

HOW DOES FINANCIAL PERFORMANCE MEDIATE THE RELATIONSHIP BETWEEN SUSTAINABILITY REPORTING AND FIRM VALUE? (A Study of Energy Sector Companies Listed on the Indonesia Stock Exchange, 2020–2024)

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Abstract

This study examines the effect of sustainability reporting on firm value, with financial performance as a mediating variable, in energy sector companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The research employs a quantitative design using secondary data obtained from annual and sustainability reports. The sample consists of 14 energy sector firms selected through purposive sampling. Data are analysed using the Partial Least Squares–Structural Equation Modelling (PLS-SEM) technique with SmartPLS 4 software. The results reveal that financial performance has a positive and significant effect on firm value. Sustainability reporting is found to have a negative and significant effect on financial performance, while its direct effect on firm value is insignificant. Moreover, financial performance does not mediate the relationship between sustainability reporting and firm value. These findings suggest that despite the relatively high level of sustainability disclosure in the energy sector, capital market participants continue to prioritise financial performance as the primary determinant of firm value. Accordingly, the study underscores the importance of integrating sustainability initiatives with financial performance improvements to support long-term value creation.

Keywords: Sustainability Report, Financial Performance, Firm Value.

1. INTRODUCTION

Over the past two decades, sustainability reporting has become an integral part of global business practices, particularly in the energy sector, which has significant environmental and social impacts (GRI, 2021). In Indonesia, the Indonesia Stock Exchange reported that approximately 94% of listed companies had published sustainability reports in 2023, following the implementation of sustainable finance regulations by the Financial Services Authority (Emiten News, 2023; Otoritas Jasa Keuangan, 2017). The increasing disclosure of environmental, social, and governance (ESG) information is expected to strengthen investor confidence and enhance firm value. However, in practice, the market value of several energy companies has continued to exhibit substantial fluctuations, especially during the 2020–2021 period, despite the rising level of sustainability disclosure (Indonesia, (2022); International Energy Agency, (2021).

In 2020, the market value of energy companies in the Indonesian capital market declined sharply, as reflected in the weakening of market indicators such as market

capitalization, primarily due to the COVID-19 pandemic and the downturn in global energy demand ((Bursa Efek Indonesia, (2021); International Energy Agency, (2021). During 2021–2022, a significant recovery in the value of energy companies occurred in line with rising oil, coal, and gas prices, with several energy issuers recording increases in market value of more than 30% compared to the previous year, although this improvement was not evenly distributed across all energy subsectors (Bursa Efek Indonesia, (2022); International Energy Agency, (2023). Nevertheless, in the 2023–2024 period, the firm value of energy sector companies once again experienced volatility due to pressures from the energy transition, rising environmental compliance costs, and shifts in investor preferences toward sustainable investments. Consequently, companies with weaker financial performance and less effective sustainability strategies tended to experience stagnation or declines in firm value (Otoritas Jasa Keuangan, (2023); International Energy Agency, (2023).

Stakeholder theory posits that sustainability disclosure can enhance corporate legitimacy in the eyes of stakeholders and, in turn, affect firm value (Freeman, 1984). Signaling theory further explains that ESG information serves as a signal of management quality to investors (Spence, 1973), while value relevance theory emphasizes that non-financial information influences firm value only when it has implications for financial performance and future cash flow prospects (Ohlson, 1995). In reality, the high costs associated with implementing sustainability initiatives in the energy sector may exert downward pressure on short-term profitability, thereby weakening the direct impact of sustainability reporting on firm value (Al Gamar, M. F., & Widoretno, 2024).

Firm value represents a condition achieved by a company that reflects public trust in the company (Putri, R. H., Handayani, S. R., & Saifi, 2019). It serves as a primary reference for investors in making investment decisions, as companies with higher valuations are generally more attractive to investors. Therefore, firm value plays a crucial role in business development, and continuous efforts are required to enhance it (Kusmiyati, K., & Machdar, 2023).

A sustainability report is a reporting practice aimed at internal and external stakeholders that discloses a company's economic, environmental, and social impacts, including its contribution to sustainable development goals. This concept aligns with the triple bottom line framework, commonly referred to as the three Ps: profit, people, and planet. As a result, the publication of sustainability reports is highly anticipated by companies with the expectation that such disclosures will influence investor reactions in the capital market and ultimately increase firm value (Sari, D. P., & Wahidahwati, 2021).

Profitability refers to the earnings generated by a company as a measure of its performance. A firm's ability to manage its operations effectively can be assessed through its profit levels, as reflected in its financial statements. Higher profitability ratios indicate better company performance and improved future prospects, which encourage

long-term investors to allocate their capital to firms that generate higher returns. This success in managing investors' funds has the potential to enhance firm value (Sari, D. P., & Wahidahwati, 2021).

