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When Profit Outweighs Sustainability: Empirical Evidence from ESG and Firm Value in Indonesia Energy Industry

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Abstrak. *Penelitian ini bertujuan untuk menganalisis peran keberlanjutan dan profitabilitas dalam memengaruhi nilai perusahaan pada sektor energi yang terdaftar di Bursa Efek Indonesia (BEI) selama periode 2022–2024. Kinerja keberlanjutan diukur menggunakan skor pengungkapan Environmental, Social, and Governance (ESG), sedangkan profitabilitas diproksikan dengan Return on Assets (ROA). Nilai perusahaan diukur menggunakan rasio Tobin's Q. Sampel penelitian terdiri dari 32 perusahaan energi yang dipilih melalui metode purposive sampling. Analisis data dilakukan menggunakan regresi data panel dengan pendekatan Fixed Effect Model (FEM) serta metode Generalized Least Squares (GLS) dengan pembobotan cross-section untuk mengatasi potensi heteroskedastisitas. Hasil penelitian menunjukkan bahwa pengungkapan ESG tidak berpengaruh signifikan terhadap nilai perusahaan, sementara profitabilitas memiliki pengaruh positif dan signifikan. Secara simultan, ESG dan profitabilitas terbukti berpengaruh signifikan terhadap nilai perusahaan. Temuan ini mengindikasikan bahwa investor di sektor energi Indonesia masih lebih berorientasi pada profitabilitas sebagai faktor utama penentu nilai perusahaan, sedangkan kinerja keberlanjutan belum menjadi fokus utama dalam pengambilan keputusan investasi. Hasil penelitian ini memberikan kontribusi empiris terhadap literatur mengenai integrasi faktor ESG dalam penilaian perusahaan, khususnya pada konteks pasar berkembang seperti Indonesia.*

Kata kunci: *ESG; Profitability; Firm Value; Energy Sector.*

Abstract. *This study aims to examine the role of sustainability and profitability in influencing firm value within Indonesia's energy sector listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. Sustainability performance is measured using the Environmental, Social, and Governance (ESG) disclosure score, while profitability is represented by the Return on Assets (ROA). Firm value is proxied by Tobin's Q ratio. The research sample consists of 32 energy companies selected using a purposive sampling method. Data analysis is conducted using panel data regression with the Fixed Effect Model (FEM) and the Generalized Least Squares (GLS) approach with cross-section weighting to address potential heteroskedasticity issues. The results reveal that ESG disclosure has no significant effect on firm value, whereas profitability exerts a positive and significant influence. Simultaneously, ESG and profitability jointly have a significant impact on firm value. These findings indicate that investors in Indonesia's energy sector remain more focused on profitability as the primary determinant of firm value, while sustainability performance has yet to become a key consideration in investment decisions. This study contributes to the ongoing discussion on the integration of ESG factors into firm valuation, particularly within emerging market contexts such as Indonesia.*

Keywords: *ESG; Profitability; Firm Value; Energy Sector.*

Introduction

In the past five years, Indonesia's capital market has demonstrated significant variation in performance across different sectors. Data from the Indonesia Stock Exchange (IDX, 2024), as shown in Figure 1, reveals that the energy sector (IDXENERGY) achieved a substantial growth rate of 226.51%, far exceeding the 12.39% increase of the Jakarta Composite Index (JCI) during the same period. This remarkable growth highlights the energy sector's crucial role in driving the overall increase in market capitalization (firm value) within Indonesia's stock market.

