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ESG Impact on Financial Performance: Financial Constraints and CEO Characteristics as Moderators

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ABSTRACT	INFO ARTIKEL
<p>This research empirically investigates how CEO characteristics and financial constraints impact the connection between ESG and financial performance. Strong ESG disclosure can attract investors, enhance capital access, and boost profitability. However, high financial constraints may limit ESG-related investments, weakening financial performance. CEO characteristics influence managerial direction, with female leaders often perceived as more prudent in ESG management, potentially benefiting financial performance. Utilizing 138 observations from energy firms registered on the IDX from 2021 to 2023, this quantitative research applied moderated panel regression analysis via Eviews 12. The outcomes indicate that (1) ESG improves financial performance, (2) financial constraints negatively moderate this relationship, and (3) CEO characteristics do not affect the outcome of ESG on financial performance. The conclusions of this research highlight the significant impact of ESG disclosures on improving financial performance, which impacts the development of long-term benefits to the business that can attract investors.</p>	<p>Article History: <i>Submitted/Received 01 January 2025</i> <i>First Revised 05 January 2025</i> <i>Accepted 13 January 2025</i> <i>First Available online 26 April 2025</i> <i>Publication Date 26 April 2025</i></p> <p>Keyword: <i>CEO Characteristics; ESG; Financial Constraints; and Financial Performance</i></p>
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1. INTRODUCTION

Research Background

Financial performance and corporate governance are the two primary aspects that represent a company's qualities (Putri & Istiqomah, 2024). One of the things that stakeholders, like investors, use as a guide when making economic decisions is a business's financial performance. It indicates the company's capacity to provide profitable long-term results consistently and sustainably (El-Deeb et al., 2023). Companies must emphasize the necessity of financial performance as a business performance element since failure to attain the necessary level of financial performance could risk their survival and sustainability (Almaqtari et al., 2024).

Currently, several companies show a decrease in financial performance. One example occurred at PT Aneka Tambang Tbk (ANTM), which experienced a decrease in net income of 19.45% from Rp 3.82 trillion in 2022 to Rp 3.077 trillion in 2023 (Rhamadanty, 2024). The same thing was also experienced by PT Bukit Asam Tbk; a 31.98% decrease in profit was caused by a decrease in the contribution of coal sales, so that revenue also decreased (Kurnia, 2024). In this case, the business's financial performance has declined, indicating a decrease in the company's quality as well (Purwanti, 2021). As a result, fewer investors will purchase the company's stock (Dura, 2022). This instance is related to the downstream mining and energy sector actors who convert dirty energy into clean energy (Rhamadanty, 2024). In particular, by enhancing business performance through corporate ESG, this aligns with the government's objective of attaining corporate sustainability, which focuses the ESG aspects (Shakil, 2021).

The growing trend of ESG is now attracting the attention of more investors, as it is considered an indicator of investment sustainability and better corporate management practices. The global world increasingly recognizes the importance of ESG regulatory policies and guidelines (Xu & Zhu, 2024). In Indonesia, the Financial Services Authority requires companies to make sustainability reports based on Law No. 40 of 2007, which is guided by the Global Reporting Initiative international standards as part of corporate social responsibility (Dura, 2022). According to stakeholder theory, the presence of sustainability reports that reveal ESG can boost external stakeholders' trust and provide businesses with new avenues for obtaining funding and resources (Sari & Widiatmoko, 2023).

ESG reporting reveals the company's non-financial data that reflects the company's contribution to the environment, society, and other aspects. Companies that disclose ESG will gain public legitimacy from the company's contribution to the surrounding environment (Wijaya & Dwijayanti, 2023). Through ESG disclosure, companies are expected to build a favorable reputation among stakeholder, which is a crucial metric for evaluating their performance capabilities (Rahmansyah & Mutmainah, 2024). In addition, ESG also serves as a form of transparency assurance that provides confidence to stakeholders regarding the business's commitment to long-term sustainability. The trust and positive reputation gained from the implementation of ESG can have an impact on increasing stable income from the turnover of stakeholders' investment capital and will improve the business's financial performance. Accordingly, organizations can enhance excellent sustainable governance, preserve financial stability, and benefit the environment by using ESG best practices (Safriani & Utomo, 2020).

Studies conducted by Velte (2020), Lee & Isa (2023), Hira et al. (2023), Rizqi (2023), Sari & Widiatmoko (2023), Fu & Li (2023), Xu & Zhu (2024), Ho et al. (2024) and Chininga et al. (2024) have consistently provided empirical evidence that the presence of ESG disclosures can improve financial performance. Inawati & Rahmawati (2023), who clarify that sustainable development projects typically have a higher appeal to possible investors, validate this finding. The firm will expand and have more substantial financial resources when the company spends resources for ESG performance, which will enhance the financial performance of the company. There are different perspectives regarding how ESG affects financial performance, according to studies by Pratiwi & Hersugondo (2023), Wijaya & Dwijayanti (2023), and Yulista & Herawaty (2024). This is because financial performance cannot be reflected through the application of ESG as ESG disclosure is still not fully applied in Indonesia and has not been able to impact decision-making (Yulista & Herawaty, 2024). This discrepancy in findings implies that more research is necessary to fully comprehend the intricate interaction between the two factors and ESG's impact on financial performance.

Efforts to enhance financial performance through ESG face significant challenges, particularly financial constraints (Pratiwi & Hersugondo, 2023). Limited funding increases the risk of financial crises and hinders access to external capital, making ESG integration more difficult. This leads to reduced stakeholder interest and declining financial performance (Xu & Zhu, 2024). In contrast, effective ESG implementation can attract stakeholder support, boost working capital, and improve profitability (Pratiwi & Hersugondo, 2023). Therefore, higher financial constraints reduce the likelihood of successful ESG adoption and negatively impact financial outcomes. These findings are supported by previous studies Pratiwi & Hersugondo (2023), Ho et al. (2024), and Xu & Zhu (2024), which show that financial constraints negatively moderate the ESG on financial performance relationship.