2. METHODOLOGY

This research adopts a quantitative approach based on secondary data. The study population comprises all energy sector companies listed on the Indonesia Stock Exchange that issued annual reports over the 2020–2024 period (Nuryaman & Veronica, (2015); Zikmund, W. et. al., (2021); Zulganef, (2018). A purposive sampling technique is employed, whereby sample selection is based on predetermined criteria aligned with the research objectives. Applying these criteria results in a final sample of 14 energy sector companies listed on the Indonesia Stock Exchange (IDX). The study utilises the Partial Least Squares–Structural Equation Modelling (PLS-SEM) approach, encompassing the assessment of both the measurement model (outer model) and the structural model (inner model).

Table 1. Operational Definition of Variables

No	Variable	Indicator	Scale
1	Sustainability Report	$SDGs = \frac{\text{Total disclosed items}}{\text{Total Item}} \times 100$	Ratio
2	Financial Performance	$ROE = \frac{\text{Net income after tax}}{\text{Total Equitas}} \times 100$	Ratio
3	Firm Value	$PER = \frac{\text{share price per share}}{\text{Earnings per Share}} \times 100$	Ratio

3. FINDINGS AND DISCUSSION

Based on the results of the study, it can be concluded that:

Table 2. Descriptive Statistics Table

No	Name	Mean	Median	Min	Max	St. deviation
1	Sustainability Report	74.02	70.58	35.29	100.00	18.53
2	Financial Performance	9.28	11.40	-254.34	61.00	35.58
3	Firm Value	2.21	1.20	-129.00	73.00	20.33

Source: Data processed using SmartPLS 4

The descriptive statistics indicate that the sustainability reporting variable has a mean of 74.02 and a median of 70.58, suggesting that energy sector companies generally exhibit a relatively high level of sustainability disclosure. However, substantial variability remains across firms, as reflected by the minimum value of 35.29, the maximum value of 100.00, and a standard deviation of 18.53. Financial performance, measured by profitability, records a mean of 9.28 and a median of 11.40, indicating that most firms generated positive earnings during the observation period. Nevertheless, the wide dispersion between the minimum value of -254.34 and the

maximum value of 61.00, together with a standard deviation of 35.58, points to pronounced volatility and heterogeneity in firms' financial conditions. Meanwhile, firm value exhibits a mean of 2.21 and a median of 1.20, implying that, on average, firms are valued slightly above their book value. The broad range from -129.00 to 73.00 and a standard deviation of 20.33 further reflect considerable fluctuations and substantial differences in investor assessments of the prospects and risks associated with energy sector companies.

Meanwhile, the results of the linear analysis using the PLS approach are presented as follows:

Table 3. Regression Coefficient Results

	Koefisien
Financial Performance > Firm Value	0.346
Sustainability Report > Financial Performance	-0.180
Sustainability Report > Firm Value	0.158

Source: Data processed using SmartPLS 4

The financial performance coefficient is positive with a value of 0.346, indicating that a 1% increase in financial performance leads to an increase in firm value of 0.346, *ceteris paribus*. This finding suggests that higher financial performance is followed by an increase in firm value, assuming other factors remain constant. Meanwhile, the sustainability report coefficient has a negative value of -0.180, implying that a 1% increase in sustainability reporting is associated with a decrease in financial performance of 0.180. In other words, a higher level of sustainability disclosure tends to reduce financial performance. In contrast, the coefficient of sustainability reporting on firm value is positive at 0.158, indicating that a 1% increase in sustainability reporting is associated with an increase in firm value of 0.158. This result suggests that higher sustainability disclosure tends to enhance firm value.

Subsequently, the results of the hypothesis testing are presented as follows:

Table 4. Regression Coefficient Results

Hipotesis		Original Sampel	T Statistic (O/STDEV)	P Values	Ket
H ₁	FP > FV	0,346	0.080	0.000	Accepted
H ₂	SR > FP	-0.180	0.075	0.017	Accepted
H ₃	SR > FV	0.158	0.124	0.201	Rejected
H ₄	SR > FP > FV	-0.062	0.035	0.073	Rejected

Source: Data processed using SmartPLS 4

Based on the hypothesis testing results, financial performance is proven to have a positive and significant effect on firm value; therefore, Hypothesis H₁ is accepted. This relationship is indicated by a coefficient of 0.346 with a T-statistic of 0.080 and a p-value of 0.000. Furthermore, sustainability reporting has a negative and significant effect on financial performance, leading to the acceptance of Hypothesis H₂, as reflected by a coefficient of -0.180 and a p-value of 0.017. The results show that sustainability reporting does not exert a statistically significant effect on firm value, leading to the rejection of Hypothesis H₃. Although the estimated path coefficient is

positive (0.158), the associated p-value (0.201) exceeds the conventional significance level. Furthermore, the indirect effect of sustainability reporting on firm value via financial performance is also statistically insignificant, resulting in the rejection of Hypothesis H₄. This is reflected in a mediation coefficient of -0.062 with a p-value of 0.073. These results indicate that financial performance does not function as a mediating variable in the relationship between sustainability reporting and firm value for energy sector companies over the observation period.

