Eduvest – Journal of Universal Studies
Volume 4 Number 07, July, 2024
p- ISSN 2775-3735- e-ISSN 2775-3727

THE INFLUENCE OF CEO CHARACTERISTICS ON ENVIRONMENTAL, SOCIAL, & GOVERNANCE (ESG) STRATEGIES IN NON-FINANCIAL SECTOR COMPANIES LISTED ON THE INDONESIAN STOCK EXCHANGE (IDX)

Ika Safitri[1], Muhammad Saiful Hakim[2], Leonardus Arya Dewangga[3], Muhammad Haris Jauhari[4]
[1,2,3,4] Departement of Business Management, Institut Teknologi Sepuluh November, Surabaya, Indonesia
Email: muh.saiful.hakim@gmail.com

ABSTRACT

Global issues such as climate change, social injustice, and corporate misconduct have driven the emergence of the Environmental, Social, & Governance (ESG) concept as the foundation of business and investment strategies. While Indonesia has been a pioneer in ESG bond issuance, further steps are still needed to support national policies and ensure alignment with ASEAN and G20 goals in supporting sustainable finance. This study aims to determine the effect of CEO characteristics, namely Gender and Education, on the Environmental, Social, & Governance (ESG) of companies listed on the Indonesia Stock Exchange (IDX). The literature shows that Gender, Education, and CEO Experienxe affect the company's funding policy and capital structure, but the impact on ESG implementation is unclear. This study used a sample of 365 with a total of 73 companies. The data processing method used is panel linear regression analysis using RStudio software. The results showed that CEO gender has an insignificant positive effect, CEO education has a significant positive effect, and CEO experience has a significant negative effect on the ESG strategy score. The results of the study are expected to help companies in making policies to improve ESG and help investors in choosing ESG companies.

KEYWORDS *Gender CEO, Education CEO, Experience CEO, Environmental, Social, & Governance (ESG)*

How to cite: Ika Safitri et al. (2024). The Influence Of Ceo Characteristics On Environmental, Social, & Governance (ESG) Strategies In Non-Financial Sector Companies Listed On The Indonesian Stock Exchange (IDX). *Journal Eduvest. 4* (7): 6129-6145
E-ISSN: 2775-3727
Published by: https://greenpublisher.id/

INTRODUCTION

The world is currently faced with critical issues such as climate change, social injustice, and corporate wrongdoing, which have increased attention to corporate responsibility and sustainability efforts (Khalil et al., 2022). A growing number of individuals agree that the business world should be at the forefront of solving these problems (Khalil et al., 2022).. This emerging paradigm gave birth to the concept of Environmental, Social, & Governance (ESG) criteria, which is rapidly becoming the foundation of contemporary business strategy and investment decision-making (Gillan et al., 2021). (Gillan et al., 2021). ESG reflects how companies and investors integrate environmental, social, and governance considerations into their business practices .

A company's ESG performance indicates how well it complies with its social responsibilities as well as the aspirations of stakeholders such as investors, suppliers, lenders and neighboring communities. ESG refers to how corporations and investors integrate environmental, social, and governance considerations into their business models. (Gillan et al., 2021). ESG is also defined as a set of practices and activities undertaken by companies to highlight their social role in meeting various stakeholder groups. (Al Amosh et al., 2023).. ESG also measures how well companies operate in areas beyond their financial success (Zahid et al., 2021). (Zahid et al., 2023).

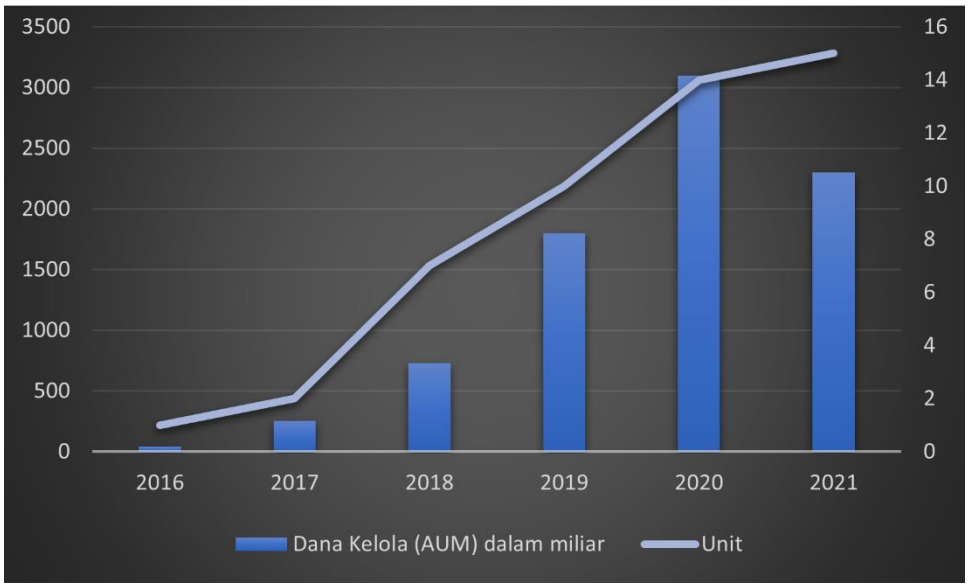

Figure 1.1 Value of Managed Funds and Number of ESG Mutual Fund Products in Indonesia (Databoks, 2022)

Awareness of environmental issues such as climate change has been a major factor driving investors and asset managers to pay attention to ESG. (PwC, 2022). Environmental issues are gaining global attention, and *ESG* investments provide a way to address environmental challenges. Most investors also recognize that *ESG* investments can generate higher returns than equivalent *non-ESG* investments. (PwC, 2022). This motivates many investors to shift to more sustainable investment

strategies, leading to an increase in *ESG investments* as seen in figure 1.1. In addition, *ESG* investments are often considered a long-term strategy that can provide benefits to the environment, society, and the company itself (PwC, 2022). It can also help companies mitigate long-term risks associated with *ESG* issues.