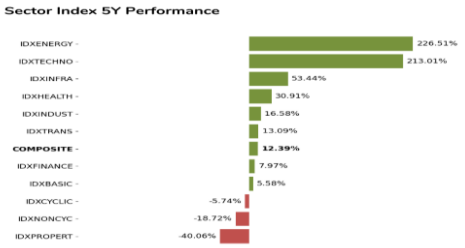

Figure 1. Sectoral Index Growth on the Indonesia Stock Exchange

The integration of Environmental, Social, and Governance (ESG) factors into corporate strategy is increasingly recognized as vital for enhancing corporate value. Research shows that effective ESG practices not only improve financial performance but also strengthen corporate reputation and investor confidence, fostering sustainable growth. However, studies examining the link between ESG practices and firm value reveal notable inconsistencies, particularly in how companies perform across various ESG components. Some studies report a positive relationship between ESG disclosure and firm value (Li *et al.*, 2025; Hamdouni, 2025; Tiranda, 2025; Wang, 2025), while others find insignificant effects, particularly in emerging markets (Xaviera, 2023; Wahyono, 2024; Maccarrone, 2023; Marsuki, 2024). These discrepancies may arise from sector-specific characteristics, investor awareness, and variations in the depth of ESG reporting. This highlights a research gap, as empirical evidence on the role of ESG in Indonesia's energy sector remains limited, despite the sector's significant contribution to the national economy and increasing pressures to adopt sustainable practices, particularly in the context of energy transition and stricter sustainability regulations in Indonesia. In addition to ESG, a company's profitability also plays a crucial role in determining its value. Profitability reflects a firm's ability to generate profits and manage its operations effectively. A company's capacity to produce profits enhances its market value, as investors often base their future business projections on profitability metrics (Hidayat *et al.*, 2025). A combination of strong financial performance and solid sustainability practices is thought to enhance firm value by reducing risks and broadening access to capital (OECD, 2023; KPMG, 2023).

Research Methodology

This study employs a quantitative explanatory research design to analyze the impact of sustainability disclosure and profitability on firm value within the energy sector listed on the Indonesia Stock Exchange (IDX) during the period 2022–2024. Secondary data for the study were sourced from annual financial and sustainability reports published by the respective companies on the IDX official website (www.idx.co.id). The research population consists of all energy companies listed on the IDX during this period. A purposive sampling technique was applied with the following inclusion criteria:

1) Companies listed in the energy sector according to IDX classification.
2) Companies that consistently published annual and sustainability reports during the 2022–2024 period.
3) Companies with complete data required for the measurement of variables (ESG disclosure, ROA, and Tobin's Q).
4) Companies that did not undergo delisting or corporate restructuring during the study period.

Based on these criteria, a total of 32 companies were selected as the research sample. The key variables examined in this study are as follows:

Sustainability Disclosure (ESG) — X_1
Sustainability disclosure reflects the level of transparency in reporting Environmental, Social, and Governance (ESG) performance.

ESG disclosure is quantified using 117 indicators based on the Global Reporting Initiative (GRI) Standards (2021), covering environmental, social, and governance dimensions. The ESG disclosure index is calculated as:

$$ESG = \frac{\text{Sum of company's disclosed items}}{\text{Total number of GRI disclosure items}}$$

Profitability (ROA) — X_2

Profitability is measured by Return on Assets (ROA), which indicates a company's ability to generate net income relative to its total assets. The formula for ROA is:

$$ROA = \frac{\text{Net Income After Tax}}{\text{Total Assets}}$$

Firm Value (Tobin's Q) — Y

Firm value is assessed using the Tobin's Q ratio, which reflects the market's perception of a company's future growth prospects and performance potential. The formula for Tobin's Q is:

$$Tobin'sQ = \frac{MVE + D}{TA}$$

Where:
MVE = Market Value of Equity (calculated as the closing stock price multiplied by the number of outstanding shares)
D = Total Debt (both short-term and long-term debt)
TA = Total Asset

Results and Discussion

Results

The first step in determining the appropriate estimation model for panel data analysis involves conducting the Chow Test (also known as the Redundant Fixed Effect Test). This test aims to assess whether the Common Effect Model (CEM) or the Fixed Effect Model (FEM) is more suitable for the analysis. The results of the Chow Test are presented in the following table:

Table 1. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	58.171026	(31,62)	0.0000
Cross-section Chi-square	326.788201	31	0.0000

The p-values from both the Cross-section F and Cross-section Chi-square tests are 0.0000, which are below the 0.05 significance threshold. This suggests that the Fixed Effect Model (FEM) is the more appropriate model for the analysis. Following the Chow Test, which supports the use of FEM over the Common Effect Model (CEM), the next step is to conduct the Hausman Test. This test helps determine whether the Fixed Effect Model (FEM) or the Random Effect Model (REM) is more suitable. The results of the Hausman Test are presented in the following table:

Table 2. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.975566	2	0.0112

Based on the model selection results, this study employs the Fixed Effect Model (FEM) with the Generalized Least Squares (GLS) estimation method, incorporating cross-section weights. This approach was chosen because it effectively accounts for individual heterogeneity and corrects potential violations of classical assumptions, such as heteroskedasticity and autocorrelation. According to Gujarati and Porter (2015), this method resolves heteroskedasticity issues, yielding a model that is BLUE (Best Linear Unbiased Estimator). Despite using two independent variables, a multicollinearity test was conducted to ensure the model's validity. The results of the multicollinearity test are presented below:

Table 3. Multicolinierity Test Result

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	0.241906	5.466465	NA
ESG	0.763142	4.232551	1.004402
ROA	2.482066	2.004788	1.004402

Based on the results in Table 3, the Variance Inflation Factor (VIF) values are all below 10, indicating the absence of multicollinearity among the independent variables in the regression model. This confirms that the model satisfies the assumption of no multicollinearity, suggesting that each independent variable provides distinct and unique information to the model. Additionally, the results from the panel data regression model estimation are presented in Table 4 below.

Table 4. Regression Model and Hypothesis Testing Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.327217	0.023190	57.23128	0.0000
ESG	0.023497	0.037628	0.624446	0.5346
ROA	1.320321	0.099065	13.32783	0.0000

Panel Data Regression and Partial Test (t-test)

Based on the regression results presented in Table 4, the following model equation is derived:

$$Y=1.327217+0.023497(ESG)+1.320321(ROA)+\epsilon i$$

The estimation results reveal the following:

1) ESG (Environmental, Social, and Governance)
   The coefficient for the ESG variable is 0.023497, with a p-value of 0.5346, which exceeds the 0.05 significance level. This indicates that ESG has no statistically significant effect on firm value at the 95% confidence level. In other words, sustainability performance disclosure has not been able to directly enhance firm value during the observation period.
2) ROA (Return on Assets)
   The coefficient for ROA is 1.320321, with a p-value of 0.0000, which is less than 0.05. This suggests that ROA has a positive and statistically significant impact on firm value. Therefore, a company's ability to generate profits from its assets is positively associated with higher firm value, as reflected in stock prices and investor perceptions.
3) The findings indicate that while the ESG variable shows a positive relationship with firm value, this relationship is not statistically significant during the 2022–2024 period. The coefficient of 0.023497 and a p-value of 0.5346 (>0.05) suggest that, although there is a positive association between ESG and firm value, this effect is not strong enough to account for the variations in firm value.

Table 5. Simultaneous Test Result

Statistic	Value
F-Statistic	78.98585
Prob (F-Statistic)	0.000000
R-Squared	0.976766
Adjusted R-Squared	0.964400

Discussion

Based on the results presented in Table 5, the F-statistic value of 78.98585 with a p-value of 0.000000, which is less than the 0.05 significance level, indicates that the variables Environmental, Social, and Governance (ESG) and Return on Assets (ROA) together have a significant influence on firm value. This finding suggests that the regression model employed in this study is statistically appropriate and reliable in explaining the relationship between the independent and dependent variables. The R-squared value of 0.976766 reveals that approximately 97.68% of the variation in firm value can be explained by the combined effects of ESG and ROA, with the remaining 2.32% attributed to other factors not included in the

model. Moreover, the Adjusted R-squared value of 0.964400 confirms that the model maintains a high level of goodness of fit, even after adjusting for the number of independent variables. This demonstrates that the model has strong explanatory power, with both ESG and ROA contributing meaningfully to variations in firm value. These results suggest that ESG disclosure has not yet become a primary consideration for investors when making investment decisions in Indonesia's energy sector. Several factors may explain this observation, including: (1) investors' limited understanding of sustainability reporting, which may cause ESG information to be perceived as less relevant in valuation processes (Putri & Siregar, 2023); (2) the lack of standardization and depth in ESG reporting across companies, making it difficult to compare sustainability information objectively (Al-Homaidi *et al.*, 2020); and (3) ESG practices that remain symbolic or compliance-driven rather than genuinely aimed at long-term value creation (Nguyen *et al.*, 2021).