In addition to financial constraints, Chief Executive Officer (CEO) characteristics affect a company's ESG disclosure. As the primary decision maker, the CEO is responsible for the company's operational strategy, accountability and implementation of sustainability policies that impact the company's financial performance (Triyani & Setyahuni, 2020). As stated by Almulhim & Aljughaiman (2023), CEO characteristics contribute to increasing company profitability, indicating that the CEO influences the effectiveness of resource management and strategic decision-making. The implication of the CEO's role raises speculation about how CEO characteristics can influence the company's ESG disclosure practices and impact financial performance. CEO characteristics measured by CEO gender are believed to provide different perspectives in operational management decisions. According to research by Ali et al. (2023), female CEOs typically play a more crucial role in decision-making, show a more substantial policy commitment to responsible corporate governance and involve stakeholders. Through this engagement, the company can attract more attention from stakeholders, which positively impacts the company's financial performance. Female CEOs also encourage companies to be more transparent in disclosing ESG so that they contribute to improving the business's financial performance (Sukmawan & Khomsiyah, 2024). This aligns with the finding of Ghardallou (2022), showing that CEO characteristics moderate positively in the interactions between corporate sustainability and financial performance. CEOs who have a deep understanding of sustainability practices can lead companies toward achieving better financial performance. In contrast, because the average CEO in Indonesia is a man, research by Yulista & Herawaty (2024) and Rahmawati & Juliarto (2024) shows that CEO characteristics

reduce ESG's impact on financial performance. So, with the difference in the earlier study's findings, scientists conducted research by making CEO characteristics a moderating variable.

This study's development was informed by earlier research, specifically that of Xu & Zhu (2024). However, with a different focus from previous research, which added the variable CEO characteristics as a moderating variable, and differences in research objects and periods. The object of prior research was conducted in China on non-SOE Enterprises. In contrast, this study was conducted in Indonesia, another developing country, focusing on companies in the energy sector. Energy sector companies have a primary business engaged in exploiting natural resources, so they are considered high risk in terms of ESG aspects (Anshari & Prihandini, 2024). Therefore, using CEO characteristics (Z2) and financial constraints (Z1) as moderating variables, this research aims to investigate how ESG (X) influences financial performance (Y).

Literature Review and Hypotheses Formulation

Stakeholder Theory

The stakeholder theory, which contends that corporate responsibility includes all stakeholders, not just shareholders, was first proposed in 1984 by R. Edward Freeman (Wisanggeni & Rahmawati, 2024). These stakeholders are identifiable people and organizations, including workers, clients, suppliers, governments, and shareholders. This theory highlights how crucial it is for businesses to consider the interests of every party, not just their own. The purpose is to ensure the company's sustainability for stakeholders.

Companies can maintain relationships with stakeholders by disclosing ESG information in the company's sustainability report (Sari & Widiatmoko, 2023). The company's desire to fulfill stakeholders' expectations encourages the publication of sustainability reports to create better social trust. According to Yulista & Herawaty (2024), the more stakeholders trust a corporation, the better the resources it receives. According to the stakeholder theory, ESG improves the financial performance of the business since it demonstrates that sound corporate management is satisfying stakeholder expectations (Lee & Isa, 2023).

Legitimacy Theory

The interaction between the business and society is the main emphasis of legitimacy theory. According to this view, legitimation is a possible source for the company's existence, as mentioned by Dowling & Pfeffer (1975). According to legitimacy theory, organizations are always working to align their operations with the social values that are ingrained in society and with the standards of conduct that are established by the social order. Legitimation, according to Suchman (1995), is the presumption that the behavior of the business would follow the socially developed set of standards, values, and beliefs.

Social values, ethics, and community expectations all of which can be articulated in sustainability reports, specifically ESG reports are linked to social legitimacy. It is now morally required to consider sustainability reporting using the legitimacy approach (Ghardallou, 2022). ESG is a type of corporate responsibility that is shown through issues related to corporate governance, the environment, society, and economy. Furthermore, efforts to enhance a business's legitimacy in people's eyes also heavily rely on its financial performance.

Financial Performance

Mahrani & Soewarno (2018) define financial performance as the capacity of the business to oversee and manage its assets. It shows how well the business can accomplish its objectives and run its operations. A company's quality is demonstrated by its implementation of strong financial performance (Pramisti & Istiqomah, 2024). As a result, economic performance can serve as an indicator for businesses to evaluate their performance over a given time frame. ROA is used in this research to measure financial performance. The ability of the business to produce a profit is the basis for the ROA, a metric used to assess profitability. High profitability demonstrates operational efficiency and builds investor confidence, especially in stable business conditions (Sari & Widiatmoko, 2023).

Environmental, Social, Governance (ESG)

The ESG concept was designed to be incorporated into a business's long-term value enhancement plan. This framework includes identifying, assessing, and managing various risks and opportunities related to corporate sustainability. By implementing ESG, companies can ensure that their activities are focused on profitability and consider their ESG impacts. In the 2006 Principles of Responsible Investment by the United Nations, the ESG concept was first presented. ESG then developed into a standard used in capital markets to measure and evaluate the non-financial performance of companies (Atan et al., 2018).

ESG as a tool to measure and disclose environmental, social, and governance practices, often using the globally recognized GRI Standards. Developed by the Global Reporting Initiative, these guidelines offer a structure for open reporting on sustainability (Ghazali & Zulmaita, 2020). In Indonesia, the GRI Standard is widely adopted for ESG evaluation. The goal of ESG is to provide long-term value for stakeholders by focusing on ESG factors.

Financial Constraints

Financial constraints are crucial to the capacity of a business to maintain operational sustainability and are a significant indicator of bankruptcy risk. Lower financial constraints reduce the likelihood of financial distress (Pratiwi & Hersugondo, 2023), while higher constraints increase financial risk, potentially lowering firm value and harming financial performance. Companies find raising funds from outside sources, such as investors, more challenging as their financial constraints increase. This is because when companies experience financial constraints, funding becomes limited, thereby increasing the risk of a financial crisis that impacts the sustainability of company operations (Xu & Zhu, 2024). Financial constraints are also inseparable from the role of company management in managing financial resources. For example, companies implementing ESG well can increase working capital through financial support from stakeholders, which ultimately contributes to increased profits and improved financial performance (Pratiwi & Hersugondo, 2023).

