

The Impact of Green Accounting Implementation, Corporate Social Responsibility (CSR), and Green Innovation on the Value of Companies in the Energy Sector

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Abstract

This study aims to analyze the influence of green accounting, green innovation and corporate social responsibility on corporate value. This research is a quantitative study with an empirical approach conducted on energy sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2023 period. The sampling technique used in this study was purposive sampling based on certain predetermined criteria, resulting in 51 analysis units. The data used are secondary data obtained from annual reports and company sustainability reports. The data analysis method used is multiple linear regression analysis to test the effect of each independent variable on corporate value, proxied by Tobin's q . The results show that green accounting, green innovation and corporate social Corporate responsibility has a significant influence on corporate value. social Responsibility has a positive influence, indicating that transparency of social activities through good disclosure standards can strengthen a company's legitimacy and provide a positive signal to investors, increasing the company's market value. Meanwhile, green accounting and green Innovation has a significant, negative, influence on firm value. This indicates that investors in the energy sector still view environmental costs and investments in green innovation as operational burdens and financial risks that can reduce a company's net profit in the short term. These findings are expected to contribute to the development of the literature and provide consideration for company management and investors in understanding the strategic factors that influence firm value in the energy sector.

Keywords: Green Accounting ; Green Innovation ; Corporate Social Responsibility ; Company Values.

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INTRODUCTION

The current business world is experiencing rapid progress, marked by the emergence of numerous companies in diverse sectors. This situation has led to increasingly intense competition between companies. Generally, these goals are divided into two: short-term goals focused on profitability and long-term goals oriented towards increasing company value. Optimal performance will impact company value and share price, which ultimately reflects the level of prosperity for shareholders.

The energy sector plays a strategic role in supporting the transition to an environmentally friendly and sustainable economy, in line with Indonesia's commitment to reducing carbon emissions and addressing the challenges of climate change. According to data from the Ministry of Environment and Forestry (KLHK), the energy and transportation sectors dominate greenhouse gas emissions in Indonesia, contributing 50.6% of total national emissions in 2022. Furthermore, a report from the Energy Institute noted that in 2022, Indonesia produced approximately 691.97 million tons of CO₂ from the energy sector, placing it as the 6th largest contributor of energy sector carbon emissions in the world.

Company value reflects investors' perceptions of a company's success, which is generally linked to its stock price. When a company's stock price increases, this directly impacts the company's value. This increase reflects high investor interest in investing, which ultimately drives overall company value growth (Astuti et al., 2023).

The first factor that can influence firm value is environmental accounting. According to Dwianto et al. (2023), environmental accounting is a key element of sustainability accounting that demands transparency regarding the environmental impacts of a company's operations as a form of commitment to social responsibility. The implementation of sound environmental accounting strengthens corporate legitimacy and supports the triple bottom line concept, which emphasizes a balance between profit, people, and planet to achieve sustainability and ultimately enhance the company's value in the eyes of stakeholders. Research conducted by Ni Wayan Mega Mirnawati and Dewi (2023) states that green accounting significantly influences company value. However, this research contradicts research conducted by Sapulette and Limba (2021), which stated that the results of their study were green. accounting has no effect on company value.

The second factor that influences company value is green innovation. Green innovation Environmental innovation is a company's strategic approach to integrating environmental considerations into all its operational activities, from production to product distribution (Fanda & S, 2024). Research conducted by Yuliandhari et al (2023) stated that green Innovation has a simultaneous influence on company value. Meanwhile, research conducted by Meilani and Sukmawati (2023) states that green innovation does not affect company value.

The last factor that influences company value is corporate social responsibility (CSR). According to Sugiyarti (2023), Corporate Social Corporate Social Responsibility (CSR) is a manifestation of a company's commitment to social responsibility. Research conducted by Sulbahri (2021) shows that CSR influences company value. This contradicts research conducted by Hasanah & Oktavianna (2025), which stated that CSR has no effect on company value. Given this inconsistency with previous research, a more in-depth study and analysis of several factors influencing company value, such as green accounting, green innovation and CSR disclosure.

