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The Effect of Green Accounting and Corporate Social Responsibility Implementation on the Financial Performance of Energy Sector Companies Listed on the Indonesia Stock Exchange

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Abstract

This study is urgent because understanding how green accounting and CSR affect financial performance can support sustainable business practices in energy sector companies. This study aims to analyze the impact of Green Accounting and Corporate Social Responsibility (CSR) implementation on the financial performance of energy sector companies listed on the Indonesia Stock Exchange during the 2019-2024 period. A quantitative approach was employed using secondary data obtained from financial statements, annual reports, and corporate sustainability reports. The study population consisted of 91 energy sector companies. Through purposive sampling, a sample of 10 companies was selected for a six-year observation period. Green Accounting was measured using a dummy variable, CSR was measured using the CSR Disclosure Index based on GRI G4 guidelines, and financial performance was measured using Return on Assets (ROA). Analysis was conducted using EViews, involving panel data model selection tests (Chow, Hausman, and Lagrange Multiplier tests) and hypothesis testing (t-test, F-test, and coefficient of determination). The results indicate that Green Accounting has a positive and significant effect on financial performance, with a coefficient of 63,110.1385, a t-statistic of 2.534317, and a probability of 0.0141. CSR showed a coefficient of -6,920.1940, a t-statistic of -0.245974, and a probability of 0.8066, indicating no significant effect on financial performance. Simultaneously, Green Accounting and CSR significantly influenced financial performance, with an F-statistic of 3.213313 and a probability of 0.047743. The Adjusted R-squared value of 0.070909 indicates that the model explains 7.09% of the variation in financial performance. The findings demonstrate that, on an individual basis, Green Accounting implementation has a stronger relationship with financial performance than CSR, while the combined integration of Green Accounting and CSR shows a significant relationship with the financial performance of energy sector companies.

Keywords: *Green Accounting, Corporate Social Responsibility, Financial Performance, Return on Assets, Energy Sector*.

Introduction

Sustainability has become an increasingly important consideration in corporate decision-making as companies are expected to address not only economic objectives but also their social and environmental responsibilities. This expectation is particularly relevant for companies operating in environmentally sensitive industries, including the energy sector, whose business activities are closely associated with natural-resource utilization and environmental impacts. Accordingly, companies are increasingly encouraged to integrate

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environmental and social considerations into their business practices and corporate reporting (Gupta & Das, 2022; Wang et al., 2016).

The growing emphasis on sustainability has also encouraged the development of accounting practices that incorporate environmental considerations into corporate decision-making (Abdullah & Muchran, 2026). One of these practices is Green Accounting, which integrates environmental aspects into accounting processes and enables companies to identify and consider environmental costs associated with their business activities. Green Accounting can provide management with information concerning environmental expenditures and resource utilization, which may support more effective decision-making and contribute to corporate sustainability (Endiana et al., 2020; Khan & Gupta, 2024). Empirical evidence, however, indicates that the relationship between Green Accounting and financial performance is not always consistent across companies and industries.

The energy sector represents an important context for examining this relationship because its operational activities are closely related to natural resources and environmental issues. Companies in this sector face increasing expectations to manage environmental impacts while maintaining financial performance. Recent studies of Indonesian energy companies have examined the relationship between Green Accounting, sustainability practices, and financial performance, although their findings remain mixed (Basyir et al., 2026; Natariasari et al., 2026). These differences suggest that the financial implications of environmental accounting practices may depend on industry characteristics, measurement approaches, and the period of observation.

In addition to environmental considerations, companies are increasingly expected to demonstrate responsibility toward society and other stakeholders through Corporate Social Responsibility (CSR). CSR represents corporate efforts to address social and environmental responsibilities and communicate these activities to stakeholders through corporate and sustainability disclosures. CSR disclosure can provide stakeholders with information about a company's commitment to social and environmental issues and may contribute to corporate reputation and stakeholder relationships (Gupta & Das, 2022; Wang et al., 2016).

