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Impact of ESG Disclosure on Financial Performance with CEO Gender as a Moderating Variable in Basic Material and Energy Companies Listed on the Indonesia Stock Exchange (2021-2024)

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ABSTRACT: This study examines the effect of Environmental, Social, and Governance (ESG) disclosure on the financial performance of companies in the basic materials and energy sectors listed on the Indonesia Stock Exchange during the period 2021-2024, considering CEO gender as a moderating variable. The primary objective of the study is to understand the impact of corporate transparency and commitment to sustainability (ESG) on financial outcomes, as well as to test whether CEO gender influences this relationship. The research methodology employs a quantitative approach using panel data analysis on a selected sample of companies. The results indicate that ESG disclosure has a positive and significant impact on company financial performance. However, statistical analysis did not find sufficient evidence to support the role of CEO gender as a moderating variable in the relationship between ESG and financial performance. Thus, CEO gender does not influence the strength or direction of ESG's impact on financial performance in the context of basic materials and energy companies in Indonesia. These findings underscore the importance of integrating sustainability aspects into business strategies without considering CEO gender differences as a moderating factor. The practical implications of this research are to encourage companies to improve ESG transparency in order to achieve more optimal and sustainable financial performance.

KEYWORDS: ESG, Financial Performance, CEO Gender

1. INTRODUCTION

The financial performance of companies around the world, including Indonesia, faces significant challenges influenced by various factors. These factors include the impact of the global economy, declining revenues, limitations in financial reporting, regulatory uncertainty, and increased competition. These three factors are interrelated and influence financial performance. Therefore, companies must develop adaptive and transparent strategies to overcome challenges and improve their financial performance (Hassan & Shafique, 2019).

Non-financial companies in Indonesia experienced significant declines in financial performance from 2021 to 2023, influenced by economic and market factors. What is interesting to the author is that companies in the energy and basic materials sectors experienced significant fluctuations, with many companies recording declines in revenue due to unstable commodity prices and rising operational costs. According to Haryanto (2022), commodity prices are the main factor influencing the financial performance of companies in this sector, where price fluctuations can directly impact profitability. To address these challenges, companies need to develop strategies that are responsive to changes in the business environment to improve their financial performance.

The current changes in the business environment require companies to disclose information about the environmental impact of their operations. Such disclosure is a form of corporate responsibility that serves as one of the internal drivers of the circular economy (Yunisvita *et al*., 2025) Companies are also responsible for reducing carbon emissions resulting from their activities. Some countries have already implemented carbon pricing policies (Meutia et al., 2024). Currently, the government is promoting renewable energy initiatives, encouraging the public to transition to clean energy through the development of renewable energy projects such as solar power plants (SPP) and geothermal power plants (GPP). This aligns with companies' efforts to enhance disclosure regarding the sustainability and social impact of their projects.

Furthermore, the implementation of carbon trading mechanisms as an alternative financing option for the energy transition demonstrates the energy sector's commitment to reducing CO2 emissions. This reflects recognition of corporate social responsibility in addressing climate change. Finally, corporate social responsibility (CSR) is increasingly being integrated into business strategies, such as CSR programmes focused on improving the well-being of local communities and supporting environmental sustainability. Recent research indicates that investments in sustainability can enhance long-term financial performance (Barakat et al., 2024; Nandini et al., 2022).

Environmental, Social, Governance (ESG) disclosure is increasingly becoming a major focus for companies in this sector as an effort to improve transparency, attract investment, and fulfil their social responsibility towards the environment and society (Prayitno et al., 2024). Investment and the implementation of good ESG practices are believed to have a positive influence on a company's financial performance. A meta-analysis study by Gholami et al. (2022) shows that companies with high ESG scores tend to have better financial results, as they are able to effectively manage environmental and social risks and enhance their reputation among stakeholders. Whelan et al. (2021) confirm that nearly all the articles reviewed show a positive correlation between ESG performance and financial performance, although the strength of this relationship varies across industries. Additionally, Li et al. (2024) found that the implementation of effective ESG systems, especially in industries with high environmental impact, can improve operational efficiency and company profitability. However, other findings by Hussain et al. (2024); Ma et al. (2024); Nian & Said (2025) state that ESG has a negative impact on financial performance.

In addition to the relationship between ESG and financial performance, there are factors that strengthen and weaken the relationship between the two variables. One such factor is the role of CEO gender. Female CEOs are often associated with a more ethical, empathetic, and pro-sustainability leadership style, and thus tend to provide greater support for ESG initiatives (Liu, 2025). Cambrea et al. (2025) found that CEO succession generally improves ESG performance, and this effect becomes stronger when the incoming CEO is female and has a long career horizon. Muhammad (2025) conducted research in the United States (2018–2023), which showed that companies led by female CEOs experience fewer ESG controversies, especially if supported by an adequate number of female directors. However, differing results were found by Dohrmann *et al*. (2024); Gutierrez-Romero *et al*. (2021); Wang *et al*. (2021), which showed that CEO gender does not always significantly moderate the relationship between environmental disclosure and financial performance.

Prior studies have indicated that ESG disclosure has varying impacts on financial performance. These varying results may be due to differences in the samples and periods analysed in each research study. This study examines the impact of ESG disclosure on financial performance, measured using Tobin's Q. Furthermore, CEO gender, measured using a dummy variable, acts as a moderator of the relationship between ESG and financial performance. ESG disclosure is a key focus for companies in the energy and basic materials sectors in their efforts to enhance stakeholder trust. Understanding the impact of ESG is crucial for management to determine sustainability policies and provide insights for investors in decision-making. This study employs a quantitative approach, using secondary data obtained from financial and sustainability reports published on the official websites of companies listed on the Indonesia Stock Exchange (IDX) in the energy and raw materials sectors. The sample was selected using a purposive sampling method, focusing on companies in the energy and raw materials sectors that met certain criteria. Data analysis was conducted using panel data regression to evaluate the direct impact of ESG on financial performance and Moderated Regression Analysis (MRA) to evaluate the moderating effect of CEO gender.