Indonesia has emerged as a global and regional pioneer in *ESG-related* bond issuance, including sharia-compliant financing and SDG-related bonds. (PWC, 2021). National policies have played an important role in raising awareness of sustainable finance, highlighting the huge potential for *ESG financing* in Indonesia. (PWC, 2021). Given Indonesia's position as the fourth most populous country in the world, the country has great potential to continue attracting investment from various industry sectors. Indonesia also has the opportunity to become a key actor in the global carbon trading market. The Indonesian government has shown pro-activity in creating a conducive environment for the transition towards ESG compliance. (PWC, 2021). However, there are still important steps that need to be taken to support policies at the national level and ensure alignment with ASEAN and G20 goals. (PWC, 2021).

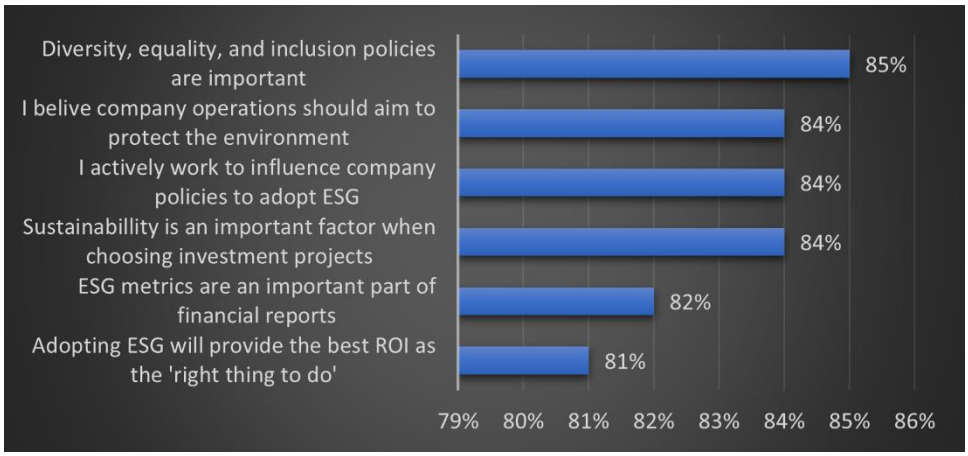

Figure 1.2 Percentage of CEOs' attitudes towards ESG across Asia Pacific countries by 2023 (Bloomberg Statista, 2023)

To ascertain the necessary steps that need to be taken to support *ESG* policies at the national level, *Environmental, Social, & Governance* (*ESG*) related issues and initiatives are receiving increasing attention. Based on a survey of business leaders, about eight out of ten indicated a favorable attitude towards *ESG* initiatives. This supportive attitude from business leaders is crucial for companies to face the challenges of *ESG* implementation. Business leaders in Indonesia recognize the long-term benefits of *ESG* compliance, including in terms of enhancing reputation, risk management, and potential profitability growth.

Challenges related to *ESG* implementation have become a major concern for many stakeholders in various sectors. One of the main challenges faced is the lack of comparable historical data to conduct in-depth analysis. (CFA Institute, 2019). Lack of comparability, transparency and long track records are the main obstacles in ESG analysis. (CFA Institute, 2019). Although there are demands for self-disclosure by 2020, it is expected to take a few more years before there is enough

data for further analysis, after which *ESG* investing will be based on a solid foundation and investor adoption is expected to increase (CFA Institute, 2019). (CFA Institute, 2019). In this context, it is important to understand that these challenges require innovative and collaborative solutions. Increased education, awareness, and leadership in *ESG*, as well as cooperation between companies, investors, and regulators can help overcome these barriers and ensure that *ESG* principles are effectively integrated in business and investment strategies (CFA Institute, 2019). (CFA Institute, 2019). The awareness to implement *ESG is* influenced by *decision making* and policies made by business leaders (Guedhami et al., 2019). (Guedhami et al., 2022)..

Decisions and policies made by CEOs are influenced by their background, including *gender* and education. A study examined the effect of CEO *gender* on corporate funding. The result of the study is that the CEO's *gender* has a negative influence on the company's funding policy. (Santoso et al., 2022). These findings are in line with research conducted by Faccio et al. (2016) and (Huang, 2013)(Huang, 2013), where companies led by female CEOs tend to avoid debt-related risks. Men tend to take risks, while women tend to choose safe options over risky options. Therefore, it can be concluded that the CEO's *gender* can influence the decision-making process related to company policy. (Santoso et al., 2022). In addition to the CEO's *gender*, the last *education* owned by the CEO also affects the decisions and policies they make. This includes decisions and policies related to the company's *ESG* strategy.