The theoretical basis that strengthens this research includes the Legitimacy Theory (Legitimacy). Theory). According to Dowling and Pfeffer (1975), legitimacy theory is a state when the value system of an organizational entity is consistent with the value system of the wider society. Research conducted by Darsono (2024) shows that companies implement ESG (Environmental, Social, Governance) practices, green accounting, and CSR disclosure are not only for internal efficiency, but also to obtain or maintain social legitimacy from the community and stakeholders.

Furthermore, the Stakeholder Theory, explained by R. Edward Freeman (1984), states that companies are not only responsible to shareholders but also to all parties with an interest in the company's operations. Stakeholder involvement is a crucial element in maintaining the continuity of company operations (Ningwati et al., 2022).

Signal Theory (signaling) The theory) proposed by Michael Spence (1973) explains how one party that has more information can send signals to other parties to reduce information asymmetry. Based on this theory, the disclosure of green accounting and corporate social Corporate social responsibility (CSR) can be considered as a signal sent by a company to investors as an indication of good management, low operational risk, and future sustainability prospects.

METHODOLOGY

The type of research used in this study is quantitative, namely a type of research that uses data in the form of numbers and statistical analysis to answer research questions, test hypotheses, and find relationships between variables. The data used in this study is secondary data, namely by looking at annual reports. report) and sustainability report The study (report) covers energy sector companies listed on the Indonesia Stock Exchange during the 2021–2023 period. Data in this study were obtained from the official websites of the companies concerned and from the Indonesia Stock Exchange website www.idx.co.id. The population of this study was 83 energy sector companies listed on the Indonesia Stock Exchange during the observation period, from 2021 to 2023. The sampling technique used in this study was the purposive sampling method. The sampling criteria were: energy sub-sector companies listed on the IDX consecutively during the research period, 2022-2023; companies that published financial reports and sustainability reports during the 2021-2023 period; and companies that received a rating in the Corporate Performance Rating Program (PROPER) for environmental management during the 2022-2023 period.

The data collection method in this study uses documentation techniques. The required data is secondary data in the form of annual financial reports and sustainability reports from companies obtained from the official websites of the companies used in the research sample and the official website of the Indonesia Stock Exchange (IDX). The dependent variable in this study is firm value, which is the market's perception of the company's overall performance and future prospects, as reflected in its share price. In this study, firm value is measured using the Tobin's Q ratio.

The first independent variable is green accounting that is measured based on the extent to which a company recognizes, records, and discloses costs and activities related to environmental management, such as waste management, energy efficiency, and natural resource conservation. Green measurement accounting is measured using the proxy ratio between the company's total environmental costs (community involvement costs and the amount spent on environmental protection) and net profit after tax.

The second independent variable is green innovation (green Green innovation is a form of technological innovation in the production process that focuses on environmental aspects so that companies can achieve sustainability and long-term profitability. Green innovation is measured by disclosure indicators including: ISO 14001 certification, use of environmentally friendly materials, use of materials that increase energy and resource efficiency, and development of environmentally friendly products and packaging.

The third independent variable is Corporate Social Corporate Social Responsibility (CSR) is a form of corporate social responsibility towards all parties involved. CSR disclosure measurement is based on the GRI (Global Reporting Standards) standards. Initiative) version 2021 with a total of 117 indicator items. Measurements were conducted using a quantitative approach, assigning a score of 1 if a category was listed and 0 if it was not disclosed.

Table 1. List of GRI Standards CSR Disclosure Indicators

General Disclosure	
A.	Organizational Profile and Reporting Practices
1.	Organizational details
2.	Entities included in the organization's sustainability reporting
3.	Reporting period, frequency and contact point
4.	Restatements of information
5.	External assurance
B.	Activities and Workers
6.	Activities, value chain and other business relationships
7.	Employees
8.	Workers who are not employees
C.	Governance
9.	Governance structure and composition
10.	Nomination and selection of the highest governance body
11.	Chair of the highest governance body
12.	Role of the highest governance body in overseeing the management of impacts
13.	Delegation of responsibility for managing impacts
14.	Role of the highest governance body in sustainability reporting
15.	Conflicts of interest
16.	Communication of critical concerns
17.	Collective knowledge of the highest governance body
18.	Evaluation of the performance of the highest governance body
19.	Remuneration policies