2. LITERATUR REVIEW

2.1 Stakeholders Theory

Stakeholders Theory explains that organisations are not only responsible to shareholders, but also to other parties such as investors, lenders, buyers, suppliers, governments, and the community (Freeman, 1984). The purpose of this theory is to encourage added value and minimise losses from business activities. The greater the influence of stakeholders, the more a company must adapt to their needs. Recent research shows that the application of ESG principles can improve a company's relationship with stakeholders and contribute to better financial performance (Igbinovia & Agbadua, 2023; Jeanice & Kim, 2023). ESG disclosure is considered a way to strengthen relationships with stakeholders. Thus, good relationships with all stakeholders are key to achieving success (Savio et al., 2023).

2.2 Gender Decision Making

Gender decision-making is a process of decision-making that takes into account the differences in experiences, needs, and perspectives between different genders. This process is crucial to ensure that all voices, including those of women and gender minority groups, are represented (Sanz de Acedo et al., 2021). When decisions are made without considering gender aspects, the needs of certain groups are often overlooked, which can lead to social injustice (Armg Publishing, 2022). Gender decision-making recognises that gender influences how individuals react and participate in the decision-making process. Previous research has shown that men and women have different approaches to dealing with challenges.

2.3 Financial Performance

According to Francis H (2020), financial performance is an assessment of tasks that have been completed and work results compared to existing guidelines. A company's financial success reflects its achievements over a certain period of time, indicating how healthy the organisation is (Sutrisno, 2009). Additionally, the Financial Performance analysis conducted by Hutabarat (2020) emphasises the importance of accurate measurement to understand a company's financial strengths and weaknesses, as well as to formulate better strategies for managing finances. One way to evaluate Financial Performance is by using Tobin's Q Ratio, which compares a company's market value with its asset value. The Q Ratio is considered a good indicator for assessing company performance, as it reflects investors' confidence in the company's value (Listiadi, 2023).

2.4 Enviromental, Social, and Governance (ESG)

ESG is an aspect that must be fulfilled in supporting economic, social and environmental performance to achieve business sustainability goals (Shakil, 2021). Environmental, Social, and Governance (ESG) is also defined as environmental and social responsibility based on business ethics and effective governance (Sang Kim and Li, 2021). Elkington (2013) explains the concept of sustainable business using three criteria to determine a company's success, namely People (individuals/social), Planet (environment), and profit (economy), known as the Triple Bottom Line (3P).

2.5 CEO Gender

CEO gender in the context of company performance is because the characteristics of CEOs, including gender, can influence strategic decisions and company performance results. Research shows that female CEOs tend to have a different approach compared to male CEOs, which can influence how companies manage ESG issues. Female CEOs are more collaborative and inclusive in decision-making, which can improve company performance and meet the expectations of all stakeholders..

2.6 Hypothesis Development

The Impact of Environmental, Social, and Governance (ESG) Disclosure on Financial Performance

The implementation of good ESG practices has become an important topic in financial research and corporate management, and a key concern for financial specialists and policymakers around the world. Many countries are striving to realise the potential for improvement offered by the implementation of good ESG practices, which focus not only on profit but also take into account the social impact of business operations (Deng et al., 2023). Additionally, disclosure of ESG-related information is crucial to meet stakeholder expectations and attract investment, which is increasingly considered by institutional investors in their decision-making processes (Crhisty, 2023). Thus, integrating environmental, social, and governance aspects into business strategies is not only beneficial for the company itself but also has a positive impact on society and the environment as a whole. Therefore, the implementation of good ESG practices can provide significant benefits for companies, such as increasing company value, financial performance, and access to financing sources.

The relationship between ESG practices and a company's financial performance can be understood through the stakeholder theory perspective, which emphasises that companies must prioritise the interests of all stakeholders, not just shareholders. Research by Vijaya (2023) shows that ESG scores have a positive impact on the financial performance of companies listed on the IDX ESG Leaders.

- H1a : Environmental aspects have a positive impact on a company's financial performance.
- H1b : Social aspects have a positive effect on a company's financial performance.
- H1c : Governance aspects have a positive effect on a company's financial performance.

The Moderating Effect of CEO Gender on ESG on Financial Performance

The influence of CEO gender in moderating the relationship between ESG practices and company financial performance is a relevant topic in research. CEO gender can influence how companies manage and communicate ESG practices, which in turn impacts financial performance. Nadeem et al. (2020) found in their research that female CEOs tend to focus more on environmental issues. In the context of stakeholder theory, female CEOs are oriented toward fulfilling the expectations of stakeholders who care about the environment. Additionally, decision-making theory suggests a collaborative approach to decision-making, which can enhance environmental performance. This improved performance has the potential to enhance the company's reputation and investor confidence, thereby positively impacting financial performance (Fatemi et al., 2018). Research by Zhou (2023) shows that female CEOs tend to manage risk better, contributing to the company's financial stability. Meanwhile, research conducted by Inostroza et al. (2023) shows that female CEOs tend to be more sensitive to social issues. Gender decision-making shows that female CEOs often have an inclusive decision-making style, which can encourage companies to be more active in social programmes.

- H2a : The CEO's moderates the relationship between Environmental and Financial Performance of Companies.
- H2b : The CEO's gender moderates the relationship between a company's social and financial performance.
- H2c : The CEO's gender moderates the relationship between corporate governance and financial performance.