The relationship between CSR and financial performance also remains inconclusive. Several studies have reported a positive relationship between CSR and financial performance, whereas other studies have found insignificant or negative relationships (Wahyu & Muchran, 2026). For example, research on Indonesian companies has produced different findings concerning the effect of CSR disclosure on financial performance (Cang & Utama, 2021; Wicaksono & Krisnawati, 2021) Similarly, the previous studied found that CSR and Green Accounting did not have a significant relationship with profitability among Indonesian mining companies (Nurrasyidin et al., 2024). These inconsistent findings indicate that CSR activities do not necessarily generate immediate financial benefits and that their effects may depend on industry characteristics, disclosure practices, and the time horizon considered.

Previous studies have also examined Green Accounting and CSR simultaneously (Anggraeni & Dewi, 2022). For example, found that Green Accounting and CSR jointly affected financial performance, although Green Accounting did not have a significant partial effect. Similarly, the previous studied reported that Green Accounting and CSR jointly affected company performance in Indonesian mining companies (Suryani & Jumaida, 2022). More recent evidence from Indonesian energy-sector companies also demonstrates that the individual and simultaneous effects of these sustainability-related practices may vary across studies (Ardiansyah et al., 2025; Riski et al., 2025). These inconsistent findings indicate a

research gap concerning the relationship between Green Accounting, CSR, and financial performance, particularly in the Indonesian energy sector. Differences in sample characteristics, observation periods, measurement methods, and industry conditions may contribute to variations in empirical results. Therefore, further research focusing specifically on energy-sector companies listed on the Indonesia Stock Exchange is necessary to provide additional empirical evidence.

This study examines the effect of Green Accounting and Corporate Social Responsibility on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange during 2019-2024. Financial performance is measured using Return on Assets (ROA), while Green Accounting is measured using a dummy variable and CSR is measured using a Corporate Social Responsibility Disclosure Index based on GRI G4 indicators. The use of a six-year observation period is intended to provide a broader view of the relationship between sustainability-related practices and financial performance.

Based on the research background and the mixed findings of previous studies, this study proposes three hypotheses. First, Green Accounting is expected to affect financial performance. Second, Corporate Social Responsibility is expected to affect financial performance. Third, Green Accounting and Corporate Social Responsibility are expected to jointly affect financial performance. The hypotheses are formulated as follows:

H1: Green Accounting has a significant effect on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange.

H2: Corporate Social Responsibility has a significant effect on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange.

H3: Green Accounting and Corporate Social Responsibility jointly have a significant effect on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange.

Methods

Research Design

This study employs a quantitative research approach to examine the effect of Green Accounting and Corporate Social Responsibility (CSR) on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange (IDX). A quantitative approach was selected because the study examines the relationship between independent and dependent variables using numerical data and statistical analysis.

The independent variables in this study are Green Accounting (X1) and Corporate Social Responsibility (X2), while the dependent variable is financial performance (Y), which is measured using Return on Assets (ROA). The study uses secondary data obtained from companies' annual reports, financial statements, and sustainability reports during the 2019-2024 observation period.

Population and Sample

The population consists of all energy-sector companies listed on the Indonesia Stock Exchange during the observation period. Based on the research data, the population comprised 91 companies. The energy sector was selected because its operational activities are closely associated with the utilization of natural resources and environmental impacts. This

characteristic makes the sector relevant for examining corporate environmental and social practices, particularly Green Accounting and CSR. The sample was selected using purposive sampling, in which observations are selected based on predetermined criteria relevant to the research objectives and data availability. The sampling criteria were applied to ensure that the selected companies provided sufficient information to measure all research variables, namely Green Accounting, CSR, and financial performance.

Based on these criteria, 10 companies were selected as the research sample. The sampled companies are PT Adaro Energy Indonesia Tbk (ADRO), PT AKR Corporindo Tbk (AKRA), PT Bumi Resources Tbk (BUMI), PT Darma Henwa Tbk (DEWA), PT Dian Swastatika Sentosa Tbk (DSSA), PT Sumber Energi Andalan Tbk (ITMA), PT Indo Tambangraya Megah Tbk (ITMG), PT Mitrabahtera Segara Sejati Tbk (MBSS), PT Bukit Asam Tbk (PTBA), and PT Petrosea Tbk (PTRO). The observation period covers six years, from 2019 to 2024. Accordingly, the sample of 10 companies observed over six years produces 60 firm-year observations. These observations were subsequently used for statistical analysis to examine the relationship between Green Accounting, CSR, and financial performance.