20.	Process to determine remuneration
21.	Annual total compensation ratio
D.	Strategy, Policies and Practices
22.	Statement on sustainable development strategy
23.	Policy commitments
24.	Embedding policy commitments
25.	Processes to remediate negative impacts
26.	Mechanisms for seeking advice and raising concerns
27.	Compliance with laws and regulations
28.	Membership associations
29.	Approach to stakeholder engagement
30.	Collective bargaining agreements
	Material Topics
31.	Process to determine material topics
32.	List of material topics
33.	Management of material topics
34.	Direct economic value generated and distributed
35.	Financial implications and other risks and opportunities due to climate change
36.	Defined benefit plan obligations and other retirement plans
37.	Financial assistance received from government
38.	Ratios of standard entry level wage by gender compared to local minimum wage
39.	Proportion of senior management hired from the local community
40.	Infrastructure investments and services supported
41.	Significant indirect economic impacts
42.	Proportion of spending on local suppliers
43.	Operations assessed for risks related to corruption
44.	Communication and training about anti-corruption policies and procedures
45.	Confirmed incidents of corruption and actions taken
46.	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices
47.	Approach to tax
48.	Tax governance, control, and risk management
49.	Stakeholder engagement and management of concerns related to tax
50.	Country-by-country reporting
51.	Materials used by weight or volume
52.	Recycled input materials used
53.	Reclaimed products and their packaging materials
54.	Energy consumption within the organization
55.	Energy consumption outside of the organization
56.	Energy intensity
57.	Reduction of energy consumption
58.	Reductions in energy requirements of products and services
59.	Interactions with water as a shared resource
60.	Management of water discharge-related impacts
61.	Water withdrawal
62.	Water discharge
63.	Water consumption
64.	Operational sites owned, leased, managed in, or adjacent to, protected areas
65.	Significant impacts of activities, products and services on biodiversity

66.	Habitats protected or restored
67.	IUCN Red List species and national conservation list species with habitats in areas affected by operations
68.	Direct (Scope 1) GHG emissions
69.	Energy indirect (Scope 2) GHG emissions
70.	Other indirect (Scope 3) GHG emissions
71.	GHG emissions intensity
72.	Reduction of GHG emissions
73.	Emissions of ozone-depleting substances (ODS)
74.	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions
75.	Waste generation and significant waste-related impacts
76.	Management of significant waste-related impacts
77.	Waste generated
78.	Waste diverted from disposal
79.	Waste directed to disposal
80.	New suppliers that were screened using environmental criteria
81.	Negative environmental impacts in the supply chain and actions taken
82.	New employee hires and employee turnover
83.	Benefits provided to full-time employees
84.	Parental leave
85.	Minimum notice periods regarding operational changes
86.	Occupational health and safety management system
87.	Hazard identification, risk assessment, and incident investigation
88.	Occupational health services
89.	Worker participation, consultation, and communication on occupational health and safety
90.	Worker training on occupational health and safety
91.	Promotion of worker health
92.	Prevention and mitigation of occupational health and safety impacts
93.	Workers covered by an occupational health and safety management system
94.	Work-related injuries
95.	Work-related ill health
96.	Average hours of training per year per employee
97.	Programs for upgrading employee skills and transition assistance programs
98.	Percentage of employees receiving regular performance and career development reviews
99.	Diversity of governance bodies and employees
100.	Ratio of basic salary and remuneration of women to men
101.	Incidents of discrimination and corrective actions taken
102.	Operations and suppliers in which the right to freedom of association may be at risk
103.	Operations and suppliers at significant risk for incidents of child labor
104.	Operations and suppliers at significant risk for incidents of forced or compulsory labor
105.	Security personnel trained in human rights policies or procedures
106.	Incidents of violations involving rights of indigenous peoples
107.	Operations with local community engagement, impact assessments, and development programs
108.	Operations with significant actual and potential negative impacts on local communities
109.	New suppliers that were screened using social criteria