3. METHOD

This study uses secondary data obtained from annual reports and sustainability reports of companies engaged in the energy and raw materials sector listed on the Indonesia Stock Exchange (IDX). The research population includes all manufacturing companies listed on the IDX during the period 2021–2024, with a total of 194 companies. The author selected the sample using purposive sampling techniques, and the selection process was assisted by EViews 12 software. Based on the established selection criteria, 136 companies were eligible to be included in the research sample. The author used TobinsQ measurements for financial performance variables, GRI Standard 2021 to measure ESG variables, and CEO Gender variables were measured using Dummy Variables.

Table 1: Criteria Sample

No	Criteria	Companies
1	Each company in the basic materials sector listed on the Indonesia Stock Exchange for the period 2021-2024.	107
2	Each company in the energy sector listed on the Indonesia Stock Exchange for the years 2021-2024.	87
3	Each company in the basic materials and energy sectors that did not publish sustainability reports and annual reports between 2021 and 2024.	(58)
	Total sample companies	136
	Total years of research	4
	Total research observations	544

Sources: Author, 2025

This study used descriptive statistical analysis and MRA to analyse the data. The regression equation used in this study is as follows:

$FP'Q_{it} = \alpha_u + \beta1ENV_{it} + \beta2CSR_{it} + \beta3GOV_{it} + \varepsilon_{it}$

$FP'Q_{it} = \alpha u + \beta1\ ENV_{it} + \beta2\ CSR_{it} + \beta3\ GOV_{it} + \beta4\ DM_{it} + \beta5\ (ENVxDM)_{it} + \beta6\ (CSRxDM)_{it} + \beta7\ (GOVxDM)_{it} + \varepsilon_{it}$

Where:

FP = Financial Performance
Q = Financial Performance *(Tobin'Q)*
α = Constanta
$\beta_1\ \beta_2\ \beta_3\ \beta_4$ = Koefisien regresi
EVN = Enviromental
CSR = *Social*
GOV = Gonvernances
DM = *CEO Gender*
it = Objek Ke-I dan Waktu Ke-T

4. RESULT AND DISCUSSION

4.1 Descriptive Statistical Tests

Descriptive statistics show the mean, median, maximum, minimum, and standard deviation of all variables in the study, including independent, dependent, and moderating variables(Ghozali, 2021). The results of the descriptive statistical test in this study are presented in Table 2:

Table 2: Descriptive Statistics

	FPQ	ENV	CSR	GOV	DM
Mean	0.998801	0.581266	0.554674	0.478579	0.049632
Median	0.985278	0.586911	0.602607	0.458293	0.000000
Maximum	1.819551	0.968850	0.975000	0.983100	1.000000
Minimum	0.116952	0.031350	0.025000	0.220300	0.000000
Std. Dev.	0.305081	0.209943	0.284943	0.282588	0.217384
Observations	544	544	544	544	544

Sources: Output Eviews 12, 2025

Descriptive statistics provide an overview of the central tendency and variability of the dataset. FP'Q has a minimum value of 0.116952 and a maximum value of 1.819551, with an average value of 0.998801 and a standard deviation of 0.305081. ENV has a minimum value of 0.031350 and a maximum value of 0.968850, with an average value of 0.581266 and a standard deviation of 0.209943. CSR has a minimum value of 0.025000 and a maximum value of 0.975000 with an average value of 0.581266 and a standard deviation of 0.209943. GOV has a minimum value of 0.220300 and a maximum value of 0.983100 with an average value of 0.478579 and a standard deviation of 0.282588. DM has a minimum value of 0.0000 and a maximum value of 1.00000 with an average value of 0.049632 and a standard deviation of 0.217384.

4.2 Data Panel Regression Model Test

In Panel Data Regression Model Testing, there are three tests, including Chow Test, Hausman Test, and Lagrange Multiplier Test. These can be used to select a model (estimation approach) to evaluate the regression equation to be estimated.

4.2.1 Chow Test

Table 3: Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.995227	(135,405)	0.5042
Cross-section Chi-square	155.849480	135	0.1058

Sources: Output Eviews 12, 2025

Table 3 shows that the Chi-square probability is 0.1058. Where the Chi-square probability value is < 0.05 (0.0000 < 0.05), it can be interpreted that H0 is accepted and the selected model is the Common Effect Model. Because the Common Effect Model is selected, the Lagrange Multiplier test is continued.

4.2.2 Lagrange Multiplier (LM) Test

Table 4: LM Test

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.002095	0.358219	0.360314
	(0.9635)	(0.5495)	(0.5483)

Sources: Output Eviews 12, 2025

Table 4 shows that the cross-section common probability is 0.5483. Where the cross-section common probability value is > 0.05 (0.5483 > 0.05), it can be concluded that H0 is accepted and H1 is rejected with the selected model, namely the Common Effect Model.

4.3 Classical Assumption Testing

4.3.1 Degree of Multicollinearity

Table 5: Results of Multicollinearity Degree Calculation

	ENV	CSR	GOV	DM
ENV	1.000000	0.013385	0.082515	-0.000220
CSR	0.013385	1.000000	-0.004981	-0.023501
GOV	0.082515	-0.004981	1.000000	-0.008879
DM	-0.000220	-0.023501	-0.008879	1.000000

Sources: Output Eviews 12, 2025

Based on the results of this multicollinearity test, it can be concluded that there is no multicollinearity problem in the regression model. This is because the relationship between independent variables has a correlation coefficient value <0.90 (Ismanto & Pebruary, 2021).

4.3.2 Heteroscedasticity Test

Table 6: Heteroscedasticity Test Results

Dependent Variable: ABS(RESID)

Method: Panel EGLS (Cross-section random effects)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.223744	0.033155	6.748339	0.0000
ENV	-0.026521	0.036960	-0.717558	0.4733
CSR	0.032576	0.026178	1.244403	0.2139
GOV	0.020273	0.021192	0.956619	0.3392
DM	-0.015150	0.035379	-0.428217	0.6687

Sources: Output Eviews 12, 2025

In table 6, it can be seen that the probability value of all variables is more than 0.05, where the probability value of ENV is 0.4733, the probability value of CSR is 0.2139, the probability value of GOV is 0.3392, and the probability value of DM is 0.6687, which means that the variables ENV, CSR, GOV, and DM are free from heteroscedasticity because the probability value is > 0.05.