CEO Characteristic

The CEO is the highest position in the company or the top executive responsible for corporate strategy (Liandy et al., 2024). It has a key role in shaping company policies and strategies to increase a company's success. CEO characteristics are one of the foundations that support policy. Age, gender, skill, and overconfidence are some of the CEO characteristics

that significantly influence strategic decisions. CEO characteristics such as age, gender, skill, and overconfidence serve as key factors influencing strategic decisions (Chu et al., 2023).

The existence of gender differences that occur in the environment can be a new perception in decision-making, control corporate governance to run effectively and become a competitive advantage for creativity and innovation. According to Liandy et al. (2024) female CEOs represent possible advantages in decision-making and distinct leadership styles. Female CEOs are also considered more careful in making decisions that can encourage external investment, which will improve the financial performance (Radinda & Hasnawati, 2023).

ESG and Financial Performance

ESG disclosure is a form of corporate communication with stakeholders through environmental, social, and Good Corporate Governance (GCG) aspects. Financial and environmental factors are closely linked to financial performance, where effective environmental cost management can increase investor confidence, which in turn contributes to increasing the amount of company investment and experiencing a rise in profitability, positively impacting financial performance (Safriani & Utomo, 2020). In addition, rational spending on social aspects or social responsibility (CSR) can also help companies improve their financial performance through a good brand image in society (Xu & Zhu, 2024). Regarding GCG, legitimacy theory explains that corporate activities must follow prevailing societal norms. It will strengthen reputation and increase business stability, improving financial performance (Pratiwi & Hersugondo, 2023).

Stakeholder theory states that businesses that successfully manage stakeholder interactions, particularly through active ESG engagement, are more likely to achieve strong financial performance (Sandberg et al., 2023). Transparent ESG disclosures help build trust, reduce information asymmetry, and boost investor confidence, encouraging long-term investment and improving profitability (Fu & Li, 2023). Studies by Pratiwi & Hersugondo (2023), Xu & Zhu (2024), and Shakil (2021) confirm that ESG has a favorable influence on financial performance. Businesses with effective ESG policies typically attract more investors and disclose more sustainability information. Inawati & Rahmawati (2023) further highlights that sustainable development initiatives enhance investor appeal. Allocating resources to ESG efforts can enhance business growth and financial strength, leading to improved financial performance. From this explanation, H1 that will be verified in this study is:

H1: ESG has a positive impact on Financial Performance

ESG, Financial Performance and Financial Constraints

Financial constraints are a key indicator of potential corporate insolvency. Organizations that are able to enhance their operations through external financial support can boost profitability for instance, through increased product sales. As a result, the Return on Assets (ROA) rises due to improved profit margins (Pratiwi & Hersugondo, 2023). Xu & Zhu (2024) also noted that heightened financial constraints elevate the risks faced by a company, potentially diminishing its overall value and adversely affecting its economic performance. At the same time, it will be increasingly complex for companies to collect funds from external sources and investors as financing costs increase and the company's cash flow decreases.

According to Xu & Zhu (2024), Businesses with decreased ESG ratings have more significant financial constraints, information asymmetry, and higher financing costs. When companies experience financial constraints, it becomes more difficult for them to obtain funds from external parties. As a result, the business's financial income decreases and hinders the implementation of ESG in the company's operations, thus causing a decrease in the financial performance. This implies that the greater the financial constraints a company faces, the fewer resources are available to allocate toward ESG initiatives, ultimately leading to a decline in financial performance. This result coincides with agreement with studies by (Xu & Zhu, 2024) and (Ho et al., 2024), which would imply that ESG's beneficial effects on financial performance diminish when a company is under substantial financial pressure. Building on this reasoning, H2 in this research is as follows:

H2: Financial Constraints can negatively moderate the influence of ESG on Financial Performance.

ESG, Financial Performance, and CEO Characteristic

CEO characteristics represent the quality of leadership, competence, and ability of the CEO to manage the business. The CEO is crucial in influencing corporate strategy, especially in directing the extent and clarity of environmental transparency via ESG initiatives (Liandy et al., 2024). CEO attributes serve as an indicator of the strength of corporate governance. According to stakeholder theory, the CEO is anticipated to assist management in fostering a positive corporate reputation. Beyond enhancing financial outcomes, the CEO is also expected to demonstrate a commitment to environmental sustainability (Triyani & Setyahuni, 2020). The existence of good governance disclosure can reduce information asymmetry and increase public trust, as well as demonstrate corporate responsibility and corporate transparency towards stakeholders. Strategy in the company depends on the characteristics of the CEO. CEO characteristics are proxied in four proxies, namely age, gender, ability, and confidence (Chu et al., 2023).

This research employs CEO gender as a proxy, acknowledging that both male and female executives bear equal responsibility in decision-making and executing strategies that ultimately influence the financial performance (Liandy et al., 2024). CEO characteristics measured based on gender are believed to provide different perspectives in making company operational management decisions. Typically, female CEOs are more critical in the decision-making process, show stronger policy commitment to responsible corporate governance, and involve stakeholders. Such engagement enables the company to garner greater stakeholder interest, which subsequently enhances its financial performance (Ali et al., 2023). Additionally, female leadership tends to promote increased transparency in ESG disclosures, thereby contributing positively to the company's overall financial outcomes (Sukmawan & Khomsiyah, 2024).

This finding aligns with research conducted by Ghardallou (2022), showing that CEO characteristics moderate positively in the connection between business sustainability and financial performance. This means that female CEOs are considered more capable of supporting the consistency of sustainability practices such as ESG and tend to have a deep understanding of sustainability practices to lead the company toward better financial performance. Chu et al. (2023), who assert that female CEOs can positively adjust the connections between financial performance and CSR performance, also support this

argument. Regarding CSR, female CEOs perform better than their male counterparts. The authors develop the following hypothesis in light of this explanation:

H3: CEO characteristics can positively moderate the influence of ESG on Financial Performance.