3.1 Discussion

3.1.1 Effect of Financial Performance on Firm Value

The empirical results confirm that financial performance has a positive and statistically significant effect on firm value in energy sector companies over the 2020–2024 period. This finding suggests that firms with stronger profitability, more efficient asset utilisation, and stable earnings performance are perceived more favourably by investors, thereby contributing to higher market valuations. In the energy sector, which is characterised by substantial operating expenditures, intensive capital investment, and exposure to commodity price volatility, robust financial performance functions as an important credibility signal, indicating a firm's ability to manage resources and market risks effectively. Consequently, enhanced investor confidence is translated into higher stock prices and valuation multiples. These results are consistent with prior empirical evidence reported by Nur Arifani and Christiani (2025), which demonstrates that financial performance indicators, particularly profitability and return on equity (ROE), play a significant role in increasing firm value among energy sector companies listed on the Indonesia Stock Exchange, as investors tend to assign premium valuations to firms exhibiting strong and sustainable financial performance.

3.1.2 Effect of Sustainability Reporting on Financial Performance

The analysis indicates that sustainability reporting has a negative effect on the financial performance of energy sector companies during the 2020–2024 period, suggesting that an increase in the intensity of sustainability disclosure has not been accompanied by improved profitability. This phenomenon may occur because, in the short term, energy companies are required to allocate substantial costs for the development, implementation, and reporting of sustainability practices, which in turn reduces reported earnings. This condition is consistent with findings from previous studies indicating that expenditures related to the implementation and reporting of sustainability initiatives tend to suppress initial profitability in energy companies. Evidence from Rahman et al. (2023) shows that sustainability investments that are not managed efficiently can have a negative impact on financial ratios such as return on equity (ROE), particularly in firms operating with relatively low profit margins.

3.1.3 Effect of Sustainability Reporting on Firm Value

The findings indicate that sustainability reporting does not have a significant effect on firm value in the energy sector during the 2020–2024 period, suggesting that the disclosure of sustainability-related activities has not yet become a decisive factor

in shaping corporate valuation from investors' perspectives. This condition may arise because investors in the energy sector tend to place greater emphasis on financial performance indicators, such as profitability and cash flows, rather than on sustainability reports, particularly amid energy price uncertainty and increasing operational pressures. This result is further supported by prior empirical evidence showing that, in many energy companies, sustainability reporting does not directly influence investors' perceptions of firm value when it is not accompanied by strong financial performance. Consistent with this argument, the study by Wijaya and Hartono (2022) demonstrates that the impact of sustainability disclosure on firm value is often insignificant when fundamental factors, especially profitability, dominate market valuation.

3.1.4 Effect of Sustainability Reporting on Firm Value with Financial Performance as a Mediating Variable

The results indicate that sustainability reporting does not directly enhance firm value in the energy sector during the 2020–2024 period through financial performance, as the indirect effect formed via financial performance as a mediating variable is not statistically significant. This finding suggests that, although energy companies have increasingly intensified their sustainability disclosures, such efforts have not been sufficient to improve investors' perceptions of firm value unless they are accompanied by tangible improvements in financial performance. In practice, investors in the energy sector tend to focus primarily on financial fundamentals, such as profitability, cash flows, and operational efficiency, as the main basis for valuation, while sustainability reports are regarded as supplementary information that has limited influence on short-term investment decisions. This result is consistent with prior studies indicating that the effect of sustainability disclosure on firm value is often mediated by financial performance and does not exert a significant influence in the absence of improved financial indicators. For instance, Prasetyo and Lestari (2023) demonstrate that financial performance plays a crucial mediating role in the relationship between ESG disclosure and firm value, where ESG disclosure that is not followed by an increase in ROA does not significantly affect firm value. Therefore, this study underscores the importance of financial performance as the primary channel through which sustainability disclosure can influence corporate valuation in the energy sector during the 2020–2024 period.

4. CONCLUSION

Based on the empirical evidence from energy sector companies over the 2020–2024 period, the study concludes that financial performance exerts a positive and significant influence on firm value, underscoring profitability as the primary consideration for investors in valuing firms. Sustainability reporting is found to have a negative and significant impact on financial performance, indicating that higher levels

of sustainability disclosure may place short-term pressure on profitability due to the substantial costs of implementation. Nevertheless, sustainability reporting does not have a significant direct effect on firm value, nor does financial performance mediate the relationship between sustainability reporting and firm value. These findings suggest that, within the observation period, sustainability disclosures in the energy sector have not been fully capitalised by the market into higher firm valuations, particularly in the absence of concurrent improvements in financial performance.

Accordingly, energy sector companies are encouraged to align sustainability strategies with initiatives aimed at improving operational efficiency and financial performance, so that sustainability reporting extends beyond regulatory compliance and contributes to tangible economic value. Management should ensure that sustainability-related investments are implemented efficiently to prevent adverse effects on profitability and to support long-term value creation. From an investor perspective, financial performance should remain the primary criterion in investment decision-making, while sustainability reports may be utilised as supplementary information. Future studies are recommended to incorporate additional determinants, such as firm size, industry-specific risk, or corporate governance mechanisms, in order to develop a more comprehensive understanding of the factors influencing firm value in the energy sector.

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