Table 1. *Sample Selection Criteria and Research Sample*

No.	Code	Company
1	ADRO	Adaro Energy Indonesia Tbk
2	AKRA	AKR Corporindo Tbk
3	BUMI	Bumi Resources Tbk
4	DEWA	Darma Henwa Tbk
5	DSSA	Dian Swastatika Sentosa Tbk
6	ITMA	Sumber Energi Andalan Tbk
7	ITMG	Indo Tambangraya Megah Tbk
8	MBSS	Mitrabahtera Segara Sejati Tbk
9	PTBA	Bukit Asam Tbk
10	PTRO	Petrosea Tbk

Table 1 presents the research sample selected based on the established sample selection criteria. The table lists 10 companies from the energy sector, along with their respective stock codes and company names. The selected companies constitute the final research sample used for subsequent data analysis.

Operationalization of Variables

Variable operationalization translates each research concept into measurable indicators that can be used in the empirical analysis. This study consists of two independent variables, namely Green Accounting (X1) and Corporate Social Responsibility (X2), and one dependent variable, namely financial performance (Y).

Table 2. *Operationalization of Research Variables*

Variable	Operational Definition	Indicators/Measurements	Scale
Green Accounting (X1)	The implementation of accounting practices that consider and incorporate environmental aspects into corporate activities.	Dummy variable: value 1 if the company meets the Green Accounting indicators and value 0 if it does not meet the indicators.	Nominal
Corporate Social Responsibility (X2)	Disclosure of corporate responsibility regarding social and environmental aspects to stakeholders.	CSRI = number of disclosed CSR items / number of CSR items used, based on the 91 GRI G4 items.	Ratio
Financial Performance (Y)	A company's ability to generate profit by utilizing all its assets.	ROA = Net Profit / Total Assets × 100%	Ratio

Based on Table 2, Green Accounting serves as the first independent variable (X1), representing the implementation of accounting practices that incorporate environmental considerations into corporate activities. In this study, Green Accounting is measured using a dummy variable. A value of 1 is assigned to companies that meet the established Green Accounting implementation indicators, while a value of 0 is assigned to those that do not. This approach identifies the presence of Green Accounting implementation within each company during the observation period. The research data shows 55 observations with a value of 1 and 5 observations with a value of 0.

The second independent variable is Corporate Social Responsibility (CSR). CSR represents the extent of a company's disclosure regarding its social and environmental responsibilities. CSR is measured using the Corporate Social Responsibility Disclosure Index (CSRI), based on GRI G4 indicators. This study utilizes 91 items as the basis for assessment. Each item disclosed by a company receives a score of 1, while undisclosed items receive a score of 0. The CSRI value is calculated by comparing the number of disclosed items to the total number of indicator items. A higher CSRI value indicates a broader level of corporate CSR disclosure.

The dependent variable in this study is financial performance (Y), proxied by Return on Assets (ROA). ROA reflects a company's ability to generate profit based on its assets. It is calculated by dividing net income by total assets and multiplying the result by 100%. A higher ROA value indicates a greater ability to generate profit from utilized assets. Thus, Green Accounting and CSR serve as independent variables tested both individually and simultaneously against the financial performance of energy sector companies. The measurement of these three variables forms the basis for the regression analysis and hypothesis testing in this study.

Data collection technique

This study employs a documentation-based data collection technique, utilizing secondary data obtained from the annual reports, financial statements, and sustainability reports of energy sector companies listed on the Indonesia Stock Exchange during the 2019-2024 period. Data collection focused on companies that met the study's sample criteria.