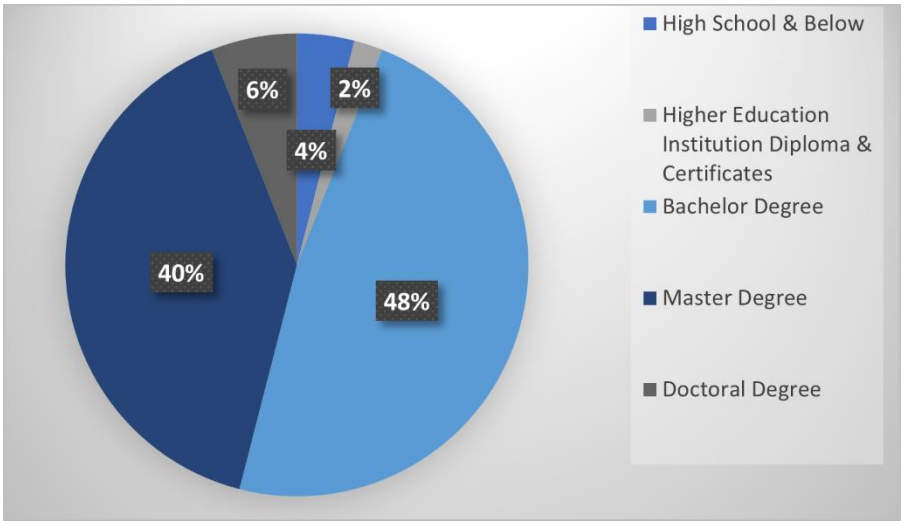

Figure 1.3 Highest Education Completed by CEO (ELS JISH, 2022)

Based on Figure 1.3, the majority of CEOs have a university education background. The details are: 2% have a Diploma, 48% have a Bachelor's degree, 40% have a Master's degree, and 6% have a Doctoral degree. The difference in educational background affects the CEO's leadership and decision-making capabilities, which are crucial for the development of the company. A study examined the relationship between CEO education and experience and the dynamic capital structure (DCS) of firms in Indonesia. The results show that CEO education

and experience have a significant positive influence on DCS. (Chua et al., 2022).. Another study explored the impact of *Gender*, educational background, and age of CEO on funding. The study found that CEO education has a significant positive effect on funding (Santoso et al., 2022). (Santoso et al., 2022). Based on these studies, it can be concluded that the majority of CEOs in Indonesia have at least a Bachelor's degree in engineering, economics, or business, and their educational background affects the company's performance and strategic decisions. The next background factor that needs to be taken into account is the CEO's experience. Previously, research conducted by Y. Liu et al. (2023) have explored the correlation between CEO experience and Environmental, Social, and Governance (ESG) performance. The findings of the study concluded that CEOs who have international experience tend to improve the ESG performance of the company, especially when the CEO is female, has higher education, and the company is under state ownership (Y. Liu et al., 2023). Thus, CEO experience, particularly in an international context, can play an important role in influencing how companies manage their sustainability aspects, and considering this factor can be a key element in the development of corporate sustainability strategies.

This study discusses the influence of CEO characteristics, namely gender, education, and experience, on the implementation of Environmental, Social, & Governance (ESG) in non-financial sector companies listed on the Indonesia Stock Exchange (IDX). The goal is to find out how each of these CEO characteristics affects ESG. The theoretical benefits of this research include as a reference for further research and literature for academics on the influence of CEO characteristics on ESG. The practical benefits are for the government and regulators in making ESG policies, as well as for companies in formulating effective ESG policies. The scope of the study includes an analysis of 825 non-financial companies on the IDX that have published annual financial reports from 2018 to 2022 and have ESG strategy scores available on Bloomberg.

This study utilizes various previous studies that discuss the influence of CEO characteristics on Environmental, Social, and Governance (ESG) performance in non-financial companies. Some notable findings include: 1. Khan and Vieito (Journal of Economics and Business) found that companies led by female CEOs show better performance and lower risk levels compared to companies led by male CEOs. 2. Romano et al. (Sustainability) concluded that gender diversity on the board of directors is positively correlated with ESG scores, although CEO concurrency has a negative impact on ESG scores. 3. Aabo and Giorici (Global Finance Journal) show that companies with female CEOs have higher ESG scores, especially in the environmental and social pillars. 4. Wan et al. (Finance Research Letters) identified a positive relationship between executive education scores and ESG disclosure, suggesting that executives with higher levels of education tend to have better ESG disclosure practices. 5. Kutzschbach et al. (Management Studies) found a significant relationship between CEO educational background and ESG scores, where CEOs with a bachelor's degree showed better ESG performance. 6. Liu et al. (Business Strategy and the Environment) found that CEOs with international experience, especially from developed countries, tend to improve the ESG performance of companies in China.

Based on the available literature, it is known that the CEO's *gender*, education, and experience affect the company's funding policy and capital structure. However, the impact of these characteristics on *ESG* implementation is still not clearly defined. Answering this question is essential to understand how firms can more efficiently implement *ESG* and achieve their sustainability goals. Therefore, this study aims to fill the knowledge gap and provide a new understanding of how corporate leadership characteristics affect *ESG* implementation. The results of this study are expected to assist companies in structuring more effective *ESG* implementation, provide guidance for stakeholders in making investment decisions, as well as provide suggestions for policy makers on how to support companies in their efforts towards sustainability. As a research title, the author chose "The Effect of Ceo Characteristics on Environmental, Social, & Governance (Esg) Strategies in Non-Financial Sector Companies Listed on the Indonesia Stock Exchange (Bei) ".

Hypothesis

The hypothesis of this study based on several previous studies that have been presented is as follows.

