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The Effect of Environmental Performance, Audit Quality, and Greenwashing on Company Value in Energy Sector Companies listed on the Indonesia Stock Exchange

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ABSTRACT

Investigating the extent to which Environmental Performance, Audit Quality, and Greenwashing associated Company Value forms the primary objective of this quantitative investigation, which relies entirely on secondary records. Ninety energy sectors entities listed on the Indonesia Stock Exchange constitute with the target population, from which a purposive selection yielded ten organizations over the 2021-2025 timeframe, culminating in ten companies and fifty firm-year observations. Methodological evaluation encompasses descriptive analytics, classical assumption diagnostics, multiple linear regression modeling, partial and simultaneous parameter assessments, along with determination coefficient calculations. Empirical findings reveal that Environmental Performance is negatively and significantly associated with Company Value, indicated by a t-value of -3.790 < -2.0129 and a significance value of p < 0.001. Conversely, Audit Quality demonstrates no meaningful statistical consequence on Company Value, returning a calculated t-value of -1.878 > -2.0129 alongside a significance value of p = 0.067. Meanwhile, Greenwashing is positively associated with Company Value, substantiated by a calculated t-value of 3.691 > 2.0129 with a significance value of p = 0.001. Simultaneously, Environmental Performance, Audit Quality, and Greenwashing jointly significantly with Company Value, registering an F-value of 16.102 > 2.81, accompanied by a significance value of p < 0.001, the model explains 51.2% of the sample variation in Company Value R^2 = 0.512; adjusted R^2 = 0.480.

Keywords: Company Value, Environmental Performance, Audit Quality, Greenwashing, PROPER

INTRODUCTION

Endowed with abundant reserves of coal, petroleum, and natural gas, the domestic energy sector functions as a vital pillar supporting the national economy, thereby providing an ideal setting to examine Company Value under intensifying scrutiny for Environmental Performance, Audit Quality, and transparent sustainability reporting. Nevertheless, inherent environmental hazards, rigorous supervisory frameworks, and mounting stakeholder demands for authentic ecological stewardship characterize this industry. Discrepancies often emerge when organizations capitalize on superficial ecological claims without executing genuine operational reforms, thus breeding widespread apprehensions regarding Greenwashing. Consequently, regulatory bodies must direct focused attention toward this domain owing to its profound ecological and societal consequences.

Long-term corporate continuity heavily relies on Company Value as a primary metric, given that modern investment decisions transcend traditional financial statements to incorporate public market reactions toward sustainable business models. To capture this dynamic, the present investigation utilizes Tobin's Q as a proxy, evaluating the ratio between combined market equity plus debt and aggregate assets, which effectively encapsulates investor sentiment regarding future horizons rather than relying solely on fluctuating share prices. Such equity price instability frequently complicates capital allocation decisions for prospective investors (Oktaviani & Sinarwati, 2024).

Another determinant traditionally hypothesized to shape corporate worth is Environmental Performance, which denotes an enterprise's operational responsibility toward its ecological surroundings. Environmental performance are strongly related in Indonesian Energy enterprises because businesses with stronger environmental practices tend to control their waste reduction, energy efficiency measures, and sustainable sourcing. Scoring standards within PROPER encompass water pollution control, air quality preservation, waste management systems, environmental impact assessments, and reliable operational mechanisms (Aprianti et al., 2023). Through laws like PROPER, company that focus on environmental performance also gain a competitive edge in marketplace, and save operation expenses energy efficient procedures. Empirical investigations offer contrasting insights, where certain findings indicate an insignificant relationship between Environmental Performance and Company Value (Trenggono & Trisnaningsih, 2025), whereas alternative studies document a favorable and substantial impact (Adyaksana et al., 2024). Such empirical divergences highlight a persistent scholarly gap that motivates further empirical verification regarding this specific nexus.

Audit Quality emerges as an additional variable theorized to influence financial evaluation. This concept characterizes the rigorous execution of examination procedures by independent practitioners adhering to professional standards to uncover potential accounting irregularities or fraudulent reporting. Enterprises leverage high evaluation standards to enhance the trustworthiness of their financial disclosures, thereby mitigating information asymmetry risks for capital market participants (Putri & Trisnawati, 2024).