4.4 t-Test

Table 7: LM Panel Data Test Results

Dependent Variable: FPQ

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.875268	0.056167	15.58324	0.0000
ENV	0.050854	0.062769	3.810167	0.0182
CSR	0.083646	0.044445	1.881999	0.0474
GOV	0.044421	0.035989	2.234318	0.0276

Sources: Output Eviews 12, 2025

Based on the results of table 7, it shows that the ENV variable has a regression coefficient value of 0.050854 with a positive value or in the same direction with a significance of 0.0182 <α 0.05. These results indicate that the Environmental variable has a positive and significant effect on Financial Performance (H1a is accepted). The CSR variable has a regression coefficient value of 0.083646 with a positive value or in the same direction with a significance of 0.0474 <α 0.05. These results indicate that the Social variable has a positive and significant effect on Financial Performance (H1b is accepted). The GOV variable has a regression coefficient value of 0.044421 with a positive value or in the same direction with a significance of 0.0276 <α 0.05. These results indicate that the Governance variable has a positive and significant effect on Financial Performance (H1b is accepted).

4.5 Moderated Regression Analysis (MRA)

Tabel 8: MRA Test Results

Dependent Variable: FPQ

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.882044	0.057686	15.29054	0.0000
ENV	0.046360	0.063886	0.725670	0.4684
CSR	0.082192	0.045906	1.790453	0.0739
GOV	0.039674	0.036747	1.079662	0.2808
DM	-0.180120	0.285748	-0.630348	0.5287
ENV_DM	0.180256	0.379125	0.475453	0.6347
CSR_DM	-0.005558	0.197550	-0.028133	0.9776
GOV_DM	0.130951	0.174924	0.748619	0.4544

Sources: Output Eviews 12, 2025

Based on the results of table 8, the results of the interaction of CEO Gender and Environmental variables have a regression coefficient value of 0.180256 with a negative value or not in the same direction with a significance of 0.6347> α 0.05. These results indicate that the CEO Gender variable is unable to moderate the influence of Environmental on Financial Performance (H2a is rejected). The results of the interaction of CEO Gender and Social variables have a regression coefficient value of -0.005558 with a positive value or not in the same direction with a significance of 0.9776> α 0.05. These results indicate that the CEO Gender variable is unable to moderate the influence of Social on Financial Performance (H2b is rejected). Finally, the results of the interaction of CEO Gender and Governance variables have a regression coefficient value of 0.130951 with a positive value or not in the same direction with a significance of 0.4544> α 0.05. These results indicate that the CEO Gender variable is unable to moderate the influence of Governance on Firm value (H2c is rejected).

4.6 The Impact of Environmental, Social, and Governance (ESG) Disclosure on Financial Performance

Based on the results of this study, it shows that H1a is accepted. The results of this study are in line with stakeholder theory as according to Elkington (2013), ESG disclosure functions as an accommodation for the impact of company activities on various categories of stakeholders such as shareholders, employees, customers, communities, government, and the environment. Ha *et al*. (2024), stated that the expectations of partners (stakeholders) who are invited to collaborate by the company through a network of various joint ventures will determine various steps in realizing the success of products and services. Environmental disclosure in Indonesian companies has shown an increasing trend in recent years, along with increasing awareness of the importance of sustainability and regulatory pressures. The adoption of environmental disclosure in Indonesian companies increased from around 60% in 2019/2020 to 74% in 2020/2021 among the largest listed companies (Qian *et al*., 2025). This study collected data on environmental disclosure aspects in companies engaged in the basic material and energy sectors in the period 2021 to 2024 as follows:

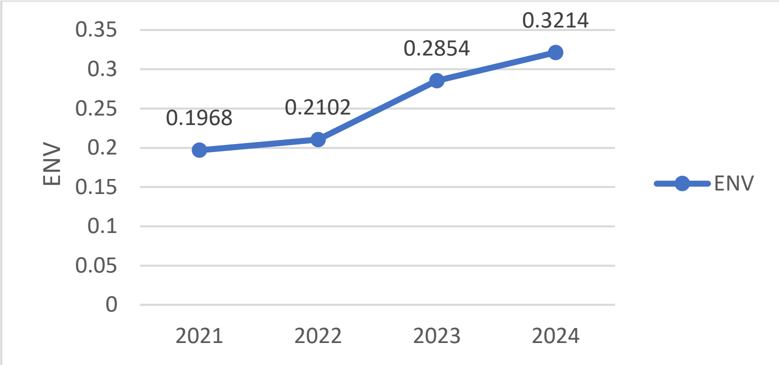

Figure 1. Average Environmental Disclosure of IDX Companies in Basic Material and Energy Sectors for the 2021-2024 Period
Sources: Author, 2025

Figure 1 shows a significant increasing trend in basic material and energy sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2021 to 2024. The ENV score increased from 0.1968 in 2021 to 0.3214 in 2024, indicating an improvement in the disclosure and management of environmental aspects by these companies. This increase can be understood in the context of increasingly stringent regulations from the Indonesian government and the Financial Services Authority (OJK), especially through POJK No. 51/2017 which requires public companies to prepare sustainability reports that include environmental aspects. The basic material and energy sectors, which have a large environmental impact, tend to be more responsive to these regulations due to pressure from various stakeholders, including investors, consumers, and the wider community.

From the perspective of stakeholder theory, more transparent and comprehensive environmental disclosure increases trust and support from stakeholders, which can ultimately strengthen the company's position in the market and have a positive impact on financial performance. In addition, an increase in the ENV score also reflects improvements in the company's environmental management practices, such as waste management, energy efficiency, and carbon emission reduction. This shows that the company not only fulfills its reporting obligations but is also committed to sustainability in a real way. The results of this study are in line with research by Vijaya (2023) and Adyaksana et al. (2023).