The research conceptual framework that follows looks at how ESG affects financial performance, using CEO characteristics and financial constraints as moderating variables.

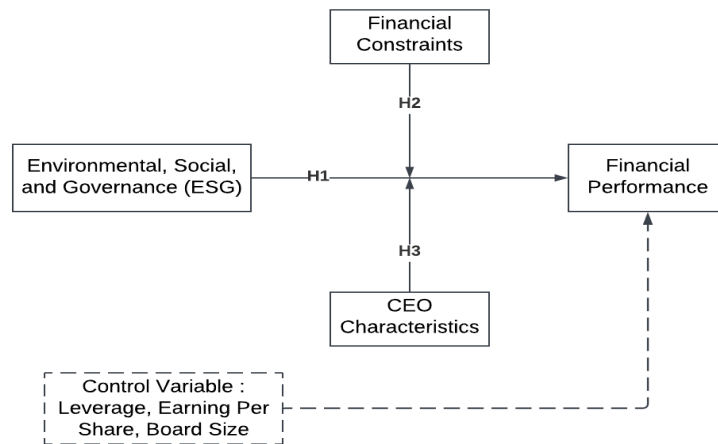
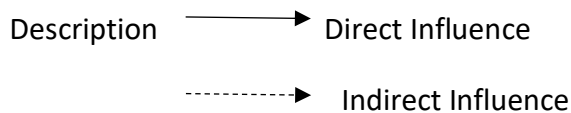


Figure 1. Conceptual framework



2. METHODOLOGY

Population and Sample

This study focuses on 87 energy sector companies listed on the IDX between 2021 and 2023. The sample belongs to a population that has been categorized according to particular standards that may be representative of the population. Businesses in the energy industry contributed to the study's sample, which was selected through purposeful sampling. Table 1 is a list of the precise sampling criteria employed in this study:

Table 1. Company Sample Criteria

Criteria	Number
Energy-related companies on the IDX from 2021 to 2023.	87
Energy-related companies IDX that don't release financial and sustainability reports.	(19)
Energy-related companies on the IDX experienced losses during the 2021–2023 study year.	(22)
Total number of companies that fit the specifications.	46
Number of years studied	3
Total data	138

Source: Indonesia Stock Exchange (IDX) and company reports

According to Table 1, a sample of 46 companies was selected throughout a three-year observation period, yielding 138 data points.

Instrumentation and Measurement

ESG (X), financial performance (Y), financial limitations (Z1), CEO characteristics (Z2), leverage (K1), earnings per share (EPS) (K2), and board size (K3) are operationally defined as follows:

Table 2. Operational Variable

Variable	Definition and Measurement of Variable	Citations
<i>Environmental, Social, Governance (ESG)</i> (Standard GRI 2021) (X1)	GRI standards are used as proxies for ESG variables and were created by the Global Reporting Initiative. The initiative uses global regularity to offer a platform for public reporting on social, environmental, and economic issues. $ESG = \frac{\sum \text{Company's Disclosure Item}}{\sum \text{GRI's Disclosure Standard Item}}$	(Ghazali & Zulmaita, 2020)

<i>Financial Performance</i> (ROA) (Y1)	<p>Financial Performance is proxied using profitability measurement, namely ROA.</p> $ROA = \frac{Net\ Income}{Total\ Asset}$	(Hira et al., 2023)
<i>Financial Constraints</i> (Indeks SA) (Z1)	<p>Financial Constraints refer to the proxy for the SA index or Size-Age Index developed with external variables such as company age and size.</p> $SA = -0,737 \times Size + 0,043 \times Size^2 - 0,040 \times Age$	(Xu & Zhu, 2024)
CEO Characteristics (Z2)	<p>In this study uses the CEO gender proxy in companies.</p> <p>1 = CEO is female</p> <p>0 = CEO is male</p>	(Liandy et al., 2024), (Chu et al., 2023)
<i>Leverage</i> (K1)	<p>Explains the company's capacity to raise money from outside sources or through debt.</p> $Leverage = \frac{Total\ Liabilities}{Total\ Assets}$	(Fitriani, 2024)
<i>Earnings per Share (EPS)</i> (K2)	<p>EPS in companies is used to measure profit margin on sales compared to net profit after tax.</p> $EPS = \frac{Net\ Profit\ After\ Tax}{Total\ Equity}$	(Fitriani, 2024).

Board Size (K3)	<p>The board size indicates the total number of directors that make up the company's board.</p> <p>$Board\ Size = Ln (\sum Anggota\ Dewan\ Direksi)$</p>	(Salam, 2021)
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Research Model

Moderated regression data analysis was used in this quantitative research study. The following is a formulation of the Moderated Regression Analysis (MRA) model equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 Z_1 + \beta_3 Z_2 + \beta_4 X_1.Z_1 + \beta_5 X_1.Z_2 + K_1 + K_2 + K_3 + e$$

Description:

Y = Financial Performance

X1 = ESG

Z1 = Financial Constraints

Z2 = CEO Characteristics

K1 = Leverage

K2 = Earnings per Share (EPS)

K3 = Board Size

α = Constant

β = Coefficient

e = Error

3. RESULT AND DISCUSSION

Descriptive Statistics

The characteristic statistics are compiled in Table 3 below:

Table 3. Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev	N
ESG	0.4254	0.3718	1.0000	0.0427	0.2757	138
Financial Performance	0.1429	0.0965	0.6180	0.0010	0.1423	138
Financial Constraint	14.4910	14.4800	21.0700	0.0427	0.2757	138
CEO Characteristic	0.0290	0.0000	1.0000	0.0000	0.1684	138
Leverage	0.4317	0.4300	0.9200	0.0000	0.2128	138
EPS	0.2554	0.1700	1.2500	0.0000	0.2487	138
Board Size	1.4041	1.3900	2.7100	0.6900	0.4132	138

Source: Result of Eviews 12 Data Processing

Considering Table 3, the dataset consists of 138 observations. Financial performance (Y), having a mean value of 0.1429 and a std. Dev of 0.1423. ESG, the independent variable, has a minimum value of 0.0427 to a maximum of 1.000, with a mean of 0.4254 and a std. Dev of 0.2757. The moderating variable, financial constraints (Z1), has a mean of 14.4910, with values ranging between 0.0427 and 21.0700. The CEO characteristic variable (Z2) has a mean of 0.0290 and a minimum value of 0.0000 to a maximum of 1.0000. Also, leverage, EPS, and board size are control variables.

