Managerial Ability and ESG Performance: A Panel Data Analysis of Non-Financial Companies on The Indonesia Stock Exchange (2018-2021)

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Abstract
The rising implementation of Environmental, Social, & Governance (ESG) practices by companies indicates a growing commitment to responsible operations. The surge in assets allocated to ESG-focused ETFs is evident, as global investments have grown to $391 billion by 2021, a substantial increase from a mere $5 billion in 2006. Furthermore, Indonesia has witnessed a substantial surge in the number of investors who are actively engaged with companies that comply with ESG criteria. The efficacy of implementing ESG practices is intricately linked to the proficiency and expertise of managers, particularly in their decision-making and disclosure strategies. This study employed panel data regression methods to examine data from 825 non-financial companies that were publicly traded on the Indonesia Stock Exchange between 2018 and 2021. The insights were acquired utilizing the Fixed Effect Model methodology. The results indicate that the proficiency of managers does not exert a noteworthy influence on the ESG performance of companies that prioritize short-term financial benefits and exhibit limited understanding of ESG concerns, especially in sectors other than energy. Hence, it is imperative to foster effective leadership to steer companies towards holistic and sustainable strategies that transcend immediate gains, while prioritizing enduring impact and societal responsibility.

Keywords**:** *Managerial Ability, Environmental, Social, & Governance (ESG), Indonesia Stock Exchange, Regression.*

Abstrak
Meningkatnya penerapan praktik Lingkungan, Sosial, & Tata Kelola (ESG) oleh perusahaan menunjukkan semakin besarnya komitmen terhadap operasi yang bertanggung jawab. Lonjakan aset yang dialokasikan untuk ETF yang berfokus pada ESG terlihat jelas, seiring dengan pertumbuhan

investasi global menjadi $391 miliar pada tahun 2021, peningkatan yang signifikan dari hanya $5 miliar pada tahun 2006. Selain itu, Indonesia telah menyaksikan lonjakan besar dalam jumlah investor yang terlibat secara aktif dengan perusahaan yang mematuhi kriteria ESG. Kemanjuran penerapan praktik ESG sangat terkait dengan kemahiran dan keahlian para manajer, khususnya dalam pengambilan keputusan dan strategi pengungkapan informasi. Penelitian ini menggunakan metode regresi data panel untuk menguji data dari 825 perusahaan non-keuangan yang terdaftar di Bursa Efek Indonesia antara tahun 2018 hingga 2021. Insight diperoleh dengan menggunakan metodologi Fixed Effect Model. Hasilnya menunjukkan bahwa kemahiran manajer tidak memberikan pengaruh yang signifikan terhadap kinerja ESG di perusahaan-perusahaan yang memprioritaskan manfaat finansial jangka pendek dan menunjukkan pemahaman yang terbatas mengenai permasalahan ESG, terutama di sektor selain energi. Oleh karena itu, sangat penting untuk menumbuhkan kepemimpinan yang efektif untuk mengarahkan perusahaan menuju strategi yang holistik dan berkelanjutan yang tidak hanya sekedar keuntungan jangka pendek, namun tetap memprioritaskan dampak jangka panjang dan tanggung jawab sosial.

Keywords**:** *Kemampuan Manajerial, Environmental, Social, & Governance (ESG), Bursa Efek Indonesia, Regresi.*

1. Introduction

ESG factors have become essential in corporate strategy and investment decision-making during the era of globalization. ESG refers to a company's dedication to conducting its business in a responsible and sustainable manner, taking into account the effects on the environment, society, and its stakeholders. According to Clark et al. (2014), ESG refers to important factors that incorporate environmental, social, and governance aspects into investment choices. These factors are used to assess the quality of management, reduce long-term risks, and potentially create value for shareholders.

There is a growing trend in the global business world towards prioritizing sustainability and environmental responsibility, which is leading to a significant increase in investments that focus on ESG factors. The Index Industry Association's survey conducted in 2023 reveals a projected 76% growth in ESG-related bond assets and a 47% increase in commodity investments for the year 2022. Moreover, it is projected that the total value of assets managed, with a particular focus on ESG factors, will increase from US$184 trillion in 2021 to an estimated US$339 trillion by 2026. These projections highlight the growing significance of ESG considerations for global investors and fund managers, who are increasingly acknowledging the lasting advantages of sustainable investment practices.

The increase in desire for sustainable investment options, specifically Exchange-Traded Funds (ETFs), is primarily influenced by developed markets in Europe and the United States.