The collected data encompasses information regarding Green Accounting implementation and Corporate Social Responsibility (CSR) disclosure, as well as financial data-specifically net income and total assets. Information on Green Accounting was used to determine dummy variable values, while CSR information served to calculate a disclosure index based on 91 GRI G4 items. Furthermore, net income and total asset figures were used to calculate Return on Assets (ROA) as an indicator of financial performance. The collected data underwent verification to ensure completeness and alignment with the study period. Subsequently, the data were organized by company code and observation year. Once the data were validated, they were processed using EViews to conduct statistical analysis and hypothesis testing (Natariasari et al., 2026)

Table 3. *Research Data Sources*

Variable	Data Used	Data source
Green Accounting (X1)	Information on the implementation/ disclosure of environmental aspects	Annual report and sustainability report
CSR (X2)	CSR disclosure items based on GRI G4	Annual report and sustainability report
Financial Performance (Y)	Net profit and total assets	Financial statements

Table 3 presents the data sources and measurements used for each research variable. Green Accounting (X1) is measured using information on the implementation and disclosure of environmental aspects obtained from annual and sustainability reports. Corporate Social Responsibility (CSR) (X2) is measured based on CSR disclosure items referring to the GRI G4 guidelines, using annual and sustainability reports as the primary data sources. Financial Performance (Y) is measured using net profit and total assets obtained from the companies' financial statements.

Data Analysis Techniques

Data analysis in this study was conducted using EViews with a panel data regression approach. The use of panel data regression was selected to suit the study's data characteristics, which involve multiple companies observed over several periods (2019-2024). The analysis aimed to determine the impact of Green Accounting and Corporate Social Responsibility (CSR) on the financial performance of energy sector companies, proxied by Return on Assets (ROA). Prior to hypothesis testing, descriptive statistical analysis was employed to outline the characteristics of the research variables. Subsequently, the appropriate panel data regression model was selected by evaluating the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). Model selection was carried out using the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test, following the study's established testing procedures.

Once the regression model was determined, hypothesis testing was conducted to assess the influence of the independent variables on the dependent variable. The t-test was used to determine the partial effect of Green Accounting and CSR on financial performance, while the F-test was used to determine their simultaneous effect. Furthermore, the coefficient of determination (Adjusted R-squared) was used to measure the extent to which Green Accounting and CSR explain the variation in financial performance. Hypothesis testing was conducted at a 5% significance level ($\alpha = 0.05$). If the probability value was less than 0.05, the variable's effect was deemed significant; conversely, if the probability value exceeded 0.05, the effect was deemed insignificant.

Results

Descriptive Statistics

Descriptive statistics are used to provide an overview of the research data characteristics. This analysis encompasses the minimum and maximum values, mean, median, and standard deviation of the financial performance variables-proxied by Return on Assets (ROA) as well as Green Accounting and Corporate Social Responsibility (CSR). The descriptive statistics results offer an initial picture of the data's characteristics, distribution, and variation prior to conducting regression analysis.

Table 3. *Descriptive Statistics of Research Variables*

Statistic	ROA (Y)	Green Accounting (X1)	CSR (X2)
Mean	37,85203	0,916667	0,436000
Median	0,156000	1,000000	0,380000
Maximum	577,4430	1,000000	1,000000
Minimum	0,002000	0,000000	0,120000
Std. Dev.	96,97855	0,278718	0,244084
Jarque-Bera	692,7066	216,6116	5,869247
Probability	0,000000	0,000000	0,053151
Observations	60	60	60

Based on Table 3, the Green Accounting variable has a mean value of 0.916667, with a minimum of 0 and a maximum of 1. This indicates that the majority of observations have a value of 1, thereby meeting the applied Green Accounting indicator. The median value of 1.000000 further confirms that more than half of the observations hold a value of 1. Meanwhile, the standard deviation of 0.278718 reflects variation in Green Accounting implementation across observations, although this variation is relatively limited given that the variable is measured using a dummy variable.

The Corporate Social Responsibility (CSR) variable has a mean value of 0.436000, with a minimum of 0.120000 and a maximum of 1.000000. These figures indicate differences in CSR disclosure levels across companies and observation periods. The median value of 0.380000 places the midpoint of CSR disclosure at that level, while the standard deviation of 0.244084 indicates variation in the extent of CSR disclosure. The financial performance variable, proxied by ROA, shows a mean of 37.85203, a median of 0.156000, a minimum of 0.002000, and a maximum of 577.4430. The substantial gap between the mean and median suggests a high degree of data dispersion. The maximum value, being significantly higher than the median, also points to the presence of observations with ROA values that are relatively high compared to the rest.