Model Analysis

The findings from the model analysis are outlined below:

Table 4. Results of the Model Analysis

Test of type	Statistic	d.f	Prob.	The Right Model
Chow-test				
(Cross-section F)	1.979256	(45,86)	0.0033	FEM

Chow-test					
(Cross-section Square)	Chi-	98.092992	45	0.0000	FEM
Hausman-test					
(Cross-section Random)		7.282746	6	0.2955	REM
LM-test					
(Breusch-Pagan)				0.0175	REM

Source: Result of Eviews 12 Data Processing

According to the Chow test, this study compares the CEM and FEM. The test results, as shown in Table 4, indicate a likelihood value of 0.0000, which is below the 0.05 threshold, suggesting the FEM is the preferred choice. Additionally, the Hausman test was conducted to evaluate the suitability of the FEM and the REM. With a probability value of 0.2955, exceeding the 0.05 benchmark, the Hausman test supports the selection of the Random Effect Model (REM). Given the conflicting outcomes of the previous model comparisons, the most appropriate model between CEM and REM was found using the Lagrange Multiplier test. The LM test yielded a prob. value of 0.0175, below 0.05, reinforcing the choice of the REM. Consequently, the REM is deemed the most suitable for this research's panel data regression analysis.

F-Test

The effectiveness of the estimated regression model is assessed using an F-test. The findings from the F-test are shown below:

Table 5. F Test Result	
F-statistic	113.0861
Prob (F-Statistic)	0.000000

Source: Result of Eviews 12 Data Processing

According to the F-test results in Table 5, the F-statistic is 113.0861 with a Prob (F-Statistic) of 0.00000, which is below the 0.05 cutoff. This suggests that Variable Y (Financial Performance) is significantly impacted by Variable X (ESG).

Hypothesis Result

The two techniques used in hypothesis testing are MRA and the t-test. While MRA examines the interaction effect by incorporating a moderating variable, the t-test determines whether a variable X has a crucial impact on the variable Y. These tests provide the following insights:

Table 6. Hypothesis Result

Hypothesis	Coefficient	t-statistic	Std. Error	Significance	Decision
H1: ESG → FP	0.137318	2.225819	0.061693	0.0278	ACCEPTED
H2: ESG → FP moderated by FC	-0.009091	2.274876	0.003996	0.0246	ACCEPTED
H3: ESG → FP moderated by CEOC	-0.048072	0.208275	0.230810	0.8353	REJECTED

Source: Result of Eviews 12 Data Processing

Referring to the t-test data in Table 6, the significance of the variable X is 0.0278. Given that the importance level for this research is 5% (0.05) and the probability value is below this threshold, ESG has an important statistical consequence on financial performance. Furthermore, the regression coefficient 0.137318 indicates a positive correlation, suggesting that greater ESG disclosure is connected to increased financial performance. Consequently, the results support the initial hypothesis (H1).

Table 6 illustrates the panel regression and MRA findings, showing a t-statistic of 2.274876 and a p-value of 0.0246 under the 0.05 threshold, suggesting that financial constraints significantly moderate the link between ESG and financial performance. The negative regression coefficient of -0.009091 indicates that stronger financial constraints lessen the favorable impact of ESG on financial performance. Consequently, H2 is validated, validating that financial constraints weaken ESG's influence on financial performance.

The t-statistic of 0.208275 and p-value of 0.8353 for the moderating variable of CEO characteristics surpass the 0.05 significance level. CEO characteristics do not significantly moderate the interactions among ESG and financial performance, so it fails to support the third hypothesis (H3).

Coefficient of Determination (Adjusted R²)

This analysis assessed the model's capacity to explain the variable Y. The outcomes of this assessment are outlined below:

Table 7. Coefficient of Determination (Adjusted R²)

R-Square	0.875204
Adjusted R-Squared	0.867465

Source: Result of Eviews 12 Data Processing

The Adjusted R-squared value is 0.867465, or 86.7%, according to table 7 above. Therefore, it can be determined that variable X (ESG) affects variable Y (financial performance) concurrently or simultaneously to the extent of 86.7%, with other factors not analyzed accounting for the remaining 13.3%.

Discussion

ESG's Impact on Financial Performance

ESG positively impacts financial performance according to the first regression analysis. This indicates a meaningful statistical link connecting ESG and financial performance. The business's financial performance significantly correlates with ESG as measured by the GRI 2021 standard. The fact that 52.87% of the research sample's energy sector companies have consistently released sustainability reports for three years, affecting their financial performance, is one of the causes supporting this finding.

The study's conclusions are consistent with stakeholder theory, which highlights how crucial it is to match the interests of the company's stakeholders. Companies that publish ESG reports represent good corporate management and a commitment to sustainability, positively impacting financial performance. In addition to demonstrating the business's compliance with environmental, social, and governance principles, the openness of ESG disclosures builds strong bonds with all parties involved, including investors, clients, staff, and the general public. Furthermore, ESG reporting is an aspect of corporate responsibility that is revealed through environmental, social, economic, and corporate governance issues, according to legitimacy theory. With such transparency, companies can gain the legitimacy of society and investors. ESG disclosure contributes to building a strong brand image. So, companies with a good brand image will be more attractive to stakeholders when making investments, ultimately increasing financial stability.