To manage potential information risks, independent audit firms are generally categorized into Big Four and Non-Big Four. In this study, the classification follows the audit firm that signed the auditor’s report of each company in each observation year, based on its international network affiliation (Deloitte, EY, KPMG, or PwC for the Big Four). Big Four affiliation is used only as a proxy for audit quality; it does not by itself assure the content of the sustainability report. While prior literature reports a positive and significant relationship between audit quality and firm value (Cecilia & Sjarief, 2021; Widyadi & Widiatmoko, 2023), contrasting evidence reports an insignificant relationship (Michelle et al., 2024), which motivates further examination.

Finally, Greenwashing constitutes a critical phenomenon examined for its potential influence on corporate valuation. Modern discourse surrounding sustainability reporting has escalated into a focal point for governmental bodies, investors, supervisory agencies, and society at large, demanding that commercial entities balance profitability with ecological accountability through transparent environmental, social, and governance disclosures. Such transparency heavily shapes clean economic systems, ecological technologies, sustainable financing structures, capital market dynamics, and investor confidence regarding long-term developmental goals (Sneideriene & Legenzova, 2025). This study extends the examination to selected energy companies by including environmental performance proxied by PROPER. Its distinction concerns three variables together in energy companies that consistently publish GRI based sustainability reports and participate in PROPER during 2021 - 2025.

LITERATURE REVIEW

Signalling Theory

Signaling theory functions as a mechanism for conveying precise information regarding operational challenges to secure investor confidence, elucidating how transparent corporate disclosures bridge information gaps between enterprises and capital providers (Rizqillah et al., 2024). Within investigations examining the linkages among Environmental Performance, Audit Quality, Greenwashing, and Company Value, this framework accounts for several corporate behaviors:

1. Demonstrating ecological dedication, where open disclosure verifies robust environmental management practices to elevate stakeholder trust and corporate worth.
2. Mitigating allocation hazards, whereby clarity regarding environmental metrics assists investors in navigating climate-related exposures to make sounder decisions.
3. Amplifying market attractiveness toward participants prioritizing environmental, social, and governance standards.

Stakeholder Theory

Stakeholder theory centers on organizational frameworks and governance practices addressing constituent interests alongside corporate commitments to foster sustainable development, explaining how management navigates varied stakeholder expectations (Parahdila et al., 2022).

Agency Theory

Agency theory captures the structural relationship between principals, acting as equity owners, and agents, functioning as managerial operators (Ghitti et al., 2024). This dynamic details how owners delegate operational authority to management, though divergent objectives frequently generate conflicts. When deceptive environmental claims or Greenwashing are uncovered, investor confidence erodes, impairing corporate worth. Consequently, aligning interests and maintaining effective communication between principals and agents remain essential for achieving organizational objectives and enhancing Company Value.

Legitimacy Theory

Legitimacy theory characterizes management systems oriented toward societal welfare, prioritizing informational transparency to cultivate constructive relations connecting enterprises with governmental authorities, individuals, and civil communities (M. A. Prasetyo & Shodiq, 2024).

Company Value

Company Value represents the aggregate assessment shareholders assign to an enterprise overall (Fitriani & Purnamasari, 2023). Higher valuations convey favorable signals to investors, serving as a measure of managerial success aligned with ownership objectives (Hidayat et al., 2021). Based on stakeholder theory, Company value is also referred to as market value because company value gived maximum benefits to shareholders if the company's stock price goes up (Siringo-ringo et al., 2023) . Quantified through Tobin's Q (Pradnyawati & Werastuti, 2024), this metric captures market evaluations regarding long-term operational viability and future prospects (Matthews et al., 2025).

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

Description:
MVE = Market value of outstanding shares (number of shares outstanding × closing price)
D = Total Liabilities
TA = Total Asset

Environmental Performance
Environmental performance reflects how effectively an enterprise preserves its ecological surroundings, as evaluated through achievements within the PROPER framework (Parahdila et al., 2022). Furthermore, this dimension is gauged through corporate initiatives aimed at maintaining ecological sustainability, encompassing energy conservation practices, proper waste handling, and adherence to environmental statutes (Rizqillah et al., 2024). Such oversight programs are administered by the Ministry of Environment to foster corporate compliance with established regulations governing environmental preservation and governance. Based on signalling, legitimacy and stakeholder theory, Companies with good environmental performance tend to gain social legitimacy, investor trust and disclosing environmental performance also boosts company transparency and affects market value (Josephine et al., 2026).

(Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup, 2009) concerning Environmental Protection and Management, Article 1, point 2, defines environmental protection and management as a systematic and integrated effort carried out to preserve the functions of the environment and prevent pollution and/or environmental damage, which includes control, covering pollution, utilization, maintenance, supervision, and law enforcement. Strong environmental performance increases the chances for a company to achieve sustainability, comply with legal requirements, and attract environmentally conscious investors (Sumarni & Marpaung, 2024). Five colors that use for PROPER rating system are as follow:

Table 1.
PROPER Environmental Performance Assessment

Color Indicator	Description	Score
Gold	Has consistently shown environmental excellence in its production process.	**5**
Green	Has managed the environment beyond what is required by regulations.	**4**
Blue	Has made efforts to manage the 3 required environments according to the rules.	**3**
Red	Environmental management efforts that do not comply with the required rules.	**2**
Black	Given to the person in charge of a business and/or activity who intentionally does something or is negligent, causing pollution and/or environmental damage.	**1**

Audit Quality
Audit Quality evaluates the thoroughness and precision of financial statement examinations conducted by independent professionals (Hana & Paramitha, 2024). When practitioners execute assessment procedures in strict adherence to established professional standards and ethical codes, the resulting financial disclosures are more

likely to be free from material misstatements or fraudulent distortions (Putri & Trisnawati, 2024).
This dimension is operationalized through a dummy variable, assigning a value of 1 to enterprises employing audit services from a Big Four public accounting practice, and 0 to those utilizing a Non-Big Four provider. Based on signalling and agency theory, A high-quality audit can positively signal new uninformed investors and increase the credibility of the company financial information (Yolandita & Cahyonowati, 2022). A financial-statement audit does not automatically cover the content of sustainability reports, so Big Four affiliation is treated as a proxy only.

Greenwashing
Greenwashing involves deceptive assertions regarding ecological advantages propagated by individuals or organizations regarding corporate operations, despite such environmental benefits lacking verifiable substance (Aryoso & Santi, 2023). Many domestic enterprises engaging in such practices frequently operate without encountering regulatory penalties (Wahyudin et al., 2022). Quantifying this phenomenon involves contrasting corporate environmental, social, and governance disclosures against tangible operational achievements to gauge the prevalence of misleading ecological signaling. To measure these, the following index formula is used (Wang et al., 2025), which using an environmental disclosure index (EDI) adapted from the GRI 300 series using manual content analysis rather than the deep-learning procedure used in the original study which cover environmental topics like materials, energy, water and effluents, biodiversity, emissions, waste, and supplier environmental assessment. Code symbolic if the disclosure is general term such as statements of commitment, policy intention or general claim without supporting evidence and code substantive supported by tangible evidence, such as quantitative data (e.g., energy consumption, emission volumes, waste quantities), measurable targets or realized results, or verifiable documentation. The GRI that used for disclosure checked is below:

Table 2.
GRI Disclosure Checked

GRI topic	Disclosure Items Checked	Number Of Items
GRI 301 : Materials	301-1 to 301-3	3
GRI 302 : Energy	302-1 to 302-5	5
GRI 303 : Water and Effluents	303-1 to 303-5	5
GRI 304 : Biodiversity	304-1 to 304-4	4
GRI 305 : Emissions	305-1 to 305-7	7
GRI 306 : Waste	306-1 to 306-5	5
GRI 308 : Supplier Environmental Assessment	308-1 to 308-2	2
Total		31

$$Selective\ Disclosure\ (GWLS) = 100\ \times \left(1 - \frac{Number\ Of\ Disclosed\ Items}{Total\ Required\ Items}\right)$$

$$Expressive\ Manipulation\ (GWLE)\ = 100 \times \left(\frac{Number\ Of\ Symbolic\ Disclosures}{Total\ Disclosed\ Items}\right)$$

$$GWL = \sqrt{GWLS \times GWLE}$$

The variables examined in this investigation are systematically illustrated within the following research framework diagram:

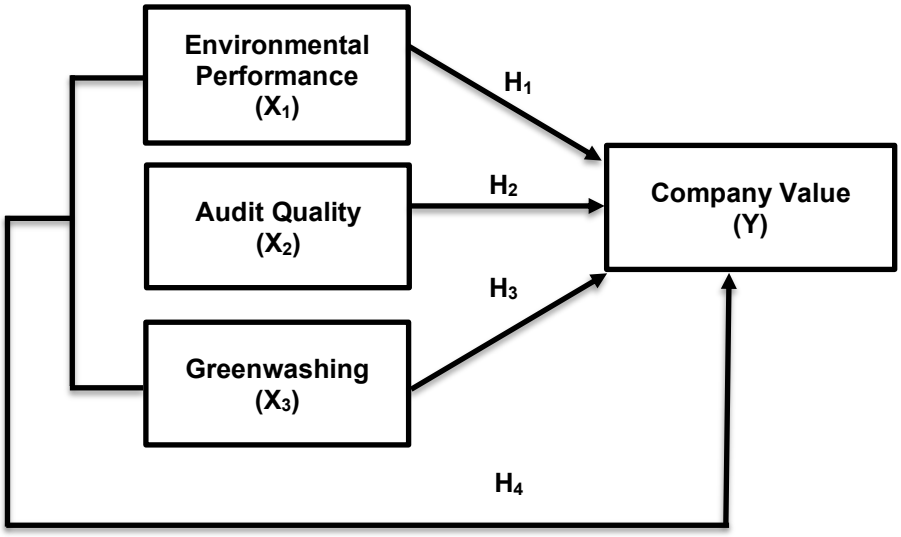


Figure 1. Research Framework

Here is the hypothesis of this research:

H_1 : Environmental performance is hypothesized to have a significant impact on company value

H_2 : The quality of audits is hypothesized to have a significant impact on the company's value.

H_3 : Greenwashing is hypothesized to have a significant impact on company value.

H_4 : Environmental Performance, Audit Quality, and Greenwashing are hypothesized to have a significant impact on company value.

RESEARCH METHOD

Employing a quantitative methodology, this investigation utilizes numerical datasets to analyze target phenomena and generate empirical knowledge (Sinaga, 2022). Information acquisition relies on secondary records gathered from the official Indonesia Stock Exchange portal, population consists of 90 energy-sector companies encompassing sustainability disclosures spanning the 2021-2025. A total Environmental performance was obtained from PROPER ratings of the Ministry of Environment of the Republic of Indonesia, Audit quality was sourced from annual report, Greenwashing was sourced from sustainability report. Sample selection proceeds through purposive criteria to target specific qualifying organizations (Marpaung et al., 2025), The data are therefore company-year panel data, consisting of ten companies observed over five years, resulting in ten companies (ABMM, ADMR, ADRO, AKRA, ENRG, GEMS, ITMG, MEDC, PGAS, PTBA). The model is estimated using pooled ordinary least squares (OLS) regression on all 50 observations, processed with statistical software packages. Pooled OLS is used because the panel is small, and adding company-specific effects would consume nine additional degrees of freedom out of 46. Because repeated observations of the same company may be correlated, the standard errors and significance levels may be understated, and the results are interpreted with caution, the ordinary pooled-OLS standard errors do not account for possible within company correlation, the significance levels and hypothesis decisions reported below are treated as tentative.

Table 3.
Sample Selection Criteria

No	Sample Criteria	Sum
1	Energy Sector Companies Listed on the Indonesia Stock Exchange for the 2021-2025 period.	90
2	Energy Sector Companies that were inconsistent in publishing sustainability reports or annual reports during the 2021-2025 period.	(46)
3	Energy sector companies that are inconsistent in publishing sustainability reports using the GRI Standards 300 during the 2021-2025 period.	(5)
4	Energy sector companies that did not participate in PROPER organized by the Ministry of Environment during the 2021-2025 period.	(29)
Total	Total eligible	10
Number of Observation Data	Total observed data obtained (10 companies x 5 years of observation)	50

Data analysis and testing consist of:
1. Descriptive Statistics
2. Classical Assumption Tests:
    a. Normality Test
    b. Heteroskedasticity Test
    c. Multicollinearity Test
    d. Autocorrelation Test
3. Multiple Linear Regression Analysis
4. Hypothesis Tests:
    a. T-Test
    b. F-Test
    c. Coefficient of Determination Test (R^2)

RESULTS

Descriptive Statistics

Descriptive statistics are used to give an overview or description of research data through minimum, maximum, mean, and standard deviation values (Ghozali, 2021).