110.	Negative social impacts in the supply chain and actions taken
111.	Political contributions
112.	Assessment of the health and safety impacts of product and service categories
113.	Incidents of non-compliance concerning the health and safety impacts of products and services
114.	Requirements for product and service information and labeling
115.	Incidents of non-compliance concerning product and service information and labeling
116.	Incidents of non-compliance concerning marketing communications
117.	Substantiated complaints concerning breaches of customer privacy and losses of customer data

The research technique used in this study is a quantitative approach with the Statistical program. Package For Social Science (SPSS). In this study, to obtain test results using descriptive statistical analysis, classical assumption tests (normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test), as well as hypothesis testing using multiple linear regression analysis. Multiple linear regression analysis is used to assess the simultaneous influence of several independent variables on one dependent variable, while estimating the direction and strength of the relationship of each independent variable to the dependent variable with the following formula:

RESULTS AND DISCUSSION

Description of Research Object

This research uses a quantitative research method, namely research that processes research data using a statistical approach. This research was conducted with the aim of analyzing the influence of green accounting, green innovation and corporate social responsibility towards company value. The data used in this study is secondary data, using the documentation method, the data consists of annual reports report) and sustainability report report) which can be accessed or obtained through the official website of the Indonesia Stock Exchange (BEI) or can be accessed through the official website of the company used as a sample.

The objects used in this study were energy sector companies listed on the Indonesia Stock Exchange (IDX) during the 2021-2023 period. Based on the predetermined sample criteria using the purposive sampling method, 17 samples were obtained for each year. The total sample used in this study was 51 observational data (17 companies x 3 years). Based on the results of data observations on all samples, no extreme values (outliers) were found, so the number of data that met the criteria and were used in the analysis remained at 51.

Table 2. Sample Selection Results with Purposive Sampling

Criteria	Amount
Number of energy companies listed on the Indonesia Stock Exchange during the 2021-2023 observation period	84

Criteria	Amount
Number of companies that did not publish annual financial reports during the study period	(18)
Number of companies that did not publish a complete sustainability report during the study period	(28)
Companies that do not provide complete information required by researchers during the research period	(21)
Samples that meet the criteria for one year	17
Total units of analysis for three years (17 x 3)	51
Outlier	(0)
Total analysis units for the five years processed	51

Descriptive Statistics

Table 3. Results of Descriptive Statistical Analysis

Variables	N	Minimum	Maximum	Mean	Std. Dev
Green Accounting	51	-0.166	1,752	0.109	0.315
Green Innovation	51	0.500	1,000	0.799	0.150
CSR	51	0.854	1,000	0.633	0.272
Company Values	51	0.487	1,549	0.939	0.231

Based on the table of descriptive statistical test results, it shows that the number of analyses in this study is 51 analysis units. Green accounting (X1) which is proxied by environmental costs divided by net profit has a minimum value of -0.16619 and a maximum value of 1.75278 with a standard deviation of 0.31527. The average value of green accounting (X1) is 0.16619 and a maximum value of 1.75278 with a standard deviation of 0.31527. The accounting ratio for energy sector companies during the 2021–2023 period was 0.10950. This indicates that, on average, sample companies allocated 10.95% of their total net profit to environmental costs. The negative minimum value (-0.16619) indicates that some companies in the sample experienced a net loss during the observation period, resulting in a negative environmental cost-to-net-profit ratio.

Green variable Innovation (X2) which is measured using four indicators (ISO 14001 certification, use of environmentally friendly materials, energy efficiency, and development of environmentally friendly packaging) has a minimum value of 0.50000 and a maximum value of 1.00000 with a standard deviation of 0.15016. The average value of green The green innovation index for energy sector companies during the 2021–2023 period was 0.7990. These results indicate that, on average, the sample companies met 79.90% of the total green innovation criteria established in this study.

Corporate variables social Responsibility (X3), proxied by the GRI Standards disclosure index of 117 items, has a minimum value of 0.08547 and a maximum value of 1.00000 with a standard deviation of 0.27267. The average value of CSR disclosure in energy sector companies for the 2021–2023 period is 0.63315. These results indicate

that on average, sample companies have disclosed approximately 63.32% or equivalent to 74 items of the total 117 expected social responsibility indicators.