This conclusion consistently confirms the findings of studies by Inawati & Rahmawati (2023), Khairunnisa et al. (2023), and Rahmansyah & Mutmainah (2024) that ESG improves financial performance. In addition to enhancing the business's reputation, adopting ESG disclosure improves its ability to attract investors and improve its financial performance

(Inawati & Rahmawati, 2023). Therefore, a company's growth potential and financial performance sustainability increase with the quality of its ESG implementation.

Financial Constraints Can Negatively Moderate the impact of ESG on Financial Performance.

The findings affirm the second hypothesis, indicating that financial constraints moderate the correlation among ESG and financial performance. In addition, by stakeholder theory, scarce financial resources may hinder a business's ability to implement ESG activities, reducing stakeholder confidence and diminishing financial outcomes. Inadequate funding restricts the company from fulfilling its ESG. This may impact long-term economic stability and investor confidence.

The study's findings are also consistent with the results reported by Pratiwi & Hersugondo (2023), Xu & Zhu (2024), and Ho et al. (2024), others have shown that financial constraints may mitigate the negative impacts of ESG on financial performance. This research shows that financial performance and ESG value decrease in Indonesia's energy sector when financial constraints increase. For example, PT Energi Mega Persada Tbk has a high average financial constraint for three years (2021-2023), 52.29, with a low ESG value of 0.1453. As a result, the financial performance value is also low, which is 0.047. In contrast, PT ABM Investama Tbk has a lower average value of financial constraints than PT Energi Mega Persada Tbk over the same period, which is 3.67. This company also has a higher ESG value of 2.6155, so its financial performance value is also high at 0.164. Thus, comparing the Two businesses attests to the fact that organizations with significant financial constraints typically face funding challenges when implementing ESG practices, which will reduce the value of financial performance. Therefore, an effective financial management strategy is crucial in implementing ESG investment practices that can add value to the company; when facing financial constraints, companies tend to experience funding difficulties to carry out ESG practices, which will reduce the value of financial performance. Therefore, an effective financial management strategy is crucial in implementing ESG investment practices that can add value to the company. This result supports H2 is supported.

CEO characteristics can positively moderate the influence of ESG on Financial Performance.

The third hypothesis (H3) does not support the MRA test results. This suggests that the CEO characteristics variable, when using gender as a proxy, does not moderate ESG's effects on financial performance. In other words, male and female CEOs have no discernible impact the connection between ESG implementation and financial performance. This finding contradicts stakeholder theory, which holds that the CEO should assist managers in presenting a positive image of the business. The CEO should also be concerned about the environment and enhance financial performance (Triyani & Setyahuni, 2020).

In this context, the research hypothesis is not supported because corporate decisions to implement ESG in energy sector companies in Indonesia tend to be more influenced by broader business strategies and stakeholder demands than individual CEO characteristics. In addition, it is also due to the low proportion of female CEOs in energy sector companies in the research sample, which is only 2.17% of the total research sample. This statistic reveals that the total presence of female CEOs is comparatively small in Indonesia compared to male CEOs. The findings of the third hypothesis are consistent with the studies by Rahmawati & Juliarto (2024) and Yulista & Herawaty (2024), which reveal that CEO attributes do not amplify

the effect of ESG adoption on financial outcomes. These studies suggest that societal gender norms and the predominance of men in executive roles contribute to the limited representation of women in top leadership positions within Indonesia. Moreover, the scarcity of female CEOs may stem from organizational apprehension that heightened transparency, often associated with female leadership, could lead to excessive disclosure to stakeholders. This inclination toward openness, perceived as a feminine trait, is thought to reduce corporate profitability and potentially weaken financial performance.

Implications and Future Research

This study provides various significant implications. First, ESG's beneficial effects on financial performance highlight the importance of businesses incorporating sustainable principles into their main business plans. Companies pursuing ESG initiatives will likely improve their standing, draw in additional investors, and achieve better financial outcomes. This suggests that sustainability efforts are ethically, socially responsible, and financially beneficial.

Second, the role of financial constraints as a negative moderator among ESG and financial performance implies that companies facing financial limitations may struggle to comprehend the full financial benefits of ESG initiatives. Firms with tighter financial resources might find investing adequately in sustainability practices challenging, weakening the ESG's beneficial effects on financial outcomes. Therefore, companies must manage financial constraints effectively to maximize the advantages gained from ESG activities.

Lastly, the finding that CEO characteristics (such as age, gender, ability, and overconfidence) do not considerably mitigate the correlation between financial performance and ESG suggests that individual CEO traits alone are insufficient to improve or diminish the outcome of ESG initiatives on financial performance. This implies that organizational commitment to ESG practices should be embedded at the structural and cultural levels rather than relying solely on CEOs' leadership style or personal attributes.

Overall, these findings underline the strategic importance of ESG investments, highlight the need to address financial barriers to sustainability, and suggest that building a strong ESG culture within organizations is critical, regardless of individual leadership traits. Future research can extend these findings by using diverse sample sizes and exploring different sectors. In addition, alternative measurement methods for ESG and other variables should be investigated. Future research may also add external variables, such as CEO power variables, as moderating variables and use CEO characteristics variables with different proxies.

4. CONCLUSION

The data analysis for this study indicates that ESG positively affects financial performance. This aligns with legitimacy and stakeholder perspectives, which believe that publishing ESG reports will enhance a company's reputation with stakeholders and contribute to its increased financial success. The variable of financial constraints may moderate ESG's detrimental influence on financial performance. Implementing ESG principles as a strategy for impression management may be hampered by high financial constraints, which will affect the organization's financial performance. The CEO characteristics variable, however, has no moderation on the outcome of ESG on financial performance. CEO characteristics with the

proxy of CEO gender are less supportive in this study due to the low proportion of female CEOs in the research sample.

This research provides theoretical contributions to financial performance, ESG, CEO characteristics, and financial constraints. However, this study has several limitations, including the relatively short observation period from 2021 to 2023, the object of study, which is only in the energy sector in Indonesia, and limitations in measuring ESG variables using the GRI 2021 standard and measuring financial constraints variables. Future research is expected to extend these findings by using a diverse sample size and exploring different sectors. In addition, alternative measurement methods for ESG variables and other variables should be investigated. Future research can also add external variables, such as the CEO power variable, as a moderating variable and use CEO characteristic variables with different proxies.