Table 4.
Descriptive Statistics Test Results

Variables	N	Min.	Max.	Mean	Std. Deviation
Environmental Performance	50	2	5	3.60	.833
Audit Quality	50	0	1	.82	.388
Greenwashing	50	.00000	75.00000	20.89798	17.86753
Company Value	50	.183371	.78756	.4976781	.16363092

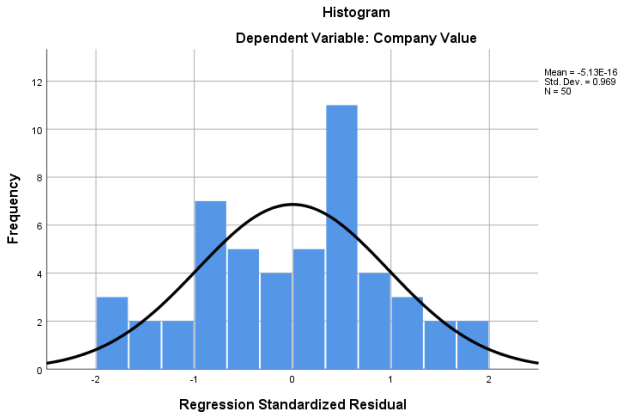
Source: Processed Data Results, 2026

Analytical insights reveal that the empirical sample encompasses ten companies and fifty firm-year observations from the energy sector operating on the Indonesia Stock Exchange across the 2021-2025 timeframe. For the Environmental Performance measure, records indicate a minimum value of 2 and a maximum of 5, alongside a mean of 3.60 and a dispersion metric of 0.833. Concurrently, Audit Quality exhibits a lower limit of 0 and an upper limit of 1, showing an average of 0.82 and a spread value of 0.388. In

addition, Greenwashing registers a minimum boundary of 0.00000 and a maximum ceiling of 75.00000, accompanied by a mean of 20.89798 and a variability index of 17.86753, The company value demonstrates with minimum 0.183371 and maximum 0.78756, showing a mean of 0.4976781 and a spread value of 0.16363092.

Normality Test

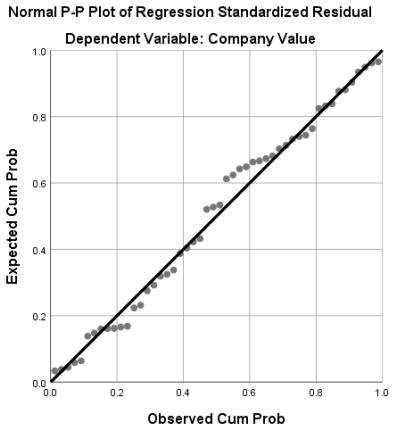
This diagnostic evaluation is conducted to determine whether residual terms or disturbance factors within the regression specification adhere to a normal distribution pattern (Ghozali, 2021).



Data source: Processed Data Results, 2026

Figure 2. Histogram Normality Test Results

Figure 2 show that the residuals follow a roughly bell-shaped pattern, indicating that the underlying test outcomes conform to a normal distribution.



Data source: Processed Data Results, 2026

Figure 3. P-Plot Normality Test Results

Figure 3 illustrates that the observations align closely along a diagonal trajectory, verifying that the diagnostic results satisfy the assumption of a normal distribution.