H1: CEO *gender has a* positive effect on *Environmental, Social, & Governance* (ESG) in non-financial sector companies listed on the IDX (Indonesia Stock Exchange).

H2: CEO education has a positive effect on *Environmental, Social, & Governance* (ESG) in non-financial sector companies listed on the IDX (Indonesia Stock Exchange).

H3: CEO experience has a positive effect on *Environmental, Social, & Governance* (ESG) in non-financial sector companies listed on the IDX (Indonesia Stock Exchange).

RESEARCH METHOD

This research involves several stages, namely problem identification, literature study, variable identification, preparation of research framework, data collection, data processing using RStudio, results and discussion, and drawing conclusions and suggestions. The objective is to examine the influence of CEO characteristics (gender, education, and experience) on the company's ESG strategy score.

This research uses quantitative methods with a focus on testing theories and hypotheses through measuring variables in numerical format. The type of research used is explanatory, which aims to understand the relationship between the variables studied and test the influence of these variables. This research is also included in the associative form or cause-and-effect relationship.

The data used in this study are secondary data obtained from the annual financial statements of companies listed on the Indonesia Stock Exchange (IDX) for the period 2018-2022. Data on CEO characteristics are obtained from annual financial reports, while the company's ESG strategy score is obtained from reports available on the Bloomberg website.

The research sample was taken using purposive sampling method, with the criteria of companies listed on the IDX, publishing annual financial reports during

the research period, and publishing ESG strategy scores on the Bloomberg website. The study population was 825 non-financial companies listed on the IDX.

The research model used tests three hypotheses: the influence of CEO gender, CEO education, and CEO experience on the ESG of non-financial companies listed on the IDX. Data analysis was conducted using descriptive statistics to describe the condition of the research variables and panel data regression model testing through RStudio. Testing techniques include the F test (simultaneous test) and t test (partial test) to assess the effect of independent variables on the dependent variable as a whole and partially.

The results of hypothesis testing show that the CEO characteristics variable has a significant influence on the company's ESG score. This study uses several approaches in estimating panel data regression models, including common effect, fixed effect, and random effect models, to ensure the accuracy and validity of the model used.

RESULT AND DISCUSSION

Descriptive Statistics

In this study, the authors used panel data which is a combination of time series data and cross-sectional data. The time series data that the author uses covers a five-year period, from 2018 to 2021. The author collected information from 825 non-financial sector companies listed on the IDX, but only 73 companies were obtained that met the sample requirements. Based on the data collected, there are a total of 365 research samples. The following are descriptive statistics from the results that the author processed using RStudio *software*.

Table 4.1 Descriptive Statistics of Research Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ESG	365	43,18	11,64112	19	73,87
GEN	365	0,04384	0,2050103	0	1
EDU	365	0,474	0,5000075	0	1
EXP	365	0,674	0,4694009	0	1

Table 4.2 Sample Tabulation of CEO Characteristics

Gender		***Education***		***Experience***	
Male	Female	S1 or below	Master's degree or above	Previously served in another company	Never served in another company
349	16	192	173	246	119

Based on the results of research data processing that has been listed in tables 4.1 and 4.2, it can be explained for each variable used as follows.

1. *Environment, Social, & Governance* (ESG)

The Environment, Social, & Governance (ESG) strategy score is an important indicator in evaluating a company's environmental, social, and governance performance. In a related study, the overall average ESG score reached 43.18, with a variation of 11.64112 from this value, indicating a significant spread in the data. From the maximum value achieved, 73.87, it can be inferred that some companies achieve excellent ESG performance, and demonstrate a high level of transparency in reporting material ESG data to the public. For example, PT Indo Tambangraya Megah Tbk emerged as one of the companies with the highest ESG scores in both 2021 and 2022, signaling their commitment to sustainable practices and good stewardship. On the other hand, a minimum ESG score of 19 indicates relatively poor performance on ESG, as well as insufficient transparency in reporting important ESG data. For example, PT Ace Hardware Indonesia Tbk in 2019 received this lowest score, indicating the need for improvement in ESG practices and transparency in reporting to achieve better standards. As such, ESG analysis becomes a vital instrument for stakeholders in assessing and promoting corporate social and environmental responsibility more holistically.

2. *Gender*

In the analysis of CEO gender data, a value of 1 indicates the presence of female CEOs in the sample, while a value of 0 indicates the presence of male CEOs. From the available data, it can be seen that the majority of CEOs in the sample are male, with a total sample size of 349, while female CEOs are only recorded in 16 samples. This illustrates the gender imbalance that is still evident in executive-level leadership positions. In addition, the average of the data generated from this analysis is 43.18, with a standard deviation of 0.2050103. This average value provides an overview of the overall distribution of data regarding the presence of gender in CEO positions. The relatively small standard deviation indicates that the data tends to be close to the mean, indicating consistency in gender distribution among the CEO sample analyzed. This analysis underscores the importance of understanding gender representation in leadership, as well as the need for efforts to promote gender equality at all levels of the organization. Through more in-depth monitoring and understanding of data like this, organizations can identify existing gender inequalities and take steps to improve gender inclusivity and equity in their work environments.