The ROA standard deviation of 96.97855 which exceeds the mean value indicates a high level of variation in the ROA data. This reflects disparities in financial performance across companies and observation periods throughout the study. Overall, the descriptive statistics reveal that Green Accounting exhibits relatively limited variation, whereas CSR and, particularly, ROA demonstrate greater variation. These differences in characteristics serve as the basis for further analysis to examine the impact of Green Accounting and CSR on the financial performance of energy sector companies.

Selection of Panel Data Regression Models

The selection of a panel data regression model is conducted to identify the estimation model that best suits the characteristics of the research data. There are three approaches in panel data regression: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM). Model selection is determined through the Chow Test, the Hausman Test, and the Lagrange Multiplier (LM) Test. The results of these tests are used to determine the model to be employed in the subsequent regression analysis.

***Table 4**. Results of Panel Data Regression Model Selection*

Testing	Probability Value	Selected Model
Chow Test	0,0000	Fixed Effect Model
Hausman Test	0,1709	Random Effect Model
Lagrange Multiplier Test	0,0001	Random Effect Model

Based on the Chow Test results, a probability value of 0.0000 was obtained. This value is lower than the 0.05 significance level; therefore, the Fixed Effect Model (FEM) was selected over the Common Effect Model (CEM). Subsequently, the Hausman Test was conducted to determine the more appropriate model between the FEM and the Random Effect Model (REM). The Hausman Test yielded a probability value of 0.1709. Since this value exceeds 0.05, the Random Effect Model (REM) was chosen over the Fixed Effect Model (FEM).

Next, the Lagrange Multiplier (LM) Test was performed to compare the Random Effect Model with the Common Effect Model. The test results showed a probability value of 0.0001—below the 0.05 threshold—indicating that the Random Effect Model (REM) is more appropriate

than the Common Effect Model (CEM). Based on the overall test results, the Random Effect Model (REM) was selected for this study to analyze the impact of Green Accounting and Corporate Social Responsibility on the financial performance of energy sector companies.

Assumption Testing

Assumption testing was conducted to ensure that the regression model met the necessary conditions prior to hypothesis testing. In this study, the tests included multicollinearity, heteroscedasticity, and normality tests. All tests were performed using EViews based on data regarding Green Accounting, Corporate Social Responsibility (CSR), and the financial performance of energy sector companies during the study period.

Multicollinearity Test

A multicollinearity test is conducted to determine whether there is a strong relationship between independent variables in the research model. A sound regression model should ideally be free from multicollinearity, as high correlation among independent variables can affect the accuracy of identifying the influence of each variable on the dependent variable. The results of the multicollinearity test are presented in the following table.

Table 5. *Multicollinearity Test Results*

Variable	Green Accounting	CSR
Green Accounting	1,000000	0,127062
CSR	0,127062	1,000000

Based on Table 5, the correlation value between Green Accounting and Corporate Social Responsibility is 0.127062. This value is well below the 0.80 threshold used to identify high correlation between independent variables. Thus, it can be concluded that there is no indication of strong multicollinearity between Green Accounting and CSR in the research model. This indicates that the two independent variables possess relatively distinct informational characteristics, allowing them to be used together in the regression model.

Heteroskedasticity Test

The heteroscedasticity test is conducted to determine whether there is inequality in the residual variances within the regression model. A well-specified regression model is expected to exhibit relatively constant residual variance meaning it does not suffer from heteroscedasticity. In this study, the White Test is used to test for heteroscedasticity.