It is projected that the allocation of assets in this sector will reach $403 billion by November 2022. The trend towards ESG investment is not confined to Western markets; it is also significantly influencing the business landscape in Indonesia. Fan Cheuk Wan from HSBC Global Private Banking predicts that there will be a substantial rise in ESG investments in Indonesia in 2022 (Yogatama, 2022). This is due to an increasing corporate recognition of environmental and sustainability concerns.

In 2021, the Indonesian Stock Exchange (2022) observed a significant increase in the quantity of ESG products, with 15 new offerings compared to only one in the previous period. The Assets under Management (AuM) for these products also witnessed significant expansion, surging to IDR 23 trillion in 2021 from a meager IDR 38 billion previously. A survey of 595 Indonesian investors found that 66.1% of them owned shares in companies that prioritize ESG practices (Rachman, 2022). These figures demonstrate the growing importance of ESG factors, not only in terms of investment, but also in improving the overall performance of companies.

Companies that prioritize ESG factors generally demonstrate better operational performance, achieve higher returns, and experience lower risks specific to their company. Disregarding ESG factors can lead to significant risks and an unsustainable business model as it hampers the availability of funding for company projects (Ziolo et al., 2022). Nevertheless, in order to attain these results, it is crucial for companies to develop strong managerial skills. Managerial ability, as per the definition provided by Kaplan et al. (2008), refers to the amalgamation of skills, knowledge, and experience that empowers managers to make decisions that improve organizational performance. Proficient managerial abilities are essential for involving stakeholders, especially senior executives, in the decision-making procedures concerning ESG issues.

The study conducted by Welch and Yoon (2022) provides evidence that managerial competence has a positive impact on ESG decision-making. Moreover, research has demonstrated that companies that possess elevated ESG rankings and exhibit robust managerial capabilities tend to outperform their counterparts with lower rankings in both areas, resulting in superior future stock returns (Tan et al, 2023; Welch & Yoon, 2023). These findings emphasize the crucial importance of competent management in effectively incorporating ESG factors into corporate strategy, thereby improving long-term sustainability and value generation.

Therefore, this study aims to investigate the impact of managerial competence on the adoption of environmental, social, and governance (ESG) practices in companies listed on the Indonesia Stock Exchange from 2018 to 2021. Gaining a deeper understanding of the role of management in facilitating effective and sustainable ESG implementation is crucial.

1.1 Assessment of Managerial Competence and Integration of Environmental, Social, and Governance (ESG) Factors

The effective integration of ESG criteria into corporate strategies is significantly influenced by managerial ability, as per Welch and Yoon (2022). Proficient managers are equipped with the requisite skills and knowledge to navigate the complexities of their organizations and implement strategies that align with environmental, social, and governance objectives. In light of the increasing pressure from stakeholders, it is imperative that companies align with sustainable practices. Demerjian et al. (2013) conducted research that supports this perspective, suggesting that managers with higher levels of competence are more adept at making well-informed decisions that are beneficial to the company and its broader social responsibilities.

Lee et al. (2023) discovered additional proof of the connection between managerial competence and ESG practices. Their research revealed that as managerial ability improves, companies demonstrate a corresponding rise in their dedication to socially responsible practices. This correlation also applies to a decrease in detrimental behaviours associated with societal, environmental, and economic factors. These findings emphasize the importance of managerial competence in promoting corporate responsibility and sustainability.

1.2 Assessing Managerial Competence and Implementation of Environmental, Social, and Governance (ESG) Practices

Assessing managerial ability is a challenging endeavour that necessitates the use of comprehensive evaluation instruments. The MA-Score, as proposed by Demerjian et al. (2013), is a metric that evaluates managerial efficiency by comparing output indicators, such as sales, with input resources. Efficient managerial ability is reflected by a high output compared to input, while lower outputs indicate less effective management. The scoring system offers a numerical foundation for assessing the effectiveness of managers and their influence on organizational results.

Simultaneously, the assessment of ESG integration within companies can be measured through the utilization of the ESG Refinitiv Score. This score combines multiple indicators and sub-indicators that evaluate a company's ESG performance. Investors are increasingly utilizing this score to evaluate the degree to which companies are implementing ESG principles in their operations and governance. The correlation between managerial competence and ESG scores indicates that companies led by more skilled managers are more likely to fulfil the increasing requirements for sustainable and ethical business practices. Building on the literature, the following research hypothesis is proposed:

H1: Managerial ability positively affects the Environmental, Social, & Governance (ESG) performance of companies listed on the Indonesia Stock Exchange (IDX).