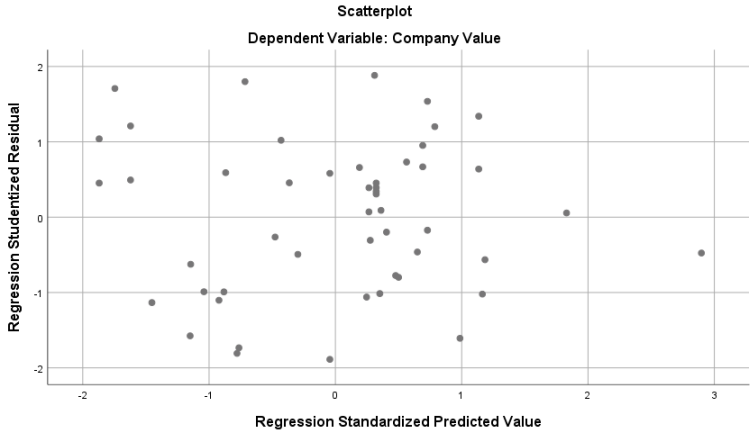
Table 5.
Kolmogorov-Smirnov Normality Test Results

	Unstandardized Residual
Asymp. Sig. (2-tailed)	.200[c]

Data source: Processed Data Results, 2026

Evaluation via the Kolmogorov-Smirnov procedure yields an asymptotic significance statistic of 0.200. Consequently, because this probability value exceeds the threshold of 0.05, the regression model is confirmed to exhibit normally distributed residuals.

Heteroskedasticity Test
Assessing whether residual variance remains constant or fluctuates across distinct observations requires a heteroskedasticity diagnostic (Ghozali, 2021). This evaluation utilizes a graphical scatterplot mapping predicted values (ZPRED) against standardized residual values (SRESID).



Data source: Processed Data Results, 2026

Figure 4. Heteroskedasticity Test Results

Analysis of Figure 4 demonstrates that data points scatter randomly both above and below the zero origin along the vertical axis, confirming the absence of heteroskedasticity and the presence of homoscedasticity.

Multicollinearity Test
This diagnostic examination aims to identify potential intercorrelations among predictor variables. Standard decision rules require tolerance values exceeding 0.1 combined with variance inflation factor metrics remaining below 10 to establish the absence of multicollinearity (Ghozali, 2021).

Table 6.
Multicollinearity Test Results

Variables	Tolerance	VIF
Environmental Performance	.827	1.209
Audit Quality	.855	1.170
Greenwashing	.731	1.368

Data source: Processed Data Results, 2026

Referring to Table 6, the VIF metric for Environmental Performance stands at 1.209, which remains below 10, accompanied by a tolerance level of 0.827 exceeding 0.1. Concurrently, the VIF value for Audit Quality reaches 1.170 with a tolerance of 0.855, whereas Greenwashing records a VIF statistic of 1.368 paired with a tolerance score of 0.731. Consequently, these figures verify that all evaluated predictors remain free from multicollinearity concerns.

Autocorrelation Test
This evaluative procedure checks whether linear regression residuals demonstrate serial dependence between the current timeframe and the preceding period (Ghozali, 2021).

Table 7.
Autocorrelation Test Results

Model	Durbin-Watson
1	2.311

Data source: Processed Data Results, 2026

Evaluation yields a Durbin-Watson statistic of 2.311. Referring to standard statistical tables for fifty observations across three explanatory parameters, the upper critical threshold stands at 1.6739 while the lower bound is 1.4206. Based on established evaluation benchmarks, the calculated metric satisfies the required condition where the upper boundary remains below the Durbin-Watson value, which in turn remains below four minus the upper boundary ($1.6739 < 2.311 < 2.3261$). This outcome confirms the complete absence of autocorrelation within the model.

Multiple Linear Regression Analysis
According to Ghozali (2021), regression analysis evaluates how two or more explanatory indicators impact a single response metric. The mathematical specification incorporating three predictors is formulated as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Description:
Y = Company Value
X_1 = Environmental Performance
X_2 = Audit Quality
X_3 = Greenwashing
a = Constant
$b_1b_2b_3$ = Regression Coefficient
e = Error Rate

Table 8.
Multiple Linear Regression Analysis Results

	Variables	Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	Constant	.788	.092	
	Environmental Performance	-.084	.022	-.429
	Audit Quality	-.088	.047	-.209
	Greenwashing	.004	.001	.445

Data source: Processed Data Results, 2026

Based on the table above, the multiple linear regression analysis equation in this study is:

Company Value = 0.788 – 0.084 Environmental Performance – 0.088 Audit Quality + 0.004 Greenwashing + e

The intercept of 0.788 is the predicted company value when all predictors equal zero. Since a PROPER score of zero lies outside the observed range, the intercept has limited substantive interpretation in this study. The coefficient of environmental performance is −0.084, indicating that, holding other predictors constant, a one-unit higher PROPER score is associated with a 0.084-unit lower predicted company value. The coefficient of audit quality is −0.088, indicating that company-years audited by a big four–affiliated firm have a predicted company value 0.088 units lower than those audited by non-big four firms, holding other predictors constant; this difference is not statistically significant at

the 5% level p=0.067. The coefficient of greenwashing is 0.004, indicating that, holding other predictors constant, a one-unit higher index value is associated with a 0.004-unit higher predicted company value.

