HOW BOARD SIZE MODERATES THE EFFECT OF CEO POWER ON ESG

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ABSTRACT

This study aims to explore how CEO Power affects ESG with the moderating role of board size which the answer is remains unexplored, while in the extant literature the impact of ESG is the most discussed. The findings was conducted on public companies listed on the Indonesia Stock Exchange (IDX) reveal that the direct impact of CEO Power on ESG performance is significant. However,the result of the moderating effect of Board Size does not show a significant effect. The findings of this study contributes by revealing how CEO Power affects ESG with the moderating role of Board Size.

Keywords : CEO Power; ESG; Board Size

ABSTRAK

Penelitian ini bertujuan untuk mengkaji bagaimana kekuasaan CEO memengaruhi kinerja ESG dengan peran moderasi ukuran dewan direksi, yang hingga kini masih belum banyak diteliti. Sebagian besar literatur yang ada lebih banyak membahas dampak ESG itu sendiri. Hasil penelitian yang dilakukan pada perusahaan publik yang terdaftar di Bursa Efek Indonesia (BEI) menunjukkan bahwa pengaruh langsung kekuasaan CEO terhadap kinerja ESG bersifat signifikan. Namun, hasil pengujian efek moderasi ukuran dewan direksi tidak menunjukkan pengaruh yang signifikan. Temuan penelitian ini memberikan kontribusi dengan mengungkap bagaimana kekuasaan CEO memengaruhi kinerja ESG melalui peran moderasi ukuran dewan direksi.

Kata Kunci : CEO Power; ESG; Board Size

INTRODUCTION

Along with environmental damage and climate change issues and the deforestation data in Indonesia, the concept of sustainable development has become a primary focus for stakeholders worldwide, particularly in Indonesia (Ulinnuha, Harymawan, & Aini, 2024). According to Lee & Hooy, (2024) for the public-listed companies to making sure their sustainability and focusing on the companies successability in the long-term, ESG is the most importance by increase sounding for a better corporate governance, putting more attention in environmental issues and develop deeper commitment on social impact. The purpose of the environmental, social, and governance (ESG) is to ensure that while the businesses goal orient their practice companies could draw attention from investors, regulators and companies worldwide.

The greater shareholdings owned by the company CEOs have a greater probability to steer the company away from sustainability measures. Similarly, CEO expert power increases with longer tenures, and is associated with poorer business sustainability (Lee & Hooy, 2024).

A powerful CEO within the management board who is assumed to have a better influence on (non) financial performance and disclosure is able to strengthen the ESG–financial performance relationship (Velte, 2020). Efforts to optimize company decision-making in sustainable reporting and financial control efficiency are determined by competent CEOs (Ulinnuha et al., 2024).

In their recent study of Chinese-listed firms from 2007 to 2022, Yin & Xu, (2025) find that when boards of directors become larger, companies are more prone to ESG controversies an outcome that goes beyond mere statistics to reflect deeper challenges: decision-making slows, conflicts of interest arise, and the diffusion of leadership makes it harder to detect and act on ethical or environmental issues. What makes this all the more poignant is how it collides with cultural norms: in China, collective decision-making valuing harmony, consensus, and balancing multiple stakeholders is deeply ingrained; yet in moments of ESG crisis, these virtues can ironically become obstacles to clarity, responsibility, and timely action. The relationship of board size with idiosyncratic volatility that accumulated in social and ESG performance in terms of moderating effect seems to appears negligible. While the relationship of environmental performance that on idiosyncratic volatility in company with larger boards seems to wanes but the idea about larger board are often more susceptible to contraventions with environmental regulations seems to be align in this observation (Qian & Yang, 2023). According to Treepongkaruna, Kyaw, & Jiraporn, (2024) the board size was negatively related with ESG controversies; because of the significant positive coefficient that showed by the Board size, there seems to be significantly lower the amout of ESG controversies while the board size increase.