2. Method

2.1 Sampling and Data Collection

The study sample consists of 825 non-financial companies that were publicly traded on the Indonesia Stock Exchange from 2018 to 2021. The pattern of ESG implementation in Indonesia was analyzed by selecting IDX-listed companies as samples. Purposive sampling is implemented, which is predicated on predetermined criteria:

1. A representative sample of 56 companies was selected from a population of 825 non-financial enterprises listed on the Indonesia Stock Exchange.

2. Organizations that have disclosed annual financial statements for the years 2018 through 2021.
3. Organizations that have issued ESG score reports from Refinitiv between 2018 and 2021.

2.2 Video and Documentation Capture

This study will utilize panel data regression analysis with the MP Stata 15 software to quantify the correlation between the dependent and independent variables. The primary objective of this analysis is to estimate the regression coefficients of the independent variables. The research hypotheses will be tested using model equations. The following is the mathematical equation utilized in this research:

$$ESG = \beta 0 + \beta 1ABLTi,t + \beta 2Sizei,t + \beta 3ROEi,t + ei,t \quad (1)$$

Table 1. Empirical Model Code

Code	Description	Code	Description
ESG	ESG Company	*ABLT*	Managerial Ability
Size	Firm Size	*ROE*	*Return on Equity*
β	Variable Coefficient	$e_{i,t}$	Random (error)

The aim of this study is to test hypotheses by using a single regression model to measure the influence of managerial ability on companies' environmental, social, and governance (ESG) performance. The panel data regression technique is employed to merge cross-sectional and time series data from companies listed on the Indonesia Stock Exchange (IDX) across the period from 2018 to 2021. The sample consists of 56 non-financial companies that have published both Refinitiv's annual financial reports and ESG score reports. This approach allows for the investigation to produce more robust and comprehensive findings, while also considering the variability in the data

3. Result and Discussion

3.1 Classical Assumption Test

Classical assumption tests, such as tests for multicollinearity, heteroscedasticity, and autocorrelation, are employed to confirm the suitability, absence of bias, and coherence of the regression equation. Below is a detailed account of each test outcome.

Table 2. Multicollinearity Test

No	Independent Variable	VIF	Tolerance
1	ABLT	1,04	0,945314
2	SIZE	1,02	0,961754
3	ROE	1,06	0,982238

The regression equation of the study does not exhibit any signs of multicollinearity, as the Variance Inflation Factor (VIF) values for both the independent and control variables are less than 10, and the tolerance values (1/VIF) surpass 0.10. This suggests that the regression model employed in the study does not exhibit multicollinearity.

Table 3. Heteroscedasticity Test

Heteroscedasticity test result	Description
P = 0,0000	Heteroscedasticity

The Wald test is employed to identify indications of heteroscedasticity in regression data, thereby ensuring homoscedasticity. The study's findings, utilizing MP Stata 15, reveal a probability value greater than the chi-square value of 0.0000, which is lower than the 5% significance level. This indicates the existence of heteroscedasticity symptoms in the data.

Table 4. Autocorrelation Test

Autocorrelation test result	Description
P = 0,0000	Autocorrelation

The Wooldridge test is employed to assess the correlation between data and time. The test results in a probability value of 0.0000, which is lower than the 5% significance level. This indicates that the data used in this study shows autocorrelation, as the probability is less than 0.05

3.2 Hypothesis Test

Within the framework of hypothesis testing, the classical assumption tests play a crucial role in verifying that the regression model employed is the most optimal and unbiased estimator, known as the Best Linear Unbiased Estimator (BLUE). However, if assumptions like homoscedasticity and absence of autocorrelation are not met, the results can be skewed and less effective. Gujarati and Porter (2009) suggest employing the Generalized Least Squares (GLS) technique to tackle concerns such as heteroscedasticity and autocorrelation. By utilizing the GLS method, we can acquire coefficient estimates that are more dependable and significance tests that are valid.

Table 5. Hypothesis Test Result

No	Variable	Coefficient	P-Value	Description	Hypothesis
1	ABLT	-14.65259	0.162	Negative; not significant	H1 Reject
2	SIZE	-2.034128	0.000	Negative; significant	H1 Accept
3	ROE	1.650615	0.599	Positive; not significant	H1 Reject

1. The coefficient for Managerial Ability (ABLT) is -14.65259, with a p-value of 0.162, as determined by the results of the hypothesis testing. This implies an inverse relationship between the dependent variable and managerial competence. Nevertheless, the hypothesis (H1) that managerial ability significantly influences the ESG performance of companies

listed on the Indonesia Stock Exchange (IDX) is rejected due to the absence of statistical significance, as evidenced by the p-value exceeding the 0.05 threshold in this case.