Table 6. Heteroskedasticity Test Results

White Test Indicator	Mark
F-statistic	0,054282
Prob. F(4,55)	0,9943
Obs*R-squared	0,235935
Prob. Chi-Square(4)	0,9936
Scaled explained SS	1,815411
Prob. Chi-Square(4)	0,7697

Based on Table 6, the White test results show an Obs*R-squared value of 0.235935 with a Chi-Square probability of 0.9936. This probability value exceeds 0.05; therefore, there is no evidence of heteroskedasticity in the research model. These results are further supported by the F-statistic probability value of 0.9943, which is also greater than 0.05. Thus, the research model is deemed to satisfy the heteroskedasticity test criteria based on the White Test.

Normality Test

Normality testing is conducted to determine whether the residuals in the research model follow a normal distribution. This testing is necessary to examine the characteristics of the residual distribution prior to interpreting the statistical test results.

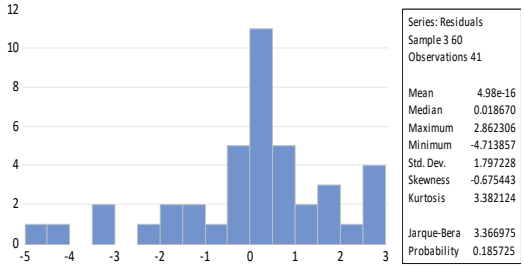

***Figure 1**. Normality Test Results*

Based on the normality test results, a Jarque-Bera value of 3.366975 was obtained, with a probability value of 0.185725. Since this probability value exceeds 0.05, the study's residuals are considered normally distributed according to the applied testing criteria. Thus, the normality test results indicate no normality issues that would compromise the regression analysis process. Overall, the assumption test results show no indication of strong multicollinearity or heteroskedasticity in the research model. Furthermore, the residuals satisfy the normality criteria. These results provide the basis for proceeding to the regression analysis and hypothesis testing stages.

Regression Analysis Results

Regression analysis was carried out to determine the direction and magnitude of the relationship between Green Accounting and Corporate Social Responsibility (CSR) on the financial performance of energy sector companies. Regression analysis is also used as a basis for testing research hypotheses, both to determine the influence of each independent variable partially and their influence together. Based on the results of data processing using EViews, the following regression equation is obtained:

$$Y = -56.228{,}8851 + 63.110{,}1385X1 - 6.920{,}1940X2$$

The equation indicates that the constant value of -56,228.8851 implies that if Green Accounting and CSR are held constant (i.e., undergo no change), the financial performance value predicted by the model corresponds to that negative figure. In a regression equation, the constant serves as the model's baseline value when all independent variables are at zero.

The Green Accounting coefficient of 63,110.1385 indicates a positive relationship between Green Accounting and financial performance. This means that, within the research model, an increase in the Green Accounting value is accompanied by an increase in financial performance, assuming the CSR variable remains constant. Conversely, the CSR coefficient of -6,920.1940 indicates a negative relationship; this implies that an increase in the CSR value within the model is accompanied by a decline in financial performance, assuming the Green Accounting variable remains constant. However, the direction of these coefficients alone cannot be used to establish the existence of a significant effect without first examining the results of statistical testing.

***Table 7.** Regression Analysis Results*

Variable	Coefficient	t-Statistic	Probability
C	-56.228,8851	-2,348982	0,0224
Green Accounting (X1)	63.110,1385	2,534317	0,0141
CSR (X2)	-6.920,1940	-0,245974	0,8066

Based on Table 7, the Green Accounting variable has a coefficient of 63,110.1385, a t-statistic of 2.534317, and a probability of 0.0141. Since the probability value is less than 0.05, Green Accounting has a significant influence on financial performance. The positive coefficient indicates that the influence of Green Accounting on financial performance within the research model is positive in direction.

The Corporate Social Responsibility variable has a coefficient of -6,920.1940, a t-statistic of -0.245974, and a probability of 0.8066. As the probability value exceeds 0.05, CSR does not have a significant influence on financial performance. Thus, although the CSR coefficient indicates a negative direction, the results do not provide sufficient statistical evidence to conclude that CSR affects the company's financial performance. These regression results subsequently serve as the basis for partial hypothesis testing. A more specific analysis of the hypotheses regarding Green Accounting and CSR is presented in the discussion and hypothesis testing section.