Most existing studies have been conducted in developed economies or other emerging markets, leaving Indonesia largely unexplored. Yet, Indonesia has unique institutional characteristics, regulatory frameworks, and corporate governance practices that may lead to different dynamics compared to other countries. Without evidence from this context, the applicability of existing findings remains uncertain. This study aims to address these gaps. On the theoretical side, it deepens the discussion in corporate governance and ESG literature by exploring the moderating role of board size in the relationship between CEO Power and ESG Performance. On the empirical side, it provides fresh evidence from Indonesia, offering insights from a market that has so far been underrepresented in academic research. Beyond theory and data, the study also carries practical value: its findings can inform policymakers, regulators, and corporate leaders about how board structures may be designed to strengthen ESG practices while reducing firm-specific risks.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Agency Theory

According to Nasta, Magnanelli, & Ciaburri, (2024) highlighting to ensure best interest of principal by aligning incentives to agent and maintaining the relationship between principlas (shareholders) and agents (CEOs) is the focuses of agency theory. In this context, the theory suggests that CEOs, who are responsible for making operational and strategic decisions, might prioritize their own goals over those of the shareholders. Therefore, it's important to create systems that motivate the CEO to work in the shareholders' best interests like performance-based bonuses or stock options. In short, agency theory proposes ways to make sure CEOs are incentivized to make choices that benefit the company and its owners, while minimizing the chances of self-serving decisions that could harm shareholder value.

CEO Power and ESG

Regarding its impact on ESG performance Lee & Hooy, (2024) emphasize that greater CEO power significantly shapes firms' ESG outcomes. This is supported by recent studies (Cabreros, de la Fuente, & Velasco, 2024; Ulinnuha et al., 2024; Xia, Thewissen, Huang, & Yan, 2024) which find that empowered CEOs are more capable of advancing sustainability initiatives within their organizations. Based on these insights, the following hypothesis is proposed:

H1: CEO power exerts a significant positive impact on ESG performance.

The Moderating Effect of Board Size

(Zachary & Fuad, 2025) assert that board size positively influences ESG performance in a significant way. In contrast, Ding, Wang, Xu, & Lin, (2024) conclude that board attributes, including size, do not meaningfully affect ESG outcomes. This implies that simply expanding the board may not improve ESG results unless it is supported by other organizational or strategic reforms. In the context of non-state-owned firms, larger boards have been associated with diminished ESG performance, likely due to reduced managerial efficiency and slower decision-making processes. But from another perspective Treepongkaruna, Kyaw, & Jiraporn, (2024) find that companies with bigger boards tend to face fewer ESG controversies, suggesting a negative correlation between board size and ESG-related disputes. Moreover, Yang, Sheikh Hassan, Lau, & Ab Razak, (2023) observe that the influence of board size as a moderator in the link between both social and aggregate ESG performance and idiosyncratic volatility is negligible, corroborating earlier studies that reported an insignificant relationship between board size and sustainability commitment. Considering these varied results, the following hypothesis is proposed:

H2: Board size moderates the relationship between CEO power and ESG.

METHODOLOGY

Method is a method of work that can be used to obtain something. While the research method can be interpreted as a work procedure in the research process, both in searching for data or disclosing existing phenomena (Zulkarnaen, W., et al., 2020). This research aim to asses and measure how CEO Power affect ESG and how is the relationship is moderated by the board size as the primary objective of this study. Therefore, to achieve this objective an exhaustive analysis was conducted through Ordinary Least Squares (OLS) data analysis method. The sampling method used in this study was a purposive sampling method therefore, the population of this study foucs on all companies that was listed on the Indonesia Stock Exchange (IDX) as a public company that have Environmental, Social, and Governance (ESG) scores. There are no exceptions in terms on company sectors, to achieve maximum result and provide accurate result therefore, in this study a total of 86 companies data that have complete and accessible ESG scores from Refinitiv database from 2018 to 2022 was chosen to become the sample in this study.