3. *Education*

In analyzing the CEO's education level, a value of 1 indicates that the sample has a Master's degree or higher, while a value of 0 indicates that the sample has a Bachelor's degree or below. From the observed data, it can be seen that the majority of CEOs have a bachelor's degree or below, with the number of samples reaching 192, while CEOs with a master's degree or above are recorded as 173 samples. This indicates that the majority of CEOs in the sample have a lower level of education. The average education data generated from this analysis is 0.474, with a standard deviation value of 0.5000075. This average value provides an overview of the overall distribution of data regarding the education level of the CEOs in the sample analyzed. The relatively large standard deviation indicates significant variation in the level of education among the sample

of CEOs, signaling diversity in their educational backgrounds. This analysis highlights the importance of understanding the level of education in the context of leadership, and its implications for performance and decision-making. While formal education is not the sole determinant of success in a leadership role, recognition of a variety of educational backgrounds can help enrich the perspectives and knowledge that leaders bring to the table. By understanding CEO education patterns, organizations can identify opportunities to support career development and diverse educational experiences, as well as promote policies that support greater educational accessibility for future leaders.

4. *Experience*

In analyzing CEO experience, a value of 1 indicates that the CEO sample has served in other companies, while a value of 0 indicates that the CEO sample has no such experience. From the data obtained, it can be seen that the majority of CEOs have experience in serving in other companies, with a total sample size of 246, while there are 119 CEOs who do not have such experience. This shows that most of the CEOs in the sample have diverse experience and have worked in several companies before becoming the current CEO. The average experience data generated from this analysis is 0.674, with a standard deviation of 0.4694009. This average value provides an overview of the overall distribution of data regarding CEO experience in the sample analyzed. The relatively large standard deviation indicates significant variation in the level of experience among the sample of CEOs, indicating the diverse backgrounds and professional experiences of these leaders. This analysis highlights the importance of understanding the professional experience of CEOs in the context of leadership, as well as the implications for their ability to manage companies and face business challenges. Extensive experience can help CEOs make more informed decisions and deal with complex situations. By understanding CEO experience patterns, organizations can identify potential candidates whose backgrounds match the company's needs, and develop appropriate leadership development programs to support career growth and better leadership capabilities in the future.

Panel Data Regression Model Results

Common Effect Model

Common Effect Model (CEM) is a type of panel data regression model used to estimate the effects of predictor variables on response variables at each time or period, while controlling for fixed effects on each individual unit. In CEM, it is assumed that each individual unit has the same intercept at each time. The following is the estimator of the resulting CEM model.

Table 4.3 CEM Parameter Estimation without Variable Selection

Variables	Parameter Estimator	P-Value
Intercept	42,3424	$< 2{,}2 \times 10^{-16}$
GEN (Gender)	4,8994	0,097019
EDU (Education)	3,9553	0,001081
EXP (Experience)	-1,8643	0,147682

Based on the parameter estimation results contained in table 4.3, the CEM model equation can be written as follows.

$$ESG = 42{,}3424 + 4{,}8994GEN + 3{,}9553EDU - 1{,}8643EXP$$

The results show that gender has an insignificant positive effect on ESG strategy scores, then education has a significant positive effect on ESG strategy scores, while experience has an insignificant negative effect on ESG strategy scores.

Fixed Effect Model

Fixed Effect Model (FEM) is a type of panel data regression model used to estimate the effects of predictor variables on response variables at each time or period, and controls for fixed effects on each individual unit. In FEM, it is assumed that the intercept or constant at each individual unit is different at each time or period. The following is the estimator value of the resulting FEM model.

Table 4.4 FEM Parameter Estimation without Variable Selection

Variables	Parameter Estimator	P-Value
GEN (Gender)	0,13381	0,9554385
EDU (Education)	2,96658	0,0641337
EXP (Experience)	-4,47152	0,0006406

Based on the results in table 4.4, the *fixed effect* model equation can be formed as follows.

$$ESG = \alpha_i + 0{,}13381GEN + 2{,}96658EDU - 4{,}47152EXP$$

Table 4.4 shows the results that Gender and education have an insignificant positive influence on ESG strategy scores while experience has a significant negative influence on ESG strategy scores.

Random Effect Model

Random Effect Model (REM) is one type of panel data regression model used to estimate the effect of response variables on predictor variables at each time or period, and control for fixed or constant effects on each individual unit. The following is the parameter estimation value of the resulting REM model.

Table 4.6 REM Parameter Estimation without variable selection

Variables	Parameter Estimator	P-Value
Intercept	44,22110	$< 2{,}2 \times 10^{-16}$
GEN (Gender)	0,90097	0,6903005
EDU (Education)	3,31963	0,0148773
EXP (Experience)	-3,94477	0,0008949

Based on the parameter estimation results in table 4.6, the equation for the REM model can be formed as follows.

$$ESG = 44{,}22110 + 0{,}90097GEN + 3{,}31963EDU - 3{,}94477EXP + \lambda_i$$

Table 4.6 shows that the gender variable has a significant positive effect on the ESG strategy score, then the education variable has a significant positive effect

on the ESG strategy score, while the experience variable has a significant negative effect on the ESG strategy score.

Panel Data Regression Model Selection

Chow Test

The Chow test was conducted to choose between the appropriate CEM or FEM model. The resulting *p-value* is $< 2.2 \times 10^{-16}$, then it can be decided that reject H_0 and it can be concluded that the FEM model is better than the CEM model.

Hausman Test

Hausman test to assess which model is better between the FEM and REM models. The results show that the *p-value* is 0.6277. With a p-value that is more than the significance level (0.05), it can be decided to fail to reject the Hausman test. H_0 and it can be concluded that the REM model is better than the FEM model.