5. REFERENCES

- Ali, M., Razak, L. A., Besar, M. H. A., & Abidin, S. (2023). Board Gender Diversity And Esg Disclosure: Does Board Meeting Attendance Matters? *Proceedings of the International Conference in Technology, Humanities and Management (ICTHM 2023)*, 12-13 June, 2023, Istanbul, Turkey, 131, 1230–1250. <https://doi.org/10.15405/epsbs.2023.11.98>
- Almaqtari, F. A., Elmashtawy, A., Farhan, N. H. S., Almasria, N. A., & Alhajri, A. (2024). The moderating effect of board gender diversity in the environmental sustainability and financial performance nexus. *Discover Sustainability*, 5(1). <https://doi.org/10.1007/s43621-024-00517-7>
- Almulhim, A. A., & Aljughaiman, A. A. (2023). Corporate Sustainability and Financial Performance: The Moderating Effect of CEO Characteristics. *Sustainability (Switzerland)*, 15(16). <https://doi.org/10.3390/su151612664>
- Atan, R., Alam, M. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal*, 29(2), 182–194. <https://doi.org/10.1108/MEQ-03-2017-0033>
- Chininga, E., Alhassan, A. L., & Zeka, B. (2024). ESG ratings and corporate financial performance in South Africa. *Journal of Accounting in Emerging Economies*, 14(3), 692–713. <https://doi.org/10.1108/JAEE-03-2023-0072>
- Chu, H.-L., Liu, N.-Y., & Chiu, S.-C. (2023). CEO power and CSR: the moderating role of CEO characteristics. *China Accounting and Finance Review*, 25(1), 101–121. <https://doi.org/10.1108/cafr-03-2022-0027>
- El-Deeb, M. S., Ismail, T. H., & Banna, A. A. El. (2023). Does audit quality moderate the impact of environmental, social and governance disclosure on firm value? Further evidence from Egypt. *Journal of Humanities and Applied Social Sciences*, 5(4), 293–322. <https://doi.org/10.1108/jhass-11-2022-0155>
- Fu, T., & Li, J. (2023). An empirical analysis of the impact of ESG on financial performance: the moderating role of digital transformation. *Frontiers in Environmental Science*, 11(August), 1–11. <https://doi.org/10.3389/fenvs.2023.1256052>

- Ghardallou, W. (2022). Corporate Sustainability and Firm Performance: The Moderating Role of CEO Education and Tenure. *Sustainability (Switzerland)*, 14(6). <https://doi.org/10.3390/su14063513>
- Hira, N. U., Ahmad, W., Amanat, A., Khattak, S. H., Khan, M. T., Khan, S., Abdullah, F., Shoaib, S., & Ahmad, A. (2023). The Impact Of Environmental, Social And Governance Factors (ESG) On Firms' Financial Performance: Evidence From Pakistan. *Journal of Positive School Psychology*, 7(2), 89–111. <https://journalppw.com/index.php/jpsp/article/view/15178%0Ahttps://journalppw.com/index.php/jpsp/article/download/15178/9805>
- Ho, L., Nguyen, V. H., & Dang, T. L. (2024). ESG and firm performance: do stakeholder engagement, financial constraints and religiosity matter? *Journal of Asian Business and Economic Studies*, 31(4), 263–276. <https://doi.org/10.1108/JABES-08-2023-0306>
- Inawati, W. A., & Rahmawati, R. (2023). Dampak Environmental, Social, Dan Governance (ESG) Terhadap Kinerja Keuangan. *Jurnal Akademi Akuntansi*, 6(2), 225–241. <https://doi.org/10.22219/jaa.v6i2.26674>
- Khairunnisa, D. P., & Widiastuty, E. (2023). Pengaruh Kinerja Esg Terhadap Kinerja Keuangan Perusahaan. *Jurnal Riset Akuntansi Aksioma*, 22(2), 16–27. <https://doi.org/10.29303/aksioma.v22i2.218>
- Lee, S. P., & Isa, M. (2023). Environmental, social and governance (ESG) practices and financial performance of Shariah-compliant companies in Malaysia. *Journal of Islamic Accounting and Business Research*, 14(2), 295–314. <https://doi.org/10.1108/JIABR-06-2020-0183>
- Liandy, V. A., Mahfirah, T. F., & Lajuni, N. (2024). Do CEO characteristics moderate the link between CEO power and firm performance ? *Global Advances in Business Studies (GABS)*, 3(1), 26–37. <https://doi.org/10.55584/Gabs.003.01.3>
- Mahrani, M., & Soewarno, N. (2018). The effect of good corporate governance mechanism and corporate social responsibility on financial performance with earnings management as mediating variable. *Asian Journal of Accounting Research*, 3(1), 41–60. <https://doi.org/10.1108/AJAR-06-2018-0008>
- Pramisti, A. A., & Istiqomah, D. F. (2024). the Influence of Environmental Social Governance (Esg) on Company Value With Financial Performance As a Mediation Variable. *Jurnal Aplikasi Akuntansi*, 9(1), 34–45. <https://doi.org/10.29303/jaa.v9i1.423>
- Pratiwi, L. R. B., & Hersugondo. (2023). Pengaruh Kinerja Environmental, Social, Governance (ESG) Terhadap Kinerja Perusahaan dengan Kendala Keuangan sebagai Variabel Moderasi (Studi pada Perusahaan Manufaktur yang terdaftar di Bursa Efek Indonesia tahun 2016-2020). *Diponegoro Journal of Management*, 12(1), 1. <http://ejournal-s1.undip.ac.id/index.php/dbr>
- Purwanti, D. (2021). Determinasi Kinerja Keuangan Perusahaan : Analisis Likuiditas, Leverage Dan Ukuran Perusahaan (Literature Review Manajemen Keuangan). *Jurnal Ilmu Manajemen Terapan*, 2(5), 692–698. <https://doi.org/10.31933/jimt.v2i5.593>