These findings align with those of Sartono and Agustina (2023), who reported that ESG disclosure in Indonesia's energy sector does not significantly impact firm value due to limited investor confidence in companies' long-term sustainability commitments. Similarly, Nurmasari and Yuliana (2022) found that ESG reporting in Indonesia's mining sector had not influenced firm value, primarily because the quality of reporting remains inconsistent and is not fully integrated into core business strategies. Haryanto (2021) observed similar results in the ASEAN manufacturing sector, noting that while ESG has a positive but insignificant effect on Tobin's Q, regional capital markets still prioritize financial performance over sustainability. In contrast, several international studies have found a significant and positive relationship between ESG practices and firm value. For example, Buallay (2019) found that companies with higher ESG scores tend to exhibit greater market value and operational efficiency, particularly in countries with robust corporate governance systems. The findings also indicate that the Return on Assets (ROA) variable has a positive and statistically significant effect on firm value, with a coefficient of 1.320321 and a p-value of 0.0000, which is less than the 0.05 significance threshold. This suggests that the higher a company's ability to generate profits from its assets, the greater its perceived value among investors. This result supports the signaling theory proposed by Spence (1973), which asserts that strong financial performance signals a company's future growth potential and stability to investors. Therefore, companies that effectively utilize their assets to generate profits tend to receive positive market responses, reflected in increased stock prices and higher firm value (Nguyen & Nguyen, 2020; Rahman & Saidu, 2022). These findings are consistent with several empirical studies from the past decade. For example, Wahyuni and Pratama (2022) found that ROA has a positive and significant impact on firm value in Indonesia's energy and mining sectors, highlighting the importance of profitability as a key indicator for investors when assessing company performance.

Similarly, Putri and Santoso (2021) explained that ROA is an important reflection of managerial effectiveness in utilizing company assets. The results of the simultaneous significance test (F-test) further reinforce these findings, indicating that ESG disclosure and profitability (ROA) together have a statistically meaningful impact on firm value. While ESG disclosure, when considered independently, does not achieve statistical significance, its combination with financial performance variables enhances the explanatory power of the model. This suggests that investors may gradually begin to recognize sustainability factors as complementary to financial outcomes, especially as global attention on environmental responsibility and sound governance practices grows. In a broader sense, the study indicates that the primary driver of firm valuation within Indonesia's energy sector remains profitability, while sustainability performance contributes as a supplementary, though increasingly important, factor. These results imply that the Indonesian capital market is undergoing a transitional phase—evolving toward a more integrated approach that acknowledges both financial and non-financial factors in assessing corporate value. This

ongoing shift aligns with international investment trends, where ESG considerations are progressively seen as indicators of a company's long-term stability, adaptability, and capacity to mitigate risks.

Conclusion

This study examines the impact of sustainability performance (ESG disclosure) and profitability (ROA) on the firm value of energy companies listed on the Indonesia Stock Exchange (IDX) for the period 2022–2024. The empirical analysis reveals that while ESG disclosure has a positive relationship with firm value, it remains statistically insignificant. In contrast, ROA demonstrates a positive and significant impact on firm value. These findings suggest that investors in Indonesia's energy sector continue to prioritize financial performance over sustainability considerations when making investment and valuation decisions. The lack of a significant relationship between ESG disclosure and firm value suggests that sustainability practices and disclosures within Indonesian energy companies have not yet been fully integrated into strategic management processes or recognized by the market as significant value drivers. On the other hand, profitability remains the primary determinant of firm value, with companies exhibiting higher ROA generally perceived as having more effective management and stronger long-term growth potential. While profitability has been identified as the key driver of firm value, companies must ensure that their profit generation is achieved through efficient and sustainable practices. Energy companies should work to improve the transparency and depth of their ESG disclosures, ensuring that sustainability information is credible, relevant, and meaningful to investors. Reporting should not be viewed merely as a compliance exercise but should reflect a genuine commitment to long-term sustainability. Future research could explore moderating or mediating factors such as firm size, ownership structure, or leverage to provide deeper insights into the relationship between ESG, profitability, and firm value.