The data utilized in this study were secondary in nature, sourced from the Indonesia Stock Exchange (IDX). CEO power is a multifaceted construct often measured through several dimensions. According to Velte, (2020), CEO power comprises four key components: CEO Ownership (the CEO's shareholding relative to the industry median), CEO Tenure (the length of time the CEO has held office relative to the industry median), CEO Pay Slice (the proportion of total top executive compensation captured by the CEO). Additionally, Wang, Pei, & Liang, (2022) highlight other CEO characteristics, such as CEO Gender, CEO Education, and CEO Duality, which influence strategic decision-making and firm risk-taking. Given the complexity of CEO power, this study employs CEO Ownership, CEO Tenure, CEO Education, and the CEO Power Index as measures of CEO power. By including these variables, the study will have a more accurate analysis, making sure that the results are not influenced by other factors. The data utilized in the analysis of this study is based on secondary data obtained from publicly accessible sources, including annual reports, sustainability reports, and legally available databases. The data is already in the public domain, the research does not involve human participants or the collection of personal or sensitive information.

Model 1 (Direct Effect) :

$$ESG = \alpha + \beta 1\ CEOPI + \beta 2\ FS + \beta 3\ BSIZE + \beta 4\ LEV$$

Model 2 (Moderation Effect) :

$$ESG = \alpha + \beta 1\ CEOPI + \beta 2\ BSIZE + \beta 3\ CEOPI \times BSIZE + \beta 4\ FS + \beta 5\ LEV$$

Submitted : 20/09/2025 |Accepted : 19/10/2025 |Published : 20/12/2025:
P-ISSN; 2541-5255 E-ISSN: 2621-5306 | Page 2522

RESULT AND DISCUSSION

The descriptive statistics reveal that the average ESG score of the sampled firms is 52.85, reflecting a moderate level of sustainability performance with notable dispersion across the dataset. The CEO Power Index (mean = 1.73) indicates variability in CEO authority within the firms, suggesting that each CEO possesses at least one element of CEO power. Board size averages 8 members, indicating a moderate governance structure, although board composition varies substantially across firms. This also aligns with governance regulations applicable to publicly listed companies in Indonesia. Firm size, measured in logarithmic terms, has a mean of 31.85, highlighting generally large firms with significant heterogeneity. Leverage shows considerable variation (mean = 0.58), indicating diverse financial risk profiles and a tendency toward higher debt usage.

A Pearson correlation analysis was carried out to explore how ESG performance relates to CEO power (CEOPI), firm size (FS), and leverage (LEV). The findings reveal a moderate and statistically significant positive relationship between ESG and firm size ($r = 0.500$, $p < 0.001$), indicating that larger companies are more likely to implement ESG practices—possibly because they have more resources and face greater public attention. There is also a weak but significant correlation between ESG and leverage ($r = 0.168$, $p < 0.001$), which may suggest that companies with higher debt levels use ESG initiatives to strengthen their credibility with investors and stakeholders. On the other hand, the relationship between ESG and CEO power appears to be negligible and not statistically significant ($r = 0.008$, $p = 0.706$), meaning that the level of power held by a CEO does not seem to influence a firm's ESG efforts in this context. Meanwhile, CEO power is weakly but significantly correlated with both firm size ($r = 0.155$, $p < 0.001$) and leverage ($r = 0.117$, $p < 0.001$). Importantly, all correlation values are well below the commonly accepted threshold for multicollinearity concerns, suggesting that the data is suitable for further regression analysis.