- Putri, N. A., & Istiqomah, D. F. (2024). The Influence of Company Characteristics on Audit Report Lag: Auditor Characteristics as a Moderating Variable. *Accounting and Finance Studies*, 4(3), 201–223. <https://doi.org/10.47153/afs43.10152024>
- Radinda, A. S., & Hasnawati. (2023). View of Pengaruh Kepemilikan Manajerial, Kepemilikan Institusional, Karakteristik CEO (Gender, Tingkat Pendidikan, Pengalaman) dan Ukuran Perusahaan terhadap Teratasnya Financial Distress. *Jurnal Ekonomi Trisakti*, 3(1), 693–704. <https://doi.org/https://dx.doi.org/10.25105/jet.v3il.15450>
- Rahmansyah, M. F., & Mutmainah, S. (2024). Pengaruh Kinerja Pengungkapan Esg Terhadap Kinerja Keuangan Dengan Kepatuhan Syariah Sebagai Variabel Moderasi. *Diponegoro Journal of Accounting*, 13(3), 1–15. <http://ejournal-s1.undip.ac.id/index.php/accounting>
- Rahmawati, I., & Juliarto, A. (2024). Pengaruh Keberlanjutan Perusahaan Terhadap Kinerja Perusahaan dengan Karakteristik CEO sebagai Variabel Moderasi (Studi Empiris pada Perusahaan Non Keuangan yang Terdaftar di Bursa Efek Indonesia Tahun 2018-2021). *Diponegoro Journal of Accounting*, 13(1), 1–15. <http://ejournal-s1.undip.ac.id/index.php/accounting>
- Rizqi, M. A. (2023). Effect ESG on Financial Performance. *Owner: Riset & Jurnal Akuntansi*, 7, 2537–2546. <https://doi.org/https://doi.org/10.33395/owner.v7i3.1600>
- Safriani, M. N., & Utomo, D. C. (2020). Pengaruh Environmental, Social dan Governance (ESG) Disclosure terhadap Kinerja Perusahaan. *Bandung Conference Series: Accountancy*, 4(1), 300–306. <https://doi.org/10.29313/bcsa.v4i1.11584>
- Salam, A. (2021). Pengaruh Good Corporate Governance, Leverage dan Firm Size terhadap Kinerja Keuangan pada Perusahaan Sektor Mining yang Tercatat di Bursa Efek Indonesia Tahun 2019-2022. *Jurnal Ilmu Manajemen*, 11(1), 48–56.
- Sandberg, H., Alnoor, A., & Tiberius, V. (2023). Environmental, social, and governance ratings and financial performance: Evidence from the European food industry. *Business Strategy and the Environment*, 32(4), 2471–2489. <https://doi.org/10.1002/bse.3259>
- Sari, P. S., & Widiatmoko, J. (2023). Pengaruh Environmental, Social, and Governance (ESG) Disclosure terhadap Kinerja Keuangan dengan Gender Diversity sebagai Variabel Moderasi. *Jurnal Ilmiah Akuntansi Dan Keuangan*, 5(9)(9), 3634–3642. <https://journal.ikopin.ac.id/index.php/fairvalue>
- Shakil, M. H. (2021a). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, 72(May 2020). <https://doi.org/10.1016/j.resourpol.2021.102144>
- Shakil, M. H. (2021b). Environmental, social and governance performance and financial risk: Moderating role of ESG controversies and board gender diversity. *Resources Policy*, 72(May), 102144. <https://doi.org/10.1016/j.resourpol.2021.102144>
- Suchman, M. C. (1995). Managing Legitimacy: Strategic and Institutional Approaches. *The Academy of Management Review*, 20(3), 571. <https://doi.org/10.2307/258788>

- Sukmawan, G., & Khomsiyah, K. (2024). Does Eco-Feminism Affect the Quality of ESG Disclosures and Banking Performance? *Golden Ratio of Finance Management*, 4(2), 190–199. <https://doi.org/10.52970/grfm.v4i2.496>
- Triyani, A., & Setyahuni, S. W. (2020). Pengaruh Karakteristik Ceo Terhadap Pengungkapan Informasi Environmental, Social, and Governance (Esg). *Jurnal Ekonomi Dan Bisnis*, 21(2), 72. <https://doi.org/10.30659/ekobis.21.2.72-83>
- Velte, P. (2020). Does CEO power moderate the link between ESG performance and financial performance?: A focus on the German two-tier system. *Management Research Review*, 43(5), 497–520. <https://doi.org/10.1108/MRR-04-2019-0182>
- Wijaya, D. H., & Dwijayanti, S. P. F. (2023). Pengaruh Esg Disclosure Terhadap Kinerja Keuangan Dimoderasi Dengan Gender Diversity. *Jurnal Ilmiah Mahasiswa Akuntansi*, 12(2), 124–133. <https://doi.org/10.33508/jima.v12i2.5353>
- Wisanggeni, N. U. B., & Rahmawati, I. Y. (2024). The Effect of ESG Risk Ratings, Board Size and Gender Diversity on Financial Performance: Econometric Case Study Indonesia 90 Companies 2020-2023. *South Asian Journal of Social Studies and Economics*, 21(7), 129–145. <https://doi.org/10.9734/sajsse/2024/v21i7850>
- Xu, Y., & Zhu, N. (2024). The Effect of Environmental, Social, and Governance (ESG) Performance on Corporate Financial Performance in China: Based on the Perspective of Innovation and Financial Constraints. *Sustainability (Switzerland)*, 16(8). <https://doi.org/10.3390/su16083329>
- Yulista, V., & Herawaty, V. (2024). Peran Karakteristik CEO dalam Memoderasi Pengaruh antara ESG dan Penghindaran Pajak Terhadap Kinerja Keuangan. *Jurnal Ilmiah Indonesai*, 9(10). <https://doi.org/http://dx.doi.org/10.36418/syntax-literate.v9i10.2548-1398>