T-Test

This partial assessment evaluates the individual impact of each explanatory indicator on the response metric by contrasting calculated test statistics against critical table values at a standard five percent significance threshold ($\alpha = 0.05$) to establish hypothesis validation (Ghozali, 2021).

Table 9.
T-Test Results

Model		t	Sig.
1	Constant	8.573	.000
	Environmental Performance	-3.790	.000
	Audit Quality	-1.878	.067
	Greenwashing	3.691	.001

Data source: Processed Data Results, 2026

Calculated using a degrees of freedom formulation where sample size minus the number of independent variables yields forty-six ($50 - 3 - 1 = 46$), the critical two-tailed table threshold stands at 2.0129 under a five percent significance level.

Empirical evaluation reveals that Environmental Performance produces a t-statistic of -3.790, exceeding the critical limit in absolute terms, alongside a probability level of p<0.001, thereby confirming a detrimental and substantial impact on Company Value. Conversely, Audit Quality yields a t-statistic of -1.878, falling short of the table threshold, paired with a significance statistic of 0.067 exceeding 0.05, which denotes an absence of meaningful influence on corporate worth. Meanwhile, Greenwashing registers a t-statistic of 3.691 alongside a probability score of 0.001, establishing a significant positive repercussion on Company Value.

F-Test

This simultaneous diagnostic examines whether the collective set of explanatory indicators drives the response variable, validating research hypotheses by comparing computed test statistics against standard distribution tables at a five percent significance threshold (Ghozali, 2021).

Table 10.
F-Test Results

Model		F	Sig.
1	Regression	16.102	.000[b]
	Residual		
	Total		

Data source: Processed Data Results, 2026

The F table value for 50 samples, α = 0.05 is 2.81, obtained by using *degree of freedom* (df) = sample size (N) - total variables (k) - 1 = 50 - 3 - 1 = 46.

Empirical evaluation yields a computed F statistic of 16.102, surpassing the table value of 2.81, alongside a significance level of p < 0.001 below the standard 0.05 alpha threshold. H4 tests whether the three slope coefficients are jointly zero; a significant F indicates that at least one is nonzero.

Coefficient of determination test
This diagnostic metric evaluates the capacity of the model to account for dispersion within the response variable. An outcome approaching unity signifies that the explanatory factors supply nearly all necessary information for predicting the dependent metric (Ghozali, 2021).

Table 11.
Coefficient Of Determination Test Results

Model	R	R Square	Adjusted R Square
1	.716[a]	.512	.480

Data source: Processed Data Results, 2026

Analysis reveals an adjusted $R^2 = 0.480$ and $R = 0.716$. The three predictors account for 0.512 as 51.2% in company value in the sample. Meanwhile, The R^2 remainder is 48.8% unexplained variation; it does not identify specific causes.

DISCUSSION

Environmental Performance on Company Value
Evaluation of the partial impact of Environmental Performance yields a t-statistic of -3.790, exceeding the critical table threshold of 2.0129, paired with a significance statistic of $p < 0.001$, thereby confirming the acceptance of H1. This outcome aligns with prior studies by (P. R. Prasetyo & Suryaningsum, 2026) as well as (Aziizah & Fanani, 2025). One possible explanation from the literature, not tested here, is that environmental initiatives involve substantial costs that may weigh on short-term earnings, while their benefits may appear only over a longer horizon. This association does not imply that firms should reduce environmental compliance.

