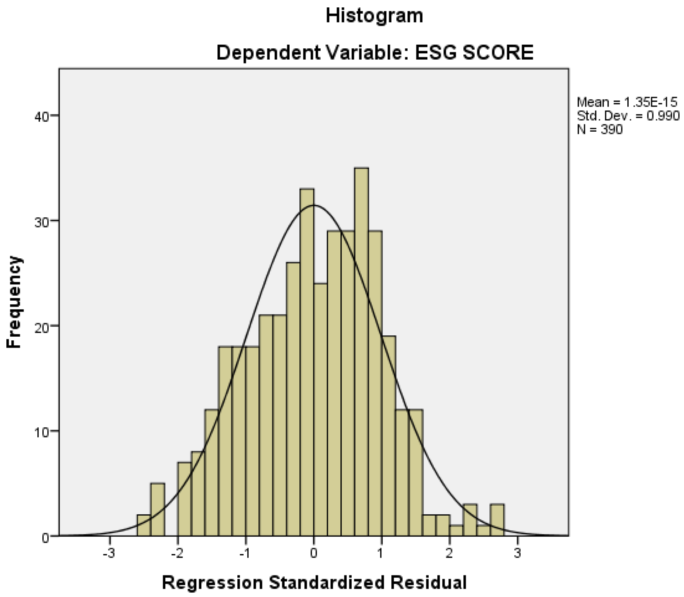

Figure 2. Histogram Test Results
Sources: Data processed from SPSS, 2025

The Kolmogorov–Smirnov test was employed to assess the normality of residuals in the regression model. The results show an Asymp. Sig. (2-tailed) value of 0.178 > 0.05, indicating that the residuals are normally distributed. Hence, the model satisfies the normality assumption, allowing further regression analysis.

Multicollinearity Test

The multicollinearity test was conducted to verify whether correlations exist among independent variables. A regression model is considered free from multicollinearity if Tolerance > 0.10 and VIF < 10. The results presented in Table 2 indicate that all tolerance values exceed 0.10, and all VIF values are below 10.

Table 2. Multicollinearity Test Results

Interaction Variable	Tolerance	VIF	Description
The Effect of Firm Size on ESG Score, Moderated by BSC (X1.Z1)	0.141	7.104	Free From Multicollinearity
The Effect of Firm Age on ESG Score, Moderated by BSC (X2.Z1)	0.151	6.619	Free From Multicollinearity
The Effect of ROA on ESG Score, Moderated by BSC (X3.Z1)	0.106	9.400	Free From Multicollinearity
The Effect of DAR on ESG Score, Moderated by BSC (X4.Z1)	0.12	8.346	Free From Multicollinearity
The Effect of Firm Size on ESG Score, Moderated by BIC (X1.Z2)	0.657	1.522	Free From Multicollinearity
The Effect of Firm Age on ESG Score, Moderated by BIC (X2.Z2)	0.239	4.177	Free From Multicollinearity
The Effect of ROA on ESG Score, Moderated by BIC (X3.Z2)	0.092	10.868	Free From Multicollinearity
The Effect of DAR on ESG Score, Moderated by BIC (X4.Z2)	0.154	6.504	Free From Multicollinearity

Sources: Data processed from SPSS, 2025

These results confirm that no serious multicollinearity exists between the independent and moderating variables. Although the VIF for X3.Z2 approaches the upper limit, the corresponding tolerance value remains acceptable, validating the model's reliability.

Heteroscedasticity Test

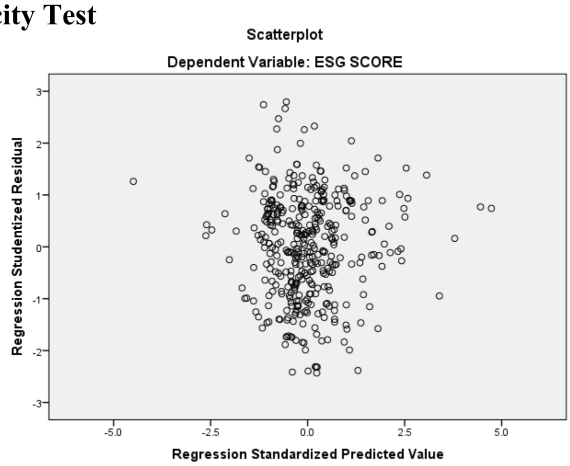

Figure 3. Scatterplot Test Results
Sources: Data processed from SPSS, 2025

A scatterplot test was used to detect heteroscedasticity. As shown in Figure 1, the residual points are randomly distributed above and below the zero line, without forming any discernible pattern such as convergence or divergence. This indicates the absence of heteroscedasticity problems, confirming that the regression model meets the assumption of homoscedasticity.

Multiple Linear Regression Analysis

Multiple linear regression analysis was performed to examine the influence of Firm Size, Firm Age, ROA, and DAR on ESG performance, with BSC and BIC as moderating variables. The results are shown in Table 3.