The next result shows that H1b is accepted, ESG elements that focus on social aspects include how the company treats employees, plays a role in the community, or pays attention to human rights. Companies that care about their people will provide safe working conditions, respect diversity, provide fair wages, and promote social welfare. They will also engage in community initiatives related to education, health, or community development that show contributions to broader social welfare (Zhang & Liu, 2022).

Social disclosure is not only a reporting obligation, but also an effective business strategy to increase trust and support from stakeholders (Zarefar *et al*., 2022). This study collected data on environmental aspect disclosure in companies engaged in the basic material and energy sectors in the period 2021 to 2024 as follows:

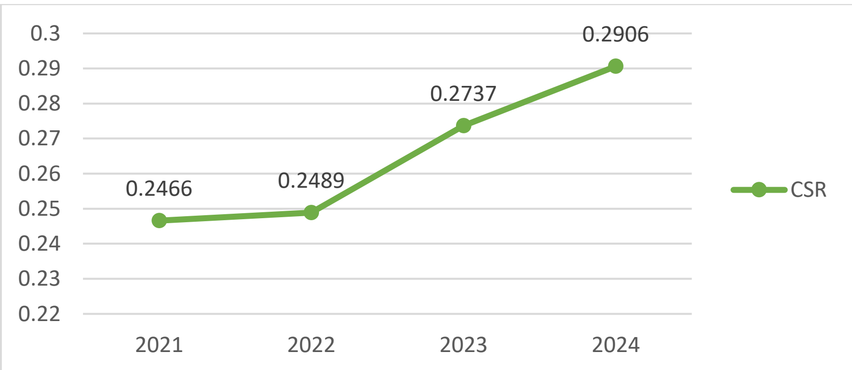

Figure 2. Average Social Disclosure of IDX Companies in Basic Material and Energy Sector for the 2021-2024 Period
Sources: Author, 2025

Figure 2 shows the average Social (CSR) score of basic material and energy sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2021 to 2024 showing a stable and significant increasing trend. The average CSR value increased from 0.2466 in 2021 to 0.2906 in 2024. This increase reflects an increase in company awareness and commitment in disclosing social aspects as part of Environmental, Social, and Governance (ESG) practices.

Companies engaged in the basic material and energy sector have a large social impact on the surrounding community and work environment, increasing social disclosure is very important. Companies in this sector have adopted international standards such as the Global Reporting Initiative (GRI) to improve the quality and credibility of their social reports. This not only increases public and investor trust, but also contributes to improving the company's financial performance through a better reputation and harmonious relationships with stakeholders.

As in stakeholder theory which emphasizes the importance of companies to meet the needs and expectations of various stakeholders such as employees, customers, local communities, and investors. If managing good and transparent relationships with stakeholders through effective social disclosure, companies can build trust and loyalty which ultimately increases the company's reputation and value. These results are in line with the research of Apriliyani & Riswan (2025) good CSR disclosure in manufacturing companies contributes positively to financial performance. In addition, Velte (2022), a quantitative meta-analysis of CSR and includes a structured literature review. A total of 54 meta-analyses were obtained and concluded that CSR performance and environmental performance improve financial performance.

The next result shows that H1c is accepted. Good corporate governance through a stakeholder approach means transparency, ethical and responsible business practices. This includes anti-corruption policies, diverse leadership structures, and principles of compliance with established regulations. This approach ensures that decisions and policies are made not only in the interests of management or majority shareholders, but also to pay attention to all relevant stakeholders. Through this approach, the implementation of stakeholder-oriented ESG helps companies gain broad support from communities, governments, and investors who are interested in sustainability impacts. Thus, the implementation of stakeholder-oriented ESG not only improves the company's reputation but also strengthens long-term relationships with stakeholders, which ultimately contributes to the company's value and long-term sustainability (Zumente & Bistrova, 2021). In recent years, the trend of disclosure of Governance aspects within the Environmental, Social, and Governance (ESG) framework in Indonesian companies has shown a significant increase. This reflects the increasing awareness of the importance of good corporate governance in supporting business sustainability and increasing company value (Hanafi & Utomo, 2025). This is supported by the results of the calculation of the average disclosure of governance in BEI companies as follows:

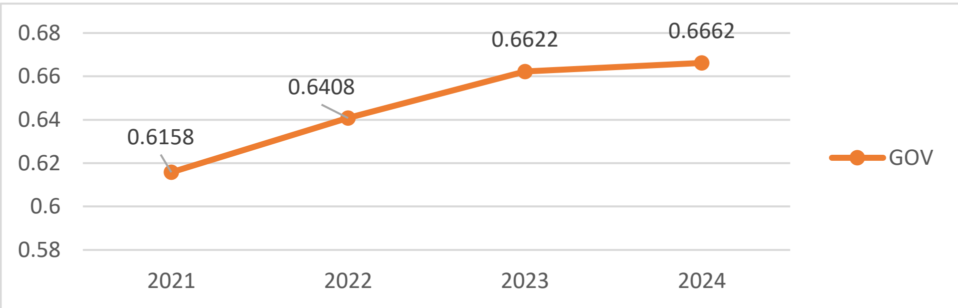

Figure 3. Average Corporate Governance Disclosure of IDX Basic Material and Energy Sector for the 2021-2024 Period
Sources: Author, 2025

Figure 3 shows the calculation of the average Governance (GOV) aspect in companies listed on the Indonesia Stock Exchange (IDX) in the Basic Material and Energy sector during the period 2021 to 2024. The graph shows a consistent increasing trend. The governance index value increased from 0.6158 in 2021 to 0.6662 in 2024. This increase indicates that companies in this sector are increasingly improving their corporate governance practices, including aspects of transparency, internal control mechanisms, diversity of the board of commissioners and directors, as well as risk reporting and internal audits.