These results contradict previous research that suggests that managerial ability has a positive impact on the implementation of ESG (Zahid et al., 2024; Welch & Yoon, 2022; Lee et al., 2023; Gaganis et al., 2023). This disparity may be attributed to a variety of factors. The sectoral focus of the sampled companies is one factor. The energy sector companies in this study exhibited the highest average ESG score , which is significantly higher than the overall average ESG score for all companies in the sample. The energy sector's emphasis on achieving high ESG ratings to improve public and investor perception is evidenced by this higher score. Investment decisions are increasingly influenced by the perception that companies with strong ESG performance in the energy sector are more socially and environmentally responsible, which in turn enhances their reputation and credibility. This is consistent with the idea that organizations that implement robust ESG policies are perceived as more sustainable in the long term (Jin & Lei, 2023).

The relatively low implementation of ESG practices by companies in Indonesia is another significant factor (Jeanice & Kim, 2023). This low level of implementation can be attributed to the managerial challenges that companies encounter when addressing financial and market pressures. In order to remain competitive, numerous organizations in developing nations, such as Indonesia, prioritize short-term financial objectives, frequently at the expense of long-term ESG expectations. The reason for this is that ESG practices necessitate substantial and long-term investments, which may not yield immediate financial returns, rendering them less appealing to companies. Furthermore, the demand for ESG practices is restricted by investors and customers, who are more price-sensitive. As a result, organizations prioritize short-term profitability and market share over long-term ESG considerations (Khan, Naeem, et al., 2022).

2. The coefficient of the variable representing company size is -2.034128, which is statistically significant with a p-value of 0.000. This negative and statistically significant correlation suggests that ESG performance scores are generally lower for larger companies, thereby supporting hypothesis (H1) that company size significantly influences ESG performance. These results are in accordance with prior research, including Clark et al. (2014) and Lee et al. (2023), which indicate that larger organizations may encounter challenges in consistently implementing ESG practices across their extensive operations, resulting in a decrease in overall ESG performance. The complexity of larger company sizes, such as their broad operational scope, diverse stakeholders, and intricate organizational structures, can impede the effective integration of ESG. Consequently, this challenge arises. Furthermore, investments in ESG-related infrastructure and training may be further complicated by resource constraints, such as financial and human capital constraints. In contrast, smaller organizations are generally more adaptable and agile in their implementation of ESG practices. However, the correlation between ESG performance and company size is not always uniform and may be influenced by industry-specific factors, regulatory environments, and organizational culture. Agarwala et al.

(2023) have observed that larger organizations encounter more obstacles when attempting to integrate ESG.

3. The analysis indicates a positive but statistically insignificant relationship between environmental, social, and governance (ESG) performance and the Return on Equity (ROE) coefficient, which is 1.650615, with an associated p-value of 0.599. The data does not support the hypothesis (H1), which posits that ROE has a substantial impact on ESG performance. Consequently, the hypothesis is dismissed. The results of this study indicate that, despite the existence of a positive correlation between profitability (as measured by ROE) and ESG outcomes, the effect size is insufficient to achieve statistical significance within the established parameters. This conclusion is in accordance with the findings of Demerjian et al. (2013) and Nguyen et al. (2022), who emphasize the inherent complexity of sustainability practices. They observe that financial performance indicators, such as ROE, do not consistently correspond with ESG outcomes as a result of the multifaceted nature of these practices.

   Additionally, the literature supports the existence of negative, insignificant, or even contentious relationships between ESG performance and financial metrics, particularly during periods of economic crisis and uncertainty (Tampakoudis et al., 2021; Wasiuzzaman et al., 2022). The perceived advantages of ESG initiatives on financial performance may be diminished during these periods, thereby reducing their influence. Furthermore, the application of moderating variables can further obscure the relationship between financial performance and ESG, thereby complicating the interpretation of empirical findings and challenging the generalizability of results across various contexts.

4. Conclusion

This study explored the relationship between managerial ability and the implementation of Environmental, Social, and Governance (ESG) practices among non-financial companies listed on the Indonesia Stock Exchange (IDX) from 2018 to 2021. The findings, derived from panel data regression, indicate that managerial ability does not significantly influence ESG performance, particularly in companies focused on short-term financial gains and with limited ESG understanding. This suggests that the impact of managerial competence on ESG outcomes may be overshadowed by other factors, such as market conditions and regulatory environments. However, the study is limited by its focus on non-financial firms, the exclusion of other potentially influential variables, and the relatively short time frame. Future research should expand the scope to include financial sectors, incorporate a broader range of variables, and examine long-term trends in ESG practices. Additionally, exploring the unique challenges in emerging markets like Indonesia could provide valuable insights for enhancing sustainable business practices.

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