The firm value variable (Y) proxied using Tobin's Q has a minimum value of 0.48793 and a maximum value of 1.54981 with a standard deviation of 0.23121. The average value of Tobin's Q for energy sector companies for the 2021–2023 period is 0.93987. This average value approaching 1 indicates that, in general, the market provides a fairly fair assessment of the assets of energy sector companies, although technically a value below 1 may indicate that the company's shares are undervalued or that management has not optimally managed its assets to create added value for shareholders.

Classical Assumption Test

normality test is used to test whether the residual values are normally distributed or not. To determine whether the residual values are normal or not, it can be seen from the significance value of the calculated results. The normality test in this study uses one sample Kolmogorov-Smirnov test contained in table 4.

Table 4. Normality Test Results

One-Sample Kolmogorov-Smirnov Test	
	Unstandardized Residual
N	120
Asymp. Sig. (2-tailed)	0.175 ^c

one-sample testing Kolmogorov-Smirnov, the significance value (asymp. Sig. 2-tailed) shows a figure of 0.175. Statistically, this value is smaller than 0.05, so it can be concluded that the residual data in this regression model is normally distributed and passes the normality test.

multicollinearity test is used to examine the relationship between two or more variables in a multiple linear regression model. The multicollinearity test in this study was conducted by examining the variance values. inflation factor (VIF) and tolerance value (TF). The basis for decision making in multicollinearity testing is if the significance value of tolerance value (TF) > 0.10 and variance inflation factor (VIF) < 10 then the data does not experience multicollinearity.

Table 5. Multicollinearity Test Results

Variables	Tolerance	VIF	Information
Green Accounting	0.947	1,056	Not occur Multicollinearity
Green Innovation	0.792	1,262	Not occur Multicollinearity
CSR	0.918	1,222	Not occur Multicollinearity

Based on the test results above, it shows that all independent variables have a tolerance of more than 0.10 and a VIF value of less than 10, so it can be concluded that the regression model is free from multicollinearity.

heteroscedasticity test is used to test whether there is inequality in residual variance for a linear regression model. The heteroscedasticity test used in this study is the Abresid test. The basis for decision making in the Abresid test is that if the significance value is > 0.05 , heteroscedasticity does not occur. Conversely, if the significance value is < 0.05 , heteroscedasticity symptoms occur.

Table 6. Heteroscedasticity Test Results

Variables	Sig. Value	Information
Green Accounting	0.617	There is no Heteroscedasticity
Green Innovation	0.231	There is no Heteroscedasticity
CSR	0.597	There is no Heteroscedasticity

the heteroscedasticity test in the table above, it shows that all variables have a significance value greater than 0.05, so it can be concluded that the regression model does not contain heteroscedasticity.

autocorrelation test is used to test whether there is a correlation between the confounding errors in the previous t-1 period in the linear regression model. The autocorrelation test aims to determine the correlation of variables in the time change prediction model. The autocorrelation test in this study uses the Durbin-Watson (DW) test. The basis for decision making in the Durbin-Watson (DW) test is if the upper limit value (DU) $<$ Durbin-Watson (DW) value $<$ 4-DU then there is no autocorrelation.

Table 7. Autocorrelation Test Results

You	Durbin-Watson	4-du	Conclusion
1.6754	1,769	2,3246	Not occur Autocorrelation

Based on the test results above, the DW (Durbin-Watson) value was obtained at 1.769. This shows that the upper limit value (DU) $<$ Durbin-Watson (DW) $<$ 4-DU or $1.6754 < 1.769 < 2.3246$, so the data does not show any autocorrelation symptoms.