References

Agustina, Y., Setiadi, I., & Murwaningsari, E. (2025). Unpacking ESG disclosure and market performance: a stakeholder-based study of Indonesian Energy Firms. *International Journal of Applied Finance and Business Studies*, *13*(2), 236-246.

Behl, A., Kumari, P. R., Makhija, H., & Sharma, D. (2022). Exploring the relationship of ESG score and firm value using cross-lagged panel analyses: case of the Indian energy sector. *Annals of Operations Research*, *313*(1), 231-256.

Constantinescu, D., Caraiania, C., Lungua, C. I., & Mititeana, P. (2021). Environmental, social and governance disclosure associated with the firm value. Evidence from energy industry. *Accounting and Management Information Systems*, *20*(1), 56-75.

Dorothy, P., & Endri, E. (2024). Environmental, social and governance disclosure and firm value in the energy sector: The moderating role of profitability. *Problems and Perspectives in Management*, *22*(4), 588.

Li, Y., Gong, M., Zhang, X., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. The British Accounting Review, 50(1), 60-75. https://doi.org/10.1016/j.bar.2017.09.007.

Listianah, S., & Kurniasih, A. Firm Size as Moderator of ESG, Dividend Policy, And Efficiency Impact on Firm Value: Evidence from Indonesia's Energy Sector.

Maysari, M., & Endri, E. (2025). ESG Disclosure, Intellectual Capital, and Firm Value in the Energy Sector in Indonesia: The Moderating Role of Firm Size. *International Journal of Energy Economics and Policy*, *15*(6), 512.

Meini, Z., & Setijaningsih, H. T. (2024). The impact of ESG on firm value: Empirical study on Indonesia and Singapore companies. *EQUITY*, *27*(2), 128-146. https://doi.org/10.34209/equ.v27i2.9183.

Negara, N. G. P., Ishak, G., & Priambodo, R. E. A. (2024). Impact of ESG disclosure score on firm value: Empirical evidence from ESG listed company in Indonesia Stock Exchange. *European Journal of Business and Management Research*, *9*(2), 114-118.

Rahayu, I., & Sanjaya, M. I. N. (2024). ESG Performance and Firm Value: An Empirical Study in Indonesia. *Review of Integrative Business and Economics Research*, *13*(4), 513-526.

Ridwansyah, R., & Setijaningsih, H. T. (2024). The Effect Of Environment, Social, Governance (ESG Disclosure) And Profitabiltiy On Firm Value With Audit Fee As Moderating Variable: Study Of Energy Sector Companies Listed On The Indonesian Stock Exchange Period 2019-2022. *Journal of Economic, Business and Accounting (COSTING)*, *7*(3), 3818-3825.

Rosa, N. I., & Noveria, A. (2025). Do Environmental, Social, and Governance (ESG) Factors Affect Firm Value in Indonesia's Environmentally Sensitive Industries?. *Jurnal Manajemen Bisnis*, *12*(2), 01-18.

Yu, E. P., Guo, Q., & Luu, B. V. (2018). Environmental, social and governance transparency and firm value. Business Strategy and the Environment, 27(7), 987-1004. https://doi.org/10.1002/bse.2047.

Yudha, S. W. and Tjahjono, B. (2019). Stakeholder Mapping and Analysis of the Renewable Energy Industry in Indonesia. Energies, 12(4), 602. https://doi.org/10.3390/en12040602.

Zalianty, M. Y., & Azmi, Y. U. (2025). The Effect of Corporate Governance and Environmental, Social, and Governance Performance on Firm Value: Case Study of Energy Sector Companies in Indonesia. *Jurnal Akuntansi dan Bisnis: Jurnal Program Studi Akuntansi*, *11*(1), 34-53.