Lagrange Multiplier Test

The Lagrange Multiplier test is a test to assess which model is better between the REM model and the CEM model. The results show that the *p-value* of $< 2.2 \times 10^{-16}$, then it can be decided that reject H_0 and it can be concluded that the REM model is better than the CEM model.

Model Selection Decision

From the three tests that have been carried out, it can be concluded that the best model to model the company's ESG strategy is the REM model.

Parameter Significance Test

After obtaining the best model through the tests that have been carried out, then the parameter significance test is carried out to see the effect of the predictor variables used in the model on the company's ESG strategy score.

Concurrent Test

The simultaneous test was conducted to see the effect of the predictor variables on the response variable as a whole. The results show that the value F_{stat} is 16.03025 and the *p-value* is $<7.561578.\times 10^{-5}$. Then it can be concluded that there is at least 1 predictor variable that has a significant influence on the ESG strategy score model. Therefore, the REM model is said to pass the simultaneous test.

Partial Test

Because in the previous test the model has passed the simultaneous test, then a partial test is carried out to see which predictor variables have a partial or individual influence on the model. The test statistical results are as follows.

Table 4.8 REM Significance Test without Variable Selection

Variables	P-Value
GEN (Gender)	0,6903005
EDU (Education)	0,0148773
EXP (Experience)	0,0008949

Table 4.8 shows the results that the *p-value* for the *education* and *experience* variables has a value less than the significance level (0.05) so that it can be decided that both variables have a significant influence on the company's ESG strategy

score. As for one other variable, namely *gender*, has a *p-value* that is more than the significance level so it can be concluded that the *gender variable* does not have a significant influence on the ESG strategy score model.

The best model produced is also a REM model with 2 significant predictor variables which are EDU and EXP.

Table 4.9 REM Parameter Estimation with variable selection

Variables	Parameter Estimator	P-Value
Intercept	44,3506	$< 2{,}2 \times 10^{-16}$
EDU (Education)	3,2118	0,016115
EXP (Experience)	-4,0024	0,000677

The final equation model for the ESG strategy score is as follows.

$$ESG = 44{,}3506 + 3{,}2118EDU - 4{,}0024EXP + \lambda_i$$

Through the final equation model, it can be interpreted that every CEO who has a master's education or above will increase the ESG strategy score by 3.2118 and every CEO who has experience serving in other companies will actually reduce the ESG strategy score by holding other parameters constant.

An example of the equation that can be made for the company WTON is as follows.

$$ESG_{WTON} = 44{,}3506 + 3{,}2118EDU - 4{,}0024EXP + 12{,}22718$$

Assumption Test

After obtaining the best model with all significant predictor variables, the assumptions of heteroscedasticity, autocorrelation, normality, and multicollinearity are tested. In this study, the heteroscedasticity and autocorrelation assumption tests do not need to be carried out because the best model of the data used is the REM model, then for the normality test in this study it is assumed that the data follows a normal distribution. Furthermore, multicollinearity is checked by looking for the VIF value. The results of the detailed VIF value can be written in table 4.11 below.

Table 4.11 VIF panel model with Variable Selection

Year	$VIF_{EDU-EXP}$
2018	1,000011
2019	1,000024
2020	1,001277
2021	1,000104
2022	1,000001
2018-2022	1,000049

Table 4.11 shows that the VIF value overall or per year does not exceed 10, so it can be concluded that there are no multicollinearity symptoms in the model.

Discussion

Effect of CEO Gender on Environmental, Social, Governance (ESG) strategy score

The results of the regression analysis show that the gender role of the CEO has a positive influence on the Environmental, Social and Governance (ESG) aspects of the company. Nevertheless, the resulting impact cannot be called statistically significant. This is reflected in the probability value recorded in the analysis, which exceeds the predetermined significance level limit, so the hypothesis cannot be rejected. This finding is a point of contrast with some previous reference studies, such as those mentioned in the works of Aabo et al. (2023), Dempere et al. (2023), Romano et al. (2020), and Yadav et al. (2023). Despite the difference in results, this study highlights the similarity with previous studies in terms of the generally positive value of the gender constant. However, it is important to note that while the constant values show a positive trend, they do not reach the expected level of significance, possibly due to the relatively small magnitude of the constant values. This confirms the need for further research to deeply understand the relationship between CEO gender and corporate ESG performance and what factors might influence it.

Effect of CEO Education on Environmental, Social, Governance (ESG) strategy score

The results of the regression analysis conducted reveal that the CEO's education level has a significant impact on the Environmental, Social and Governance (ESG) aspects of the company's operations. This finding is supported by the fact that the probability values recorded in the regression analysis show significance levels that are well below the set limits, resulting in the acceptance of the proposed hypothesis. In this context, it is important to recognize that CEO education level is not only a predictive factor, but also plays a substantial role in directing corporate policies and practices related to sustainability. As such, the CEO's education level not only reflects the individual's ability to effectively manage the company's operations, but is also an indicator of the company's commitment to sustainable ESG principles. This finding is consistent with several previous studies that have been conducted in this area. For instance, Farrakhova's (2022) research specifically highlights the importance of CEO education in the context of risk management and sustainable financial performance. Meanwhile, Lazareva's (2022) study emphasizes that the CEO's education level can influence the company's strategic decisions related to social and environmental responsibility. The study of Oehoedoe et al. (2023) also supports this finding by showing that CEOs who have higher education tend to be more aware of the environmental and social challenges facing companies, and therefore, tend to adopt more sustainable practices. Thus, an in-depth understanding of the relationship between CEO education level and corporate ESG performance is not only important for shaping sustainable business strategies, but also for strengthening commitment to social and environmental responsibility in an increasingly sustainable global economy.