Hypothesis Test Results

The results of multiple linear regression were carried out using the SPSS 25 program, as detailed in table 8 below:

Table 8. Multiple Linear Regression Test Results

	Unstandardized Coefficient		Standardized Coefficient.	t	Sig.
	B	Std. Error	Beta		
(Constant)	1,206	0.167		7,232	0,000
Green Accounting	-0.228	0.096	-0.311	-2,365	0.033
Green Innovation	-0.551	0.221	-0.358	-2,492	0.016
CSR	0.314	0,120	0.371	2,662	0.012

Based on table 8 above, a regression equation can be created that will complement the results found in this study:

The constant value of 1.206 shows that if the green variable accounting, green innovation and corporate social responsibility is assumed to have a value of 0 (zero), then the company value proxied by Tobin's Q is predicted to be 1.206. The value of the green coefficient accounting of -0.228. This shows that if the green variable If accounting increases by 1%, the company's value is predicted to decrease by 0.228%, assuming the other independent variables remain constant. The green coefficient value innovation of -0.551. This shows that if the green variable If innovation increases by 1%, the company's value will actually decrease by 0.551%, assuming the other independent variables remain constant. The value of the corporate coefficient social responsibility of 0.314. This shows that if the disclosure of corporate social If the level of responsibility increases by 1%, the company's value will increase by 0.314%, assuming the other independent variables remain constant. The error value is 0.20907, which means that the level of error or possible unknown deviation in the regression model is 0.20907.

Table 9. F Test Results

	Model	F	Sig.
1	Regression	4,716	,006 ^b
	Residual		
	Total		

Based on Table 9, the results of the simultaneous F test show a significance value of 0.000. The significance value produced by the F test is less than 0.05, so it can be concluded that the multiple regression model has met the requirements and can be said to be a fit regression model.

Table 10. Results of the Determinant Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.481 ^a	0.231	0.182	0.2090721725

Table 10 above shows that the Adjusted R Square value is 0.182, or 18.2%. This indicates that the independent variables can explain the variation in the dependent variable, namely company value, by 0.182, or 18.2%, while the remaining 81.8% is explained by other variables not included in this study.

Table 11. T-Test Results

Variables	Sig.	Information
Green Accounting	0.022	H ₁ Accepted
Green Innovation	0.016	H ₂ Accepted
CSR	0.012	H ₃ Accepted

The results of the t-statistic test show the magnitude of the influence of the independent variables individually on the dependent variable. The results obtained, based on table IV.10, are as follows:

1. Green variable accounting on company value: Based on the results of data processing, the calculated t value was -2.365 with a significance value of 0.022. Since the Sig. value of $0.022 < 0.05$, it can be concluded that the green variable accounting has a significant influence on company value as proxied by Tobin's Q.
2. Green variable innovation on company value: Based on the results of data processing, the calculated t value was -2.492 with a significance value of 0.016. Since the Sig. value of $0.016 < 0.05$, it can be concluded that the green variable Innovation has a significant influence on company value as proxied by Tobin's Q.
3. Corporate variables social responsibility on corporate value: Based on the results of data processing, the calculated t value was 2.622 with a significance value of 0.012. Since the Sig. value of $0.012 < 0.05$, it can be concluded that the corporate social Responsibility has a significant influence on company value as proxied by Tobin's Q.

Green accounting has an impact to mark company

In a way theoretical, influence significant with direction negative This indicates that allocation cost environment by the company sector energy viewed by investors as additive burden direct operations reduce profit clean company. In the sector energy that has risk operational high, management often faced with pressure For guard efficiency costs to maintain margin profit in the middle fluctuations price global commodities. Therefore, the high costs of environmental conservation actually put pressure on short-term financial performance, which was then responded negatively by market participants through declining share prices.

Based on legitimacy theory, although companies seek social recognition through environmental cost reporting, investors appear to remain pragmatic in assessing the energy sector. While environmental cost disclosures averaged 10.95%, they demonstrate compliance efforts, but the market tends to interpret these expenditures as a reduction in shareholder dividend rights. Under these conditions, environmental legitimacy has not been able to be converted into a competitive advantage that can instantly increase a company's market value because it is considered not to contribute directly to core earnings. From a stakeholder theory perspective, there is an imbalance between meeting public expectations regarding the environment and investor expectations regarding profitability. The regression coefficient value of -0.228 confirms that each increase in environmental cost allocation actually decreases Tobin's Q for energy sector companies in the 2021–2023 period. The ineffectiveness of green accounting in increasing company value indicates that the

Indonesian capital market still views environmental issues as purely compliance costs, rather than strategic investments capable of creating added value for company assets. The results of this study are in line with research by Margie (2024), Larastiwi and Setiadi (2024), Faranika and Illahi (2023), and Yani and Wijaya (2024) which stated that green accounting influences company value.