Hypothesis Testing

Hypothesis testing was conducted to determine the impact of Green Accounting and Corporate Social Responsibility (CSR) on the financial performance of energy sector companies. The testing was performed at a 5% significance level ($\alpha = 0.05$). A hypothesis is accepted if the probability value is less than 0.05, whereas a probability value greater than 0.05 indicates that the variable's effect is not significant.

The Effect of Green Accounting on Financial Performance

Based on the test results, Green Accounting has a coefficient of 63,110.1385, a t-statistic of 2.534317, and a probability value of 0.0141. A probability value of less than 0.05 indicates that Green Accounting has a significant effect on financial performance. The positive coefficient indicates a positive relationship between Green Accounting and financial performance. Thus, H1 is accepted. These results demonstrate that the implementation of Green Accounting is positively associated with the financial performance of energy sector companies. This finding aligns with research by previous studied, which found that Green Accounting influences corporate financial performance (Tjandrakirana Dp et al., 2024). Implementing Green Accounting can be part of a company's efforts to consider environmental aspects within its operational activities. For energy sector companies, attention to environmental aspects is particularly relevant, given the link between their operations, resource usage, and environmental impact.

The Impact of Corporate Social Responsibility on Financial Performance

The test results indicate that Corporate Social Responsibility (CSR) has a coefficient of -6,920.1940, a t-statistic of -0.245974, and a probability value of 0.8066. Since the probability value exceeds 0.05, CSR does not have a significant effect on financial performance; thus, H2 is rejected. These results suggest that the level of CSR disclosure did not exert a direct influence on the company's financial performance during the study period. Although CSR activities may relate to stakeholder relationships and corporate reputation, such benefits are not necessarily reflected directly in financial performance within the same period. These findings align with the study by previous studied, which found that CSR has no effect on financial performance (Tjandrakirana Dp et al., 2024).

The Influence of Green Accounting and Corporate Social Responsibility on Financial Performance

The simultaneous test results show an F-statistic value of 3.213313 with a probability of 0.047743. Since this probability value is less than 0.05, Green Accounting and CSR jointly exert a significant influence on financial performance. Thus, H3 is accepted. These results indicate that Green Accounting and CSR simultaneously have a significant impact on the financial performance of energy sector companies. Green Accounting relates to a company's attention to environmental aspects, whereas CSR pertains to corporate responsibility regarding social aspects and stakeholders. These two aspects can serve as complementary elements in the implementation of corporate sustainability practices. This finding aligns with the study by previous studied, which examined energy sector companies listed on the Indonesia Stock Exchange and demonstrated the link between Green Accounting, CSR, and financial performance (Rusniar & Tullah., 2025).

Coefficient of Determination

Based on the data analysis, an Adjusted R-squared value of 0.070909 (or 7.09%) was obtained. This indicates that Green Accounting and Corporate Social Responsibility account for 7.09% of the variation in corporate financial performance, while the remaining 92.91% is explained by factors outside the research model. These results demonstrate that corporate financial performance is influenced not only by Green Accounting and CSR but also by other factors such as operational conditions, capital structure, company size, and other economic variables (Rusniar & Tullah., 2025).

Discussion

Green Accounting and Financial Performance

The results show that Green Accounting has a positive and significant effect on financial performance, with a probability value of 0.0141. This finding indicates that the integration of environmental considerations into accounting practices may support financial performance by improving environmental cost management and resource efficiency. This is particularly relevant for energy-sector companies whose activities are closely associated with natural resources and environmental risks. The finding is consistent with previous research showing a positive relationship between Green Accounting and financial performance. The previous studied provide empirical evidence regarding the relationship between Green Accounting and financial performance (Endiana et al., 2020). While specifically demonstrate the relevance of Green Accounting to financial performance in energy companies (Basyir et al., 2026). More recent evidence from the previous studied also reports a positive and significant effect of Green Accounting on financial performance (Salsabila & Munari, 2026).

However, previous findings are not completely consistent. The previous studied reported insignificant effects of Green Accounting on profitability or financial performance (Nurrasyidin et al., 2024; Riski et al., 2025). This variation may be associated with differences in industry characteristics, measurement approaches, and observation periods. The findings of the previous studied further suggest that the relationship between Green Accounting and financial performance can involve environmental performance as an important mechanism (Suprihatin et al., 2025). Therefore, the results support H1, indicating that Green Accounting has a positive and significant effect on the financial performance of energy-sector companies.