This increase in governance disclosure is very important because good governance plays a major role in maintaining the trust of stakeholders such as investors, employees, customers, and regulators. Transparent and accountable governance, companies are able to manage risks more effectively, thereby reducing the potential for conflicts of interest, and increasing operational efficiency. This ultimately has a positive impact on the company's financial performance.

From the perspective of Stakeholder Theory, improving governance aspects reflects the company's efforts to meet the needs and expectations of various stakeholders. This theory emphasizes that companies are not only responsible to shareholders, but also to all parties with an interest in the company. Handayati *et al*. (2025), found a positive relationship between governance disclosure practices such as board diversity and sustainability committees with an increase in the ESG score of large companies in

Indonesia. The results of this study are in line with the results of research by Mohamad (2020); Wong *et al.* (2021); Aydoğmuş *et al*. (2022), Yu dan Xiao, (2022); found the same results, namely the positive influence of ESG on Financial Performance. In addition, Wardana & Darya (2023), highlighting manufacturing companies in Indonesia, then found that GCG mechanisms can strengthen the positive impact of governance on the company's financial performance.

4.7 The Moderating Effect of CEO Gender on ESG on Financial Performance

This study has analytical results that CEO Gender cannot moderate the relationship between ESG and Financial Performance, in this case H2a, H2b, H3c are not supported. The results of this study are not in accordance with the theory of gender decision-making which assumes that gender differences in decision-making styles will affect strategic outcomes, including in terms of sustainability and financial performance. Several empirical studies have shown that CEO gender does not always significantly moderate the relationship between environmental disclosure and financial performance (Dohrmann *et al*., 2024; Gutierrez-Romero *et al*., 2021; Wang *et al*., 2021).

One of the reasons is because other factors such as gender composition at the board of directors level, professional background, experience, and leadership structure (eg CEO duality) have a stronger influence in moderating this relationship. Almaqtari *et al*. (2024), showed that gender diversity on the board of directors significantly strengthens the positive impact of environmental performance on financial performance, while CEO gender itself is not always a strong moderating factor. In addition, CEO duality can weaken the positive effects of gender diversity, suggesting that organizational structure and role division also matter (Romano *et al*., 2020)..

Furthermore, gender stereotypes and biased market perceptions can obscure the real impact of female CEO decisions, so that the relationship between environmental and financial performance is not directly moderated by CEO gender. Muhammad (2025) also emphasized that although female CEOs tend to reduce ESG controversy, this does not directly moderate the relationship between environmental and financial performance. Thus, gender decision-making theory needs to be expanded to include more complex professional, social, and structural contexts in order to more accurately explain these dynamics.

A study conducted by Al-Shaer et al. (2024) found a substitution effect between CEO gender and board diversity in influencing ESG policies. The study showed that the presence of a “critical mass” of women on the board of directors has a greater impact on ESG disclosure than just having a female CEO. In some cases, gender diversity at the board level can even replace (substitute) the role of female CEOs in driving corporate sustainability practices, indicating that the influence of CEO gender does not stand alone, but is highly dependent on the collegial structure at the top level of management. In addition, data imbalance and statistical limitations are also important factors that explain why the moderating effect of CEO gender does not appear to be empirically significant. In various corporate datasets, the proportion of female CEOs is still much lower than that of men, creating an unbalanced sample. This imbalance results in a lack of variation in the moderator variable (CEO gender), which ultimately reduces the statistical power to accurately detect interaction or moderation effects. In other words, although theoretically female CEOs have the potential to drive better environmental management, small sample sizes limit the ability of studies to prove this statistically significant.

CONCLUSIONS AND SUGGESTION

This study confirms that Environmental, Social, and Governance (ESG) disclosure has a positive and significant impact on the financial performance of Basic Material and Energy sector companies listed on the Indonesia Stock Exchange (IDX) in the 2021-2024 period. This finding is consistent with stakeholder theory which emphasizes that companies that are able to meet the needs and expectations of stakeholders through ESG disclosure will gain greater trust and support, thereby improving the company's Financial Performance as reflected in Tobin's Q.

However, this study found that CEO Gender does not act as a significant moderating variable in the relationship between ESG disclosure and financial performance. This means that the presence of a female or male CEO does not strengthen or weaken the impact of ESG disclosure on financial performance. This finding indicates that in the context of the Basic Material and Energy sector in Indonesia in 2021 to 2024, the CEO Gender factor is not the main determinant in the effectiveness of ESG disclosure on financial performance. This may be due to the technical characteristics of the industry and strict regulations where ESG-related decisions are more influenced by company policies and organizational structures than differences in CEO Gender alone.

Based on the findings of this study, researchers recommend that companies in the Basic Materials and Energy sectors continue to optimize the quality and transparency of ESG disclosure as a primary strategy to increase market value, financial performance, and company competitiveness. In addition, regulators are expected to strengthen the implementation of stricter and more comprehensive sustainability reporting standards to support sustainable business practices in Indonesia.

Researchers also suggest that future studies measuring CEO Gender not only look at the CEO's gender aspect. Further researchers can explore several other aspects such as the age and length of the CEO's tenure. Based on research by Al-Shaer et al. (2024), younger female CEOs with shorter tenures tend to be more innovative and responsive to ESG issues, which can affect leadership effectiveness and its influence on ESG. The next aspect that can be observed is that Leadership Styles such as transformational, ethical, and risk tolerance often differ between male and female CEOs. This can affect how CEOs manage ESG (Oyinlola, 2025).

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We recognize that this study has certain limitations and requires further development. We hope that the findings of this study are not only limited to quantitative research but also contribute theoretically and practically. Therefore, we encourage future researchers to develop more detailed aspects in detail on the ESG aspect and CEO Gender measurement that allows for higher measurement accuracy.