ESG and CEO power (CEOPI) are negatively correlated, suggesting that less powerful CEOs are better able to advance sustainability initiatives. However, the regression shows that BSIZE have a less significant effect on ESG and the moderation effect of BSIZE on CEOPI and ESG also have a less significant effect. While at the others side, CEOPI show bigger significant negative effect on ESG while involving BSIZE, which giving the idea that the bigger the BSIZE the more significant negative effect of CEOPI on ESG . Additionally, there is a strong positive correlation between firm size (FS) and ESG, supporting the idea that larger businesses, with more resources and under more public scrutiny, are more likely to implement comprehensive

After applying the Coarsened Exact Matching (CEM) technique to reduce selection bias inherent in observational data, a regression analysis was conducted to examine the influence of

CEO Power Index (CEOPI), Firm Size (FS), and Leverage (LEV) on firms' Environmental, Social, and Governance (ESG) scores. The regression results reveal that the CEO Power Index (CEOPI) has a negative and statistically significant effect on ESG scores ($\beta = -1.957$; $t = -3.830$; $p < 0.01$). This finding suggests that greater CEO power is associated with lower ESG performance. This aligns with agency theory (Jensen & Meckling, 1976), which posits that excessive concentration of power in a single executive may weaken governance oversight and reduce accountability, thereby limiting the organization's commitment to sustainability practices.

Firm Size (FS) shows a strong and positive association with ESG scores ($\beta = 6.360$; $t = 23.017$; $p < 0.01$). Larger firms are more likely to adopt and report ESG initiatives due to increased public scrutiny, greater stakeholder pressure, and more abundant resources. This result is consistent with prior studies indicating that firm size plays a critical role in determining ESG engagement and disclosure. In contrast, Leverage (LEV) is found to be statistically insignificant ($\beta = 1.848$; $t = 1.007$; $p > 0.05$), suggesting that a firm's capital structure or debt level does not have a meaningful impact on ESG performance in this sample. This could imply that ESG initiatives are not necessarily contingent on the firm's financial leverage, or that the leverage levels across firms are relatively homogenous. The R-squared value ($R^2 = 0.251$) indicates that approximately 25.1% of the variance in ESG scores can be explained by the model. This reflects a moderate explanatory power, suggesting that other unobserved factors may also influence ESG performance.

CONCLUSION

This study highlights the significant role that CEO power and leadership characteristics play in shaping Environmental, Social, and Governance (ESG) performance within organizations, with particular focus on the Indonesian context. The findings suggest that CEOs with greater power, as reflected through ownership, tenure, and education, are likely to influence their firms' approach to sustainability initiatives. Specifically, while CEO power is positively correlated with ESG performance. The moderating role of board size further complicates these dynamics. The study found that the bigger the board size the more significant negative the effect between CEOPI and ESG,

In conclusion, while CEO power plays a pivotal role in shaping corporate ESG outcomes, the complex interplay between CEO characteristics and board size behaviors underscores the need for a more nuanced understanding of how leadership influences sustainability practices. Furthermore, the Indonesian two-tier corporate governance system, which provides independent oversight, may serve as an important mechanism for mitigating excessive CEO power and fostering more sustainable business practices. Future research could

expand on these findings by exploring the long-term implications of these relationships and assessing how governance structures in other emerging markets influence ESG outcomes.

This study analysis the effect of CEO Power on ESG performance by regconizing board size as a moderator variable. The findings was conducted on public companies listed on the Indonesia Stock Exchange (IDX) reveal that the direct impact of CEO Power on ESG performance is significant. However,the result of the moderating effect of Board Size show a significant effect. The findings of this study contributes by revealing how CEO Power affects ESG with the moderating role of board size. Secondly, this study's theoretical contribution is to provide theoretical literature through the result of this study. Additionally, this study gives insight to investors, regulators and so on in terms of sustainability development