Corporate Social Responsibility and Financial Performance

The results indicate that CSR does not have a significant effect on financial performance, with a probability value of 0.8066. This finding suggests that CSR disclosure did not directly influence ROA during the observation period. Although CSR activities may generate benefits through improved reputation, stakeholder relationships, and corporate legitimacy, these benefits may require a longer period to be reflected in accounting-based financial performance. This finding is consistent with the previous studied, which report insignificant relationships between CSR and financial performance (Nurrasyidin et al., 2024; Riski et al., 2025). However, the empirical evidence remains mixed. For example, found that CSR had a negative effect on financial performance, while other studies have reported positive relationships (Itan et al., 2024). This variation indicates that the financial consequences of CSR may depend on the characteristics of the industry, the quality of disclosure, and the period required for CSR benefits to materialize. The insignificant result does not necessarily indicate that CSR is unimportant. Rather, CSR may contribute more strongly to non-financial outcomes, such as stakeholder relationships and corporate legitimacy, than to short-term ROA. The broader literature also indicates that the relationship between CSR and financial performance is influenced by contextual factors (Busch & Friede, 2018; Hufazsyah et al., 2026; Wang et al., 2016). Therefore, H2 is rejected, indicating that CSR does not have a significant effect on the financial performance of energy-sector companies.

Green Accounting, CSR, and Financial Performance Simultaneously

The simultaneous test shows that Green Accounting and CSR jointly have a significant effect on financial performance, with a probability value of 0.047743. This finding indicates that environmental and social practices may have greater explanatory value when considered together rather than individually. The result is consistent with previous studies examining Green Accounting and CSR simultaneously. The previous studied found evidence of a simultaneous relationship between these sustainability-related practices and company performance (Anggraeni & Dewi, 2022; Suryani & Jumaida, 2022). More recent research has also continued to examine the combined role of Green Accounting and CSR in explaining financial performance (Sari & Putra, 2026; Suprihatin et al., 2025).

These findings suggest that Green Accounting and CSR can complement each other within a broader sustainability strategy. Green Accounting focuses on environmental costs and resource management, whereas CSR emphasizes the company's social and stakeholder responsibilities. Considering both dimensions simultaneously may therefore provide a more comprehensive perspective on corporate sustainability and financial performance. Therefore, H3 is accepted, indicating that Green Accounting and CSR jointly have a significant effect on the financial performance of energy-sector companies.

Conclusion

This study examined the effect of Green Accounting and Corporate Social Responsibility (CSR) on the financial performance of energy-sector companies listed on the Indonesia Stock Exchange during 2019-2024. The results indicate that Green Accounting has a positive and significant effect on financial performance, as reflected by a probability value of 0.0141, which is below the 5% significance level. This finding suggests that the implementation of environmental accounting practices may contribute to improved financial performance by supporting better environmental cost management and resource utilization.

In contrast, CSR does not have a significant effect on financial performance, with a probability value of 0.8066. This result indicates that CSR disclosure during the observation period did not directly translate into improved financial performance. The benefits of CSR activities may require a longer period to be reflected in financial outcomes or may depend on other organizational and market factors. Nevertheless, Green Accounting and CSR jointly have a significant effect on financial performance, as indicated by an F-statistic probability of 0.047743. The model has an Adjusted R-squared of 7.09%, indicating that other factors outside the model explain most of the variation in financial performance.

This study has several limitations. The sample is limited to 10 energy-sector companies and six years of observations, which may restrict the generalizability of the findings. In addition, Green Accounting is measured using a dummy variable, while financial performance is represented only by ROA. Future research is therefore encouraged to use larger samples, longer observation periods, alternative financial performance measures, and more comprehensive measures of Green Accounting and CSR. Future studies may also consider additional variables, such as environmental performance, corporate governance, firm size, and sustainability reporting, to provide a broader explanation of corporate financial performance.

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