REFERENCES

1) Al-Shaer, H., Zaman, M., & Albitar, K. (2024). CEO gender, critical mass of board gender diversity and ESG performance: UK evidence. *Journal of Accounting Literature*. https://doi.org/10.1108/JAL-10-2023-0181
2) 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
3) Apriliyani, N. S., & Riswan. (2025). Pengaruh Pengungkapan Corporate Social Responbility (CSR), Ukuran Perusahaan, dan Leverage terhadap Kinerja Keuangan pada Perusahaan Manufaktur yang Listing di Bursa Efek Indonesia Periode 2019-2023. *Jurnal EMT KITA*, *9*(2), 573–584. https://doi.org/https://doi.org/10.35870/emt.9i2.3721
4) Aydoğmuş, M., Gülay, G., & Ergun, K. (2022). Impact of ESG Performance on Firm Value and Profitability. *Borsa Istanbul Review*, *22*, 119–127. https://doi.org/10.1016/j.bir.2022.11.006
5) Barakat, H. A., Hossam, N., Tarek, N., Mohamed, S., & Emad, J. (2024). The Impact of Sustainable Investing on Financial Performance. *International Journal of Economics and Finance*, *16*(7), 86. https://doi.org/10.5539/ijef.v16n7p86
6) Cambrea, D. R., Quarato, F., D’Allura, G. M., & Paolone, F. (2025). Driving ESG performance: CEO succession impact in European listed firms. *Management Decision*, *63*(2), 512–530. https://doi.org/10.1108/MD-10-2023-2005
7) Dohrmann, M., Martinez-Blasco, M., Moring, A., & Margarit, J. C. (2024). Environmental performance and firm performance in Europe : The moderating role of board governance. *Corporate Social Responsibility and Environmental Management*, *31*(6), 5863–5880. https://doi.org/10.1002/csr.2898
8) Elkington, J. (2013). Enter the triple bottom line. *The Triple Bottom Line: Does It All Add Up*, *1*(1986), 1–16. https://doi.org/10.4324/9781849773348
9) Freeman, R. E. (1984). *Strategic management : a stakeholder approach*. Pitman.
10) Gholami, A., Murray, P. A., & Sands, J. (2022). Environmental, Social, Governance & Financial Performance Disclosure for Large Firms: Is This Different for SME Firms? *Sustainability*, *14*(10), 6019. https://doi.org/10.3390/su14106019
11) Ghozali, I. (2021). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25* (9th ed.). Badan Penerbit Universitas Diponegoro.
12) Gutierrez-Romero, G., Blanco-Oliver, A., Montero-Romero, M. T., & Carbonero-Ruz, M. (2021). The Impact of CEOs’ Gender on Organisational Efficiency in the Public Sector: Evidence from the English NHS. *Sustainability*, *13*(4), 2188. https://doi.org/10.3390/su13042188
13) Ha, N. T. T., Nguyen, T. C., & Ho, N. T. B. (2024). The impact of environmental, social and governance disclosure on stock prices: Empirical research in Vietnam. *Heliyon*, *10*(19), 38757. https://doi.org/10.1016/j.heliyon.2024.e38757
14) Hanafi, W. B. P., & Utomo, L. P. (2025). Pengaruh Pengungkapan Enviromental Sosial Governance Terhadap Kinerja Keuangan Perusahaan Pada Sektor Pertambangan Yang Terdaftar Di Bursa Efek Indonesia (BEI) Tahun 2019-2023. *Jurnal Ekuilnomi*, *7*(1), 12–24. https://doi.org/10.36985/q9gyh751
15) Handayati, P., Tham, Y. H., Yuningsih, Y., Sun, Z., Nugroho, T. R., & Rochayatun, S. (2025). ESG Performance and Corporate Governance—The Moderating Role of the Big Four Auditors. *Journal of Risk and Financial Management*, *18*(1), 31. https://doi.org/10.3390/jrfm18010031
16) Haryanto, A. (2022). The impact of global commodity prices on financial performance in Indonesia. *International Journal of Economics and Finance*, *14*(3), 112–120.