Table 3. Multiple Linear Regression Results

Model		Unstandardized Coeffitients		Standardized Coeffitients	t	Sig.
		B	Std. Er	Beta		
1	(Constant)	-5.389	17.695		-0.305	0.761
	Firm Size (X1)	1.066	0.631	0.1	1.691	0.092
	Firm Age (X2)	0.791	0.235	0.616	3.373	0.001
	ROA (X3)	-0.853	0.283	-0.822	-3.011	0.003
	DAR (X4)	-0.017	0.126	-0.033	-0.138	0.89
	The Effect of Firm Size on ESG Score, Moderated by BSC (X1.Z1)	0.122	0.036	0.684	3.387	0.001
	The Effect of Firm Age on ESG Score, Moderated by BSC (X2.Z1)	-0.098	0.033	-0.637	-2.951	0.003
	The Effect of ROA on ESG Score, Moderated by BSC (X3.Z1)	0.098	0.038	0.48	2.572	0.01
	The Effect of DAR on ESG Score, Moderated by BSC (X4.Z1)	-0.028	0.015	-0.302	-1.838	0.067
	The Effect of Firm Size on ESG Score, Moderated by BIC (X1.Z2)	0.007	0.004	0.091	1.56	0.12
	The Effect of Firm Age on ESG Score, Moderated by BIC (X2.Z2)	-0.007	0.003	-0.318	-2.089	0.037
	The Effect of ROA on ESG Score, Moderated by BIC (X3.Z2)	0.012	0.005	0.517	2.187	0.029
	The Effect of DAR on ESG Score, Moderated by BIC (X4.Z2)	0.002	0.002	0.159	0.794	0.428

a. Dependet Variable: ESG Score

Sources: Data processed from SPSS, 2025

The regression equation derived from the model is:

$$\text{ESG Score} = -5.389 + 1.066X1 + 0.791X2 - 0.853X3 - 0.017X4 + 0.122(X1.Z1) - 0.098(X2.Z1) + 0.098(X3.Z1) - 0.028(X4.Z1) + 0.007(X1.Z2) - 0.007(X2.Z2) + 0.012(X3.Z2) + 0.002(X4.Z2)$$

- **Firm Size (X1)** shows a positive but insignificant effect ($p = 0.092 > 0.05$), implying that larger firms tend to achieve higher ESG scores, although the relationship is not statistically strong.
- **Firm Age (X2)** has a positive and significant effect ($p = 0.001 < 0.05$), suggesting that older firms are more likely to implement sustainable practices due to their experience and governance maturity.
- **ROA (X3)** exhibits a negative and significant relationship ($p = 0.003 < 0.05$), indicating that highly profitable firms may prioritize financial performance over long-term sustainability investments.
- **DAR (X4)** has no significant impact on ESG performance ($p = 0.890 > 0.05$), showing that leverage level does not directly influence sustainability outcomes.

Regarding moderating effects:

- **BSC** strengthens the relationship between Firm Size and ESG ($\beta = 0.122$, $p = 0.001$), but weakens the link between Firm Age and ESG ($\beta = -0.098$, $p = 0.003$). It also reinforces the effect of ROA on ESG ($\beta = 0.098$, $p = 0.010$), while its moderation on DAR is insignificant ($p = 0.067$).
  BIC does not significantly moderate the effect of Firm Size ($p = 0.120$) or DAR ($p = 0.428$), but weakens the effect of Firm Age ($\beta = -0.007$, $p = 0.037$) and strengthens the effect of ROA ($\beta = 0.012$, $p = 0.029$) on ESG performance.

5. Discussion

The findings of this study highlight the complex relationships between firm characteristics, corporate governance mechanisms, and environmental, social, and governance (ESG) performance among non-financial companies listed on the Indonesia Stock Exchange during the 2019–2023 period. Based on the regression results from 390 firm-year observations, firm age shows a significant positive effect on ESG performance, whereas firm size and leverage demonstrate no significant influence. Interestingly, profitability (ROA) exhibits a significant negative relationship with ESG score, indicating that higher profitability does not necessarily translate into stronger sustainability practices. Furthermore, the moderating roles of the board size of commissioners (BSC) and board independence of commissioners (BIC) reveal differing patterns of influence, underscoring the importance of internal governance dynamics in shaping sustainability outcomes.

The result showing that firm size has a positive yet insignificant impact on ESG performance suggests that although larger firms tend to have greater resources and visibility to engage in sustainability initiatives, these advantages do not always guarantee consistent implementation. This finding partially aligns with Stakeholder Theory, which posits that large firms face stronger social pressures and legitimacy demands (Crossley et al., 2021). However, the absence of a significant effect supports. Drempetic et al (2020), who found that firm size alone cannot explain ESG variations without effective managerial commitment or governance mechanisms to translate resources into concrete sustainability actions.