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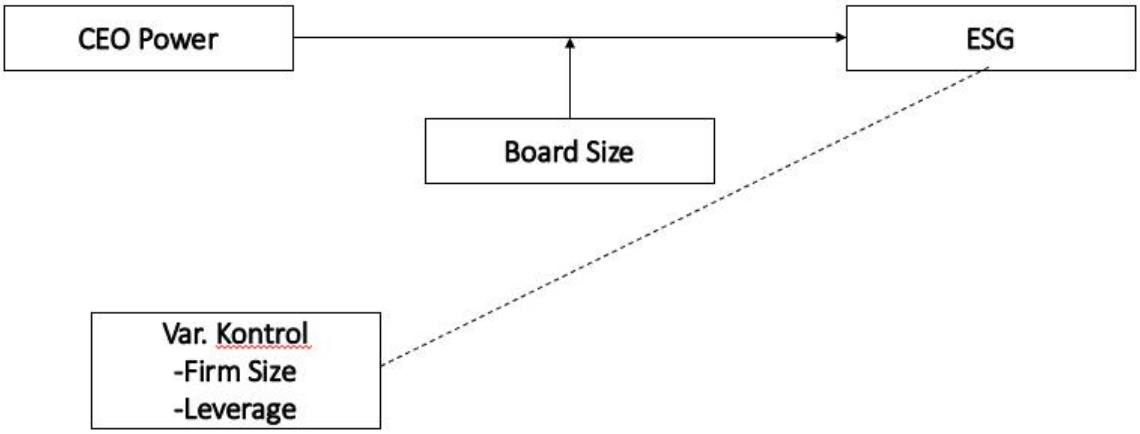
PICTURE AND TABLE



Picture 1. Conceptual Framework

Table 1. Variable Measurement

Variables	Measurement	Definition	Source
Dependent Variable			
ESG	ESG Score	Environmental, social and governance performance score.	(Velte, 2020)
Independent Variable			
CEO Power	Ownership	CEO ownership as the percentage of company stock held by the CEO related to industry median	(Velte, 2020)
	Power Index	CEO power index as addition of indicator variables that ranged between 0 and 3	(Velte, 2020)
	Tenure	CEO tenure as the number of years the CEO has been in office related to industry median	(Velte, 2020)
	Education	The CEO's education level, where 1 represents high school or lower, 2 represents junior college, 3 represents bachelor's degree, 4 represents master's degree, and 5 represents doctoral degree or above	(Wang et al., 2022)
Moderating Variable			
Board Size	Board Size	The number of directors on the board.	(Yin & Xu,

			2025)
Control Variable			
Size	Firm Size	Natural logarithm of total assets (firm size)	(Ulinnuha et al., 2024; Velte, 2020)
Leverage	Leverage	Debt to Equity Ratio	(Setiarini, Gani, Diyanty, & Adhariani, 2023)

Table 2. Descriptive Statistics

	Mean	Standard Deviation	Minimum	Maximum
ESG	52.846	19.922	10.050	87.600
CEOPI	1.727	0.755	0.000	3.000
BSIZE	8.015	2.773	2.000	17.000
FS	31.851	1.567	26.690	35.230
LEV	0.581	0.590	0.050	7.450

Source: Processed Data 2025

Table 3. Pearson Correlation Test

	ESG	CEOPI	FS	LEV
ESG	1.000			
CEOPI	0.008	1.000		
	(0.706)			
FS	0.500***	0.155***	1.000	
	(0.000)	(0.000)		
LEV	0.168***	0.117***	0.327***	1.000
	(0.000)	(0.000)	(0.000)	

Source: Processed Data 2025

Table 4. Regression Test

	(1)	(2)
	ESG	ESG
CEOPI	-1.974**	-5.795**
	(-2.14)	(-2.50)
BSIZE		1.431*
		(1.89)
CEOPIxBSIZE		0.498*
		(1.70)
FS	5.141***	2.310**
	(6.80)	(2.45)
LEV	0.428	-0.038
	(0.53)	(-0.05)
_cons	-111.852***	-33.484
	(-4.67)	(-1.21)
Industry FE	Yes	Yes
Year FE	Yes	Yes
r2	0.318	0.373
r2_a	0.314	0.368

N	2110	2110

Source: Processed Data 2025

Table 5. Robustness Test

	(1) ESG
CEOPI	-1.957***
	(-3.830)
FS	6.360***
	(23.017)
LEV	1.848
	(1.007)
_cons	-147.356***
	(-17.603)
r2	0.251
r2_a	0.250
N	2097

Source: Processed Data 2025