Green innovation influences company value

Based on the t-test results, the green innovation variable has a significance value of $0.016 < 0.05$ with a negative regression coefficient of -0.551 . These results indicate that green innovation has a significant effect on company value, but with a negative direction of influence. The test results show that green innovation has a significant effect with a negative direction on company value, which reflects the large financial risks that energy companies must bear when making technological transitions. Innovation in the form of environmentally friendly technology requires massive capital expenditure investments and has a very long payback period. The high intensity of green innovation with an average value of 79.90% in the sample indicates a strong operational commitment, but this actually suppresses the Tobin's Q ratio because investors are concerned about the stability of the company's cash flow in the short term.

signaling theory, companies' efforts to communicate green innovation strategies through annual reports appear to be perceived by investors as a signal of high risk of uncertainty. A coefficient value of -0.551 indicates that the market responds negatively to overly aggressive innovation activities in the energy sector. This is because the energy industry in Indonesia is still heavily dependent on conventional assets, so the transition to green production processes is considered to disrupt established production efficiency and increase the depreciation burden of new assets. Seen from stakeholder theory, energy companies face a dilemma between global demands for decarbonization and investor demands to maintain asset valuations. Green innovation is often viewed as a speculative project with unproven commercial results in the domestic market. The results of this study are in line with research by Imam et al. (2024), Nanda et al. (2025), Maria Br Tarigan and Dewi (2025), and Samanta Putra and Eni Indriani (2025), which state that green innovation variables influence company value.

Corporate social responsibility has an impact to mark company

Research result This show influence positive significant from CSR disclosure regarding mark company prove that not quite enough answer social is the most effective instrument for company energy for guard Market value. With a significance value of 0.012, investors highly value disclosure of information regarding a company's social activities. This is because CSR disclosure serves as a form of social insurance that can protect companies from potential boycotts, demonstrations, and legal sanctions that frequently affect energy sector operations in Indonesia.

According to legitimacy theory, CSR disclosure, with an average of 63.32%, reflects a company's success in aligning its operational values with societal norms. When a company is able to demonstrate a positive contribution to public welfare, society grants it a "social license to operate," which ultimately reduces non-financial risks. In accordance with signaling theory, good quality CSR disclosure sends a strong signal to the market that the company's management has transparent governance and long-term sustainability prospects. A positive coefficient value of 0.314 indicates that any increase in social responsibility transparency will directly increase the company's market value. The results of this study consistently support the findings of Labibah (2022), Kristanti (2022), Fana and Prena (2021), and Rinofah et al. (2021) who stated that that variables corporate social responsibility (CSR) has an impact positive to mark company.

CONCLUSION

The results of the t-test show that green accounting has a significant effect on company value with the regression coefficient showing a negative direction, which means that the higher the green Improper accounting practices in a company will lower the company's value. This indicates that investors still view environmental costs as a burden that reduces company profits, rather than a strategic investment capable of creating added value for the company's assets. Similarly, green innovation has a significant negative impact on company value, indicating that large investments in technology, ISO 14001 certification, and environmentally friendly materials in the energy sector are still viewed by the market as financial risks or long-term investment burdens that could disrupt the stability of the company's current cash flow.

In contrast to the previous variables, the t-test results indicate that corporate social responsibility (CSR) has a significant effect on company value, with the regression coefficient indicating a positive direction, meaning that the higher the CSR disclosure in a company, the higher the company's value. This indicates that disclosure of information regarding social activities based on the GRI Standards index is considered a positive signal that can strengthen the company's legitimacy and image in the eyes of investors, thereby increasing market confidence and the company's asset valuation. This finding confirms that disclosure of social responsibility activities remains an important factor in increasing market confidence in energy sector companies listed on the Indonesia Stock Exchange.

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