Effect of CEO Experience on Environmental, Social, Governance (ESG) strategy score

The regression analysis results indicate that CEO experience, as measured by previous experience in serving in other companies, shows a significant negative

impact. This finding is surprising as it is not in line with the proposed hypothesis, as well as contrary to the findings revealed in the previous study conducted by Liu et al. (2023). This discrepancy suggests that there is complexity in the relationship between CEO experience and a firm's Environmental, Social, and Governance (ESG) performance. It should be noted that this finding can be accepted on the grounds that few previous studies have specifically investigated the effect of CEO experience in terms of experience serving in other companies. Previous research, such as that conducted by Liu et al. (2023), did show positive and significant results, but focused on CEO experience in relation to the presence or absence of overseas tenure. This highlights the need for more research that deepens the understanding of the role of CEO experience in a broader context, including experience in different types of firms, both domestic and international. By understanding the larger impact of CEO experience, companies can better prepare for the complex challenges in the ESG domain, as well as strengthen strategies to achieve their sustainability goals.

Managerial Implications

Environmental, Social, and Governance (ESG) management is increasingly becoming a key focus for companies in an increasingly sustainable business era. The analysis revealing the influence of CEO gender, education, and experience on ESG strategy scores highlights the complexity of managerial decision-making. Although the influence of CEO gender shows a positive trend towards ESG strategy scores, the statistical significance that is not achieved suggests that other factors need to be seriously considered in ESG policy determination. Therefore, managers need to pay attention to the firm's unique context and industry characteristics when integrating the CEO gender factor into their sustainability strategies. In addition, the finding that CEO education level has a significant impact confirms the importance of investing in knowledge-based leadership development and understanding of the environmental and social challenges facing companies. CEOs with a solid educational background tend to have a deeper understanding of the importance of ESG in the modern business context, which can help in sustainable decision-making. However, it is important to keep in mind that CEO experience, while considered a valuable asset in the management of the company, may yield unexpected results with regard to ESG performance. Therefore, managers need to carefully consider the ways in which the CEO's experience inside and outside the company affects their ESG policies and practices. By understanding the implications of CEO gender, education and experience in the context of ESG, companies can develop more holistic and integrated strategies to strengthen their sustainability performance while still adhering to the principles of social and environmental responsibility. This emphasizes the need for a data- and context-driven approach to managerial decision-making that integrates key factors such as CEO gender, education, and experience in an effort to improve corporate ESG performance.

CONCLUSION

From the results and discussion it can be concluded that this study aims to examine the effect of CEO characteristics (Gender, Education, and Experience) on the Environmental, Social, & Governance (ESG) strategy score in non-financial

companies listed on the Indonesia Stock Exchange from 2018 to 2022. Of the 825 companies selected through purposive sampling, 365 research samples were obtained with 73 companies. Analysis using panel data regression with the Random Effect Model (REM) model shows that CEO gender has an insignificant positive effect on ESG scores, CEO education has a significant positive effect, and CEO experience has a significant negative effect. Based on these findings, future research is recommended to explore the types of education that contribute more to ESG, as well as the relationship of CEO gender with ESG, and the challenges in implementing ESG policies in large companies. For companies, it is recommended to develop CEO skills and knowledge related to ESG and identify effective ESG strategies. The government is advised to create regulations that encourage good ESG practices for companies of all sizes.

REFERENCES

Aabo, T., & Giorici, I. C. (2023). Do female CEOs matter for ESG scores? Global Finance Journal, 56. https://doi.org/10.1016/j.gfj.2022.100722

Agarwala, N., Pareek, R., & Sahu, T. N. (2023). Do firm attributes impact CSR participation? Evidence from a developing economy. International Journal of Emerging Markets. https://doi.org/10.1108/IJOEM-05-2022-0876

Al Amosh, H., & Khatib, S. (2023). ESG performance in the time of COVID-19 pandemic: cross-country evidence. Environmental Science and Pollution Research, 30(14), 39978–39993. https://doi.org/10.1007/S11356-022-25050-W/TABLES/11

Asimakopoulos, P., Asimakopoulos, S., & Li, X. (2023). The combined effects of economic policy uncertainty and environmental, social, and governance ratings on leverage. European Journal of Finance. https://doi.org/10.1080/1351847X.2022.2150559

Bear, S., Rahman, N., & Post, C. (2010). The Impact of Board Diversity and Gender Composition on Corporate Social Responsibility and Firm Reputation. Journal of Business Ethics, 97(2), 207–221. https://doi.org/10.1007/S10551-010-0505-2

CFA Institute. (2019). ESG INTEGRATION IN ASIA PACIFIC: MARKETS, PRACTICES, AND DATA. www.cfainstitute.org.

Chen, R. (2023). Impact of ESG Score on Firms' Performance Based on Empirical Examination of the Chinese Stock Market. In BCP Business & Management EMFRM (Vol. 2022).