In contrast, firm age demonstrates a significant positive effect on ESG performance. Older firms tend to display greater organizational maturity, better institutionalized governance systems, and longer exposure to stakeholder expectations. This result reinforces Legitimacy Theory, which suggests that firms that have operated longer strive to maintain legitimacy through sustained engagement in social and environmental initiatives (Kuruppu et al., 2019). Similar findings were reported by Annesi et al (2025), emphasizing that experience and stability enable firms to integrate ESG concerns more effectively into strategic decision-making.

Unexpectedly, ROA (profitability) exhibits a significant negative relationship with ESG performance. This implies that firms with higher profitability may prioritize short-term financial returns over long-term sustainability investments. This outcome resonates with Lajnef & Ellouz (2025) shareholder primacy perspective, which argues that profit-maximizing behavior often overshadows social responsibility considerations. Nonetheless, the finding also aligns with Alsayegh et al (2020), who noted that the financial success of firms does not automatically enhance ESG disclosure or performance unless driven by strong ethical leadership and governance structures.

Meanwhile, leverage (DAR) shows an insignificant negative effect, indicating that the degree of debt financing does not substantially influence a company’s ESG performance. This may reflect managerial caution among highly leveraged firms that prioritize financial stability over sustainability initiatives. X. Ding et al (2022) similarly found that firms with higher debt burdens tend to allocate fewer resources to social and environmental programs due to the financial constraints imposed by creditors.

The moderating analysis further reveals nuanced insights. The Board Size of Commissioners (BSC) strengthens the relationship between firm size and ESG score, supporting Agency Theory, which suggests that larger boards can provide greater oversight and diverse expertise, thereby enhancing sustainability governance (Naciti, 2019). However, when moderating the relationship between firm age and ESG, BSC exhibits a negative and significant coefficient, indicating that excessively large boards may hinder decision-making effectiveness in mature firms. This finding aligns with Hoppmann et al (2019), who argue that overly large boards can create coordination inefficiencies that reduce strategic responsiveness. Conversely, BSC strengthens the effect of ROA on ESG, implying that a well-composed board can help profitable firms balance financial objectives with sustainability priorities. Nonetheless, BSC’s moderating effect on the leverage–ESG relationship is negative and insignificant, suggesting that board expansion does not necessarily mitigate the financial pressures associated with high debt ratios.

Regarding Board Independence of Commissioners (BIC), the results show that independent commissioners play a limited yet context-dependent role. BIC fails to moderate the influence of firm size on ESG but significantly weakens the effect of firm age, indicating that independent boards in long-established firms may act conservatively, potentially restraining innovation in sustainability practices. This finding echoes Alam et al (2020), who noted that overly cautious independent directors may slow decision-making. However, BIC significantly strengthens the relationship between profitability and ESG performance, suggesting that independent oversight encourages financially successful firms to align with broader stakeholder expectations. In contrast, BIC does not significantly moderate the leverage–ESG link, confirming that independence alone does not ensure proactive sustainability governance when financial constraints dominate managerial focus.

Overall, these findings underscore that the interplay between firm characteristics and governance structures determines ESG outcomes. The results affirm that governance mechanisms, particularly board composition and independence, are crucial in translating financial capacity into sustainable business behavior. Theoretically, this study extends the integration of Agency Theory and Stakeholder Theory by demonstrating that board characteristics serve as critical moderating levers that can either enhance or weaken the effect of firm-specific variables on ESG performance. Practically, the findings suggest that non-financial firms in emerging markets like Indonesia should focus on optimizing board size and empowering independent commissioners to balance financial objectives with sustainability imperatives.

6. Conclusions

This study concludes that firm-specific financial characteristics and corporate governance mechanisms play an essential role in shaping the sustainability performance of non-financial companies listed on the Indonesia Stock Exchange during the 2019–2023 period. The results reveal that firm age has a positive and significant effect on ESG performance, indicating that mature firms tend to implement more structured sustainability practices due to their accumulated experience and established governance systems. In contrast, profitability (ROA) shows a significant negative relationship, implying that highly profitable firms may prioritize short-term financial returns over long-term environmental and social commitments. Firm size and leverage exhibit no significant effects, suggesting that resource availability or capital structure alone does not guarantee improved ESG outcomes. Moreover, the moderating analysis highlights that the Board Size of Commissioners (BSC) and Board Independence of Commissioners (BIC) influence how financial characteristics affect ESG performance—where optimal board composition and effective independence can enhance governance oversight and accountability toward sustainable practices.

From a practical perspective, the findings emphasize that improving ESG performance in Indonesian corporations requires strengthening the role of the board of commissioners, particularly in balancing profit orientation with sustainability goals. Firms should optimize board size to ensure effective decision-making while empowering independent commissioners to provide objective oversight and promote transparency. Policymakers and regulators, such as the OJK, can use these insights to refine governance regulations and ESG disclosure standards to enhance sustainability accountability in emerging markets. However, this study has limitations related to the scope of data and observation period, which may not capture dynamic ESG changes across different industries. Future research is recommended to expand the dataset, integrate additional governance and institutional variables, and apply longitudinal or panel data methods to provide deeper insights into the evolving interaction between corporate governance and sustainability performance in Indonesia's non-financial sectors.

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