Audit Quality on Company Value
Assessment of the individual effect of Audit Quality produces a t-statistic of -1.878, falling below the critical threshold of 2.0129, alongside a significance level of 0.067 exceeding 0.05, establishing that H2 is not supported at the 5% level. In this sample of ten energy companies, Big Four affiliation is not significantly associated with company value once environmental performance and greenwashing are accounted for. This does not mean that audits are unimportant. Signaling theory and agency theory would lead us to expect that a more credible auditor reduces information asymmetry and monitoring costs, and that this may be reflected in firm value. The present result does not provide statistical evidence for that expectation, but it does not refute the theories either. A small sample, limited variation in the audit dummy, and the use of Big Four affiliation as a rough proxy for audit quality may all contribute.

These findings correspond with earlier research conducted by (Pratama & Imelda, 2026) who examined 19 energy companies over 2021-2024 and (Nurhasanah & Napisah, 2024) who examined 44 non cyclical consumer goods companies over 2018-2022. Both used a big four dummy and found no significant effect of audit quality on company value. The similar results despite different sectors and periods suggest that the nonsignificance may be linked to the audit-quality measure itself, since a Big Four dummy captures auditor brand rather than audit effort or output. One possible explanation, which was not tested here, is that investors view audit assurance mainly as regulatory compliance or give more weight to other information, such as near-term financial performance. Because investor preferences were not measured, this remains tentative. Future research could use audit fees, auditor tenure, or discretionary accruals as alternative proxies.

Greenwashing on Company Value
Testing the partial influence of Greenwashing demonstrates a t-statistic of 3.691, surpassing the critical table limit of 2.0129, with a significance value of 0.001 below 0.05, confirming that H3 is accepted. This empirical observation concurs with previous work by (Nurhazizah & Helmy, 2026). Result symbolic sustainability disclosures can still get a positive response from the market and boost investors perception of the company value.

Environmental Performance, Audit Quality, and Greenwashing on Company Value
Simultaneous evaluation reveals a computed F statistic of 16.102, exceeding the critical table value of 2.81, accompanied by a probability level of $p<0.001$ threshold, verifying that H4 is accepted. For the selected energy companies, this indicates that environmental performance, greenwashing, and audit quality jointly show a statistically significant association with company value, while audit quality remains nonsignificant individually. The F test only shows that the model as a whole is associated with company value; it does not prove the underlying theories, nor does it establish interactions among the predictors. The result is consistent with the expectation under signaling theory that environmental and reporting-related information may serve as market signals, and under agency theory that external assurance may reduce monitoring costs, but it cannot confirm either mechanism.

The result can be compared with prior studies only with regard to what each examined. (Cecilia & Sjarief, 2021) tested managerial ownership, audit committee meetings, profitability, and audit quality on price-to-book value in manufacturing firms (2017-2019) and also found a significant joint effect, but with audit quality individually significant. (Adyaksana et al., 2024) tested ROA, ROE, EPS, and PROPER-based environmental performance on Tobin's Q in basic industry and chemical firms (2017-2021) and likewise reported a significant F test, driven by financial and environmental variables. And (Freshtriana & Kim, 2025) examined greenwashing alone, measured as the gap between ESG disclosure and ESG performance, in LQ45 manufacturing firms (2013-2022), and did not examine audit quality or a joint model. These studies therefore differ in predictors, measures, sectors, and periods, so they support only the general idea that these factors are jointly related to firm value, not an identical joint result. One possible explanation, which was not tested here, is that environmental management reflects operational risk mitigation that markets consider for long-term viability, and that assurance may support the perceived credibility of reporting. Because neither risk management nor reporting credibility was measured, this interpretation remains.

CONCLUSION

The conclusion shows that environmental performance is negatively and significantly associated with company value, greenwashing is positively and significantly with company value and audit quality nonsignificant at 5%. Jointly, the three variables are significantly associated with company value ($F= 16.102$ $p<0.001$), explaining 51.2% of the sample variation ($R^2 = 0.512$; adjusted $R^2 = 0.480$). These finding apply only to the ten selected energy companies over 2021-2025 and should not be interpreted as causal.

RECOMMENDATION

Future research is advised to include additional variables that could potentially affect company value, such as company liquidity, corporate social responsibility (CSR), or other factors. Company value may also be measured with an alternative valuation proxy, such as Price to Book Value (PBV), and also may broaden company/year coverage, examine alternative measurements, and use models appropriate for the data structure.

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