Christov-Moore, L., Simpson, E. A., Coudé, G., Grigaityte, K., Iacoboni, M., & Ferrari, P. F. (2014). Empathy: Gender effects in brain and behavior. Neuroscience & Biobehavioral Reviews, 46(P4), 604–627. https://doi.org/10.1016/J.NEUBIOREV.2014.09.001

Chua, M., Ab Razak, N. H., Nassir, A. M., & Yahya, M. H. (2022). Dynamic capital structure in Indonesia: Does the education and experience of CEOs matter? Asia Pacific Management Review, 27(1), 58–68. https://doi.org/10.1016/j.apmrv.2021.05.003

Cucari, N., Esposito De Falco, S., & Orlando, B. (2018). Diversity of Board of

Directors and Environmental Social Governance: Evidence from Italian Listed Companies. Corporate Social Responsibility and Environmental Management, 25(3), 250–266. https://doi.org/10.1002/csr.1452

Dempere, J., & Abdalla, S. (2023). The Impact of Women's Empowerment on the Corporate Environmental, Social, and Governance (ESG) Disclosure. Sustainability (Switzerland), 15(10). https://doi.org/10.3390/su15108173

Donald C. Hambrick, & Phyllis A. Mason. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. The Academy of Management Review, 9(2).

Farrakhova, I. (2022). How CEO Affects ESG and the Financial Performance of Companies. Journal of Corporate Finance Research, 16(4), 93–118. https://doi.org/10.17323/j.jcfr.2073-0438.16.4.2022.93-118

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

Ghozali I. (2016). Aplikasi Analisis Multivariete Dengan Program IBM SPSS 23. Semarang: Badan Penerbit Universitas Diponegoro, 8.

Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. Journal of Corporate Finance, 66, 101889. https://doi.org/10.1016/J.JCORPFIN.2021.101889

Gov UK. (2017). Growing a Culture of Social Impact Investing in the UK.

Guedhami, O., Louton, D., Saraoglu, H., & Zheng, Y. (2022). ESG Investing: A Decision-Making Paradox? The Journal of Impact and ESG Investing, 3(1), 7–30. https://doi.org/10.3905/JESG.2022.1.054

Gujarati. (2010). Basic Econometrics. 4th Edition. McGraw-Hill Companies.

Huang, K. (2013). The Impact of CEO Characteristics on Corporate Sustainable Development. Corporate Social Responsibility and Environmental Management, 20(4), 234–244. https://doi.org/10.1002/CSR.1295

Jonathan A. McGowan. (2022). The Trouble with Tibble: Environmental, Social, and Governance (ESG) and Fiduciary Duty. University of Chicago Law School.

Khalil, M. A., Khalil, R., & Khalil, M. K. (2022). Environmental, social and governance (ESG) - augmented investments in innovation and firms' value: a fixed-effects panel regression of Asian economies. China Finance Review International, ahead-of-print(ahead-of-print). https://doi.org/10.1108/CFRI-05-2022-0067/FULL/XML

Khan, W. A., & Vieito, J. P. (2013). Ceo gender and firm performance. Journal of Economics and Business, 67, 55–66. https://doi.org/10.1016/j.jeconbus.2013.01.003

Kutzschbach, J., Peetz, I., Tanikulova, P., & Willers, K. (2020). How CEO's education impacts CSR performance - An empirical analysis of publicly listed companies in Germany. In Management Studies (Vol. 10, Issue 3). www.managementstudies.org

Kyle Peterdy. (2022a). CEO (Chief Executive Officcer). Corporate Finance Institute.

Kyle Peterdy. (2022b). ESG (Environmental, Social, & Governance). Corporate

Finance Institute.
Laakso, E. (2010). Stock market participation and household characteristics in Europe. Aalto University.
Lazareva, E. (2022). Do CEO Behavior Biases and Personal Traits Influence ESG Performance? The Evidence from Emerging Capital Market of Russia. Journal of Corporate Finance Research, 16(4). https://doi.org/10.17323/j
Lewis, B. W., Walls, J. L., & Dowell, G. W. S. (2014). Difference in degrees: CEO characteristics and firm environmental disclosure. Strategic Management Journal, 35(5), 712–722. https://doi.org/10.1002/SMJ.2127
Li, T. T., Wang, K., Sueyoshi, T., & Wang, D. D. (2021). ESG: Research Progress and Future Prospects. Sustainability 2021, Vol. 13, Page 11663, 13(21), 11663. https://doi.org/10.3390/SU132111663
Liu, Y., Zhang, F., & Zhang, H. (2023). CEO foreign experience and corporate environmental, social, and governance (ESG) performance. Business Strategy and the Environment.
Manner, M. H. (2010). The Impact of CEO Characteristics on Corporate Social Performance. Journal of Business Ethics. https://doi.org/10.1007/s10551-010-0626-7
Mohan, N., & Ruggiero, J. (2003). Compensation differences between male and female CEOs for publicly traded firms: A nonparametric analysis. Journal of the Operational Research Society, 54(12), 1242–1248. https://doi.org/10.1057/PALGRAVE.JORS.2601639
Oehoedoe, M. S., Minanurohman, A., & Fitriani, N. (2023). CEOs Accounting Background and ESG Disclosure: Empirical Evidence of Indonesian Listed Companies. Jurnal Dinamika Akuntansi Dan Bisnis, 10(1), 81–98. https://doi.org/10.24815/jdab.v10i1.28558
PWC. (2021). Indonesia's Sustainable Transformation.
PwC. (2022). Investasi institusi yang berfokus pada ESG: Laporan PwC.
Refinitiv. (2022). Environmental, Social and Governance (ESG) Scores from Refinitiv - May 2022..