17) Hassan, S., & Shafique, M. (2019). Impact of management practices on financial performance: A study of manufacturing sector. *Journal of Economics and Financial Issues*, *9*(13), 153–160.
18) Hussain, W., Ong, T. S., Kamarudin, F. Bin, Khan, M. A., & Bács, Z. (2024). ESG disclosure, firm internationalization, and firm financial performance: Evidence from Asia-Pacific. *JOURNAL OF INTERNATIONAL STUDIES*, *17*(2), 240–261. https://doi.org/10.14254/2071-8330.2024/17-2/13
19) Igbinovia, I. M., & Agbadua, B. O. (2023). Environmental, Social, and Governance (ESG) Reporting and Firm Value in Nigeria Manufacturing Firms: The Moderating Role of Firm Advantage. *Jurnal Dinamika Akuntansi Dan Bisnis*, *10*(2), 149–162. https://doi.org/10.24815/jdab.v10i2.30491
20) Ismanto, H., & Pebruary, S. (2021). *Aplikasi SPSS dan Eviews Dalam Analisis Data Penelitian*. Deepublish.
21) Jeanice, J., & Kim, S. S. (2023). Pengaruh Penerapan ESG Terhadap Nilai Perusahaan di Indonesia. *Owner*, *7*(2), 1646–1653. https://doi.org/10.33395/owner.v7i2.1338
22) Li, Q., Tang, W., & Li, Z. (2024). ESG systems and financial performance in industries with significant environmental impact: a comprehensive analysis. *Frontiers in Sustainability*, *5*(1), 1–12. https://doi.org/10.3389/frsus.2024.1454822
23) Liu, Z. (2025). The Impact of Female Executives on Corporate ESG Scores from the Perspective of Social Capital. *Advances in Economics, Management and Political Sciences*, *160*(1), 196–202. https://doi.org/10.54254/2754-1169/2025.19807
24) Ma, L., Yuan, X., Lu, J., Li, Y., Gao, W., Yan, H., & Zhang, X. (2024). The ESG performance influence mechanism analysis-based on empirical analysis. *PLOS ONE*, *19*(5), e0295548. https://doi.org/10.1371/journal.pone.0295548
25) Meutia, I., Kartasari, S. F., Yusrianti, H., & Daud, R. (2024). The Role of Carbon Pricing Policy on Environment, Social, and Governance Performance in Asia Countries. *Management and Accounting Review*, *23*(3), 121–137. https://doi.org/10.24191/MAR.V23i03-05
26) Mohamad, N. (2020). Do Environmental, Social, and Governance Practices (ESG) Signify Firm Value? Evidence from FTSE4Good Bursa Malaysia (F4GBM). *Global Business and Management Research: An International Journal*, *12*(4), 365–376.
27) Muhammad, H. (2025). CEO Gender and ESG Controversies. *Economic Papers: A Journal of Applied Economics and Policy*, *44*(1), 91–100. https://doi.org/10.1111/1759-3441.12430
28) Nandini, E. S., Sudharani, R., & Suresh, N. (2022). A Study on Impact of Environmental Accounting on Profitability of Companies listed in Bombay Stock Exchange. *Bulletin Monumental*, *21*(08), 46–51.
29) Nian, H., & Said, F. F. (2025). The Impact of ESG on Firm Risk and Financial Performance: A Systematic Literature Review. *Journal of Scientometric Research*, *13*(3s), s144–s155. https://doi.org/10.5530/jscires.20041187
30) Oyinlola, B. (2025). Do CEO and board characteristics matter in the ESG performance of their firms? *Corporate Governance: The International Journal of Business in Society*, *25*(8), 21–39. https://doi.org/10.1108/CG-01-2024-0052
31) Prayitno, E., Adam, M., Widiyanti, M., & Fuadah, L. (2024). Impact of ESG Disclosure on Financial Performance with Leverage as an Intervening Variable in Mining Companies Listed on The Indonesia Stock Exchange. *International Journal of Business, Economics & Management*, *7*(2), 81–87. https://doi.org/10.21744/ijbem.v7n2.2285
32) Qian, W., Dissanayake, D., Leong, S., Kuruppu, S., & Tilt, C. (2025). Sustainability reporting in Indo-Pacific countries: an integrative response to local and global frameworks. *Meditari Accountancy Research*, *33*(7), 157–198. https://doi.org/10.1108/MEDAR-06-2024-2540
33) Romano, M., Cirillo, A., Favino, C., & Netti, A. (2020). ESG (Environmental, Social and Governance) Performance and Board Gender Diversity: The Moderating Role of CEO Duality. *Sustainability*, *12*(21), 9298. https://doi.org/10.3390/su12219298
34) Savio, R., D'Andrassi, E., & Ventimiglia, F. (2023). A Systematic Literature Review on ESG during the COVID-19 Pandemic. *Sustainability*, *15*(3), 2020. https://doi.org/10.3390/su15032020
35) Velte, P. (2022). Meta-analyses on Corporate Social Responsibility (CSR): a literature review. In *Management Review Quarterly* (Vol. 72, Issue 3). Springer International Publishing. https://doi.org/10.1007/s11301-021-00211-2
36) Wang, B., Wang, Z., Wen, J., & Zhang, X. T. (2021). Executive Gender and Firm Environmental Management: Evidence from CFO Transitions. *Sustainability*, *13*(7), 3653. https://doi.org/10.3390/su13073653
37) Wardana, F. R., & Darya, K. (2023). Pengaruh Mekanisme Good Corporate Governance terhadap Kinerja Keuangan Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2017-2019. *Jurnal Keuangan Dan Perbankan*, *17*(1), 25. https://doi.org/10.35384/jkp.v17i1.319
38) Whelan, T., Atz, U., & Clark, C. (2021). ESG and Financial Performance. *NYU Stern Center for Sustainable Business-Rockefeller Asset Management Working*, *1*(1), 1–19. https://doi.org/10.4018/978-1-5225-7180-3.ch029
39) Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification

add firm value? *Finance Research Letters*, *39*(1), 1–18. https://doi.org/10.1016/j.frl.2020.101593

40) Yu, X., & Xiao, K. (2022). Does ESG Performance Affect Firm Value? Evidence from a New ESG-Scoring Approach for Chinese Enterprises. *Sustainability*, *14*(24), 16940–16953. https://doi.org/10.3390/su142416940
41) Yunisvita, Y., Selvaratnam, D. P., Robiani, B., Rohima, S., Bashir, A., Apriani, D., & Yarsah, W. N. (2025). Circular Economy in The Concept of Waste Management : Implementation of Community-Based Environmental Management. *Jurnal Pengabdian UNDIKMA*, *6*(2), 247. https://doi.org/10.33394/jpu.v6i2.14337
42) Zarefar, A., Agustia, D., & Soewarno, N. (2022). Bridging the Gap between Sustainability Disclosure and Firm Performance in Indonesian Firms: The Moderating Effect of the Family Firm. *Sustainability*, *14*(19), 12022. https://doi.org/10.3390/su141912022
43) Zhang, D., & Liu, L. (2022). Does ESG Performance Enhance Financial Flexibility? Evidence from China. *Sustainability*, *14*(18), 11324–11355. https://doi.org/10.3390/su141811324
44) Zumente, I., & Bistrova, J. (2021). ESG Importance for Long-Term Shareholder Value Creation: Literature vs Practice. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(2), 127–139. https://doi.org/10.3390/joitmc7020127