

THE EFFECT OF ESG DISCLOSURE, CAPITAL INTENSITY, AND SALES GROWTH ON TAX AVOIDANCE PRACTICES IN INDONESIA'S ENERGY SECTOR COMPANIES

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ABSTRACT

This research analyzes the effect of ESG Disclosure, Capital Intensity, and Sales Growth on Tax Avoidance practices among energy sector companies listed on the Indonesia Stock Exchange (IDX) for the 2023-2025 period. The energy sector warrants investigation due to its complex cost structures, which are highly susceptible to Tax Avoidance practices. Utilizing a quantitative approach with purposive sampling technique, this research selected a sample of 14 companies. Data Analysis was conducted using panel data regression with the Random Effect Model (REM) on EViews. The results reveal that ESG Disclosure, Capital Intensity, and Sales Growth each have a statistically significant negative effect on Tax Avoidance. These findings indicate that increased sustainability reporting transparency, higher fixed asset investment, and stable sales growth in energy sector can drive companies toward greater tax compliance. The novelty of this research lies in the implementation of the latest reporting standard, specifically the GRI Standard 2021 to measure ESG Disclosure, addresses a critical research gap in the existing literature, as previous studies primarily utilized outdated reporting standards.

Keywords: *ESG disclosure, capital intensity, sales growth, tax avoidance, energy sector.*

INTRODUCTION

Taxes serve as a vital instrument for financing national development in Indonesia, contributing an average of 70% to total state revenue as outlined in the State Revenue and Expenditure Budget. However, tax collection effectiveness remains as a challenge given Indonesia's low tax-to-GDP ratio hovering around 10%, which is well below the average of other developing nations (Andika et al., 2025). This problem is especially pronounced in the energy and mining sectors. For instance, the Directorate General of Taxes detected Rp 47.3 trillion in transfer pricing adjustments within the mining sector alone between 2020 and 2022, underscoring severe tax base erosion (DGT, 2023, as cited in Diosana & Koerniawan, 2025). Diosana and Koerniawan (2025) also found that listed energy companies during 2019-2023 confirm extreme variations in tax compliance, with Cash Effective Tax Rates (CETR) dropping as low as 0.01 (1%) indicating aggressive tax avoidance practices. This finding strengthens the argument that corporate tax avoidance practices are prevalent, referring to legal strategies that exploit regulatory loopholes (grey areas) to minimize fiscal liabilities without directly violating the law. The urgency of this research is underscored by substantial estimated state financial losses resulting from



aggressive tax behavior by large corporations, particularly those operating within the energy sector.

The energy sector serves as one of the largest contributors to tax revenue while simultaneously being highly susceptible to tax avoidance practices due to its operational complexity (Fadhilah et al., 2025). Companies within this sector operate under complex cost structures and are frequently involved in large scale capital investment schemes, thereby creating opportunities for management to engage in earnings management to satisfy investor expectations (Setyawati et al., 2025). These capital-intensive characteristics, coupled with high exposure to global commodity price volatility, render the determinants of tax policy in this sector particularly critical for fiscal authorities and stakeholders seeking to preserve national economic stability and ensure tax system fairness in Indonesia.

The latest research on tax has increasingly integrated non-financial dimensions, particularly Environmental, Social, and Governance (ESG) disclosure, as a monitoring mechanism for managerial behavior. ESG disclosure is viewed as an indicator of a firm's commitment to responsible business practices, including tax compliance. Several studies found that firms with high ESG disclosure scores tend to avoid tax avoidance practices to safeguard public trust and corporate reputation (Dalimunthe et al., 2024). Yet, contrasting findings were reported by Triwahyuningtyas and Zulaecha (2025) found that ESG disclosure does not significantly affect tax avoidance. This inconsistency means the effect of ESG disclosure in tax avoidance practices remains an ongoing empirical debate requiring further investigation, particularly within specific industry contexts.

Besides sustainability dimensions, internal firm structures such as capital intensity also serve as primary determinants of tax policy within energy companies. Capital intensity provides opportunities for firms to lower taxable income through depreciation expenses on fixed assets. Andika et al. (2025), Aji and Kartikaningrum (2024), as well as Nurjanah and Romadhina (2025) found that capital intensity significantly affects tax avoidance practices. Substantial fixed asset holdings enable companies to achieve tax efficiencies via legal taxable income deductions.

Sales growth also influences corporate tax planning dynamics through continuous transaction volume increases and market expansion. Stable sales growth is frequently associated with significant profitability gains, which subsequently exert pressure on management to manage operational expenses, including tax liabilities (Kristiani et al., 2024). Nurjanah and Romadhina (2025) found that sales growth significantly affects tax avoidance, whereas Apriliani and Wulandari (2023) reported no significant effect, and Sudibyo (2022) even found a significant negative impact. These inconsistencies further reinforce the urgency of re-examining this variable, particularly within a specific sector and time frame.

Examining ESG disclosure, capital intensity, and sales growth within a single empirical model provides a holistic framework for understanding corporate tax policy in energy companies. Corporate tax strategy does not occur in isolation, it is shaped simultaneously by external normative accountability, internal asset allocation, and market

growth dynamics. Specifically, ESG disclosure reflects external governance and stakeholder reputation, capital intensity captures internal fixed-asset structure and fiscal depreciation tax shields, while sales growth represents operational momentum and liquidity constraints. Evaluating these three dimensions together prevents omitted variable bias and enables a comprehensive assessment of how ethical commitments, structural assets, and financial growth interact to drive corporate tax avoidance behavior in Indonesia's energy sector.

The novelty of this research lies in its implementation of the latest reporting standard, specifically the GRI Standards 2021, to measure ESG disclosure with greater precision among energy companies for the 2023–2025 period. Evaluating ESG disclosures via GRI 2021 standards during the dynamic 2023–2025 period provides updated empirical evidence comparing refined sustainability metrics against legacy reporting frameworks, demonstrating that standardized sustainability disclosures actively curb tax avoidance in high-impact sectors. Furthermore, the findings carry significant urgency as an evaluative basis for policymakers in formulating more responsive fiscal policies. This research aims to analyze and empirically evaluate the effect of ESG disclosure, capital intensity, and sales growth on tax avoidance practices among energy sector companies listed on the Indonesia Stock Exchange during the 2023-2025 period.

RESEARCH METHOD

This research utilizes a quantitative approach with panel data regression analysis via EViews software to examine the partial and simultaneous effects of ESG Disclosure, Capital Intensity, and Sales Growth on Tax Avoidance Practices. The panel estimation model was evaluated through sequential model selection tests and the Random Effect Model (REM) was selected as the final and most appropriate estimation model for this research.

Population and Sample

The population in this research comprises 84 energy sector companies listed on the Indonesia Stock Exchange (IDX) during the 2023–2025 period. Sample selection was conducted using a purposive sampling technique based on predefined criteria to ensure the retrieved data directly aligns with the research objectives. Following the application of these sampling criteria, a final sample of 14 companies was selected, resulting in a balanced panel dataset of 42 observations (14 companies x 3 observation years across 2023-2025). During preliminary statistical diagnostic testing in EViews, 2 extreme outlier observations were removed to ensure residual normality and fulfill classical regression assumptions. Consequently, the final analyzed dataset consists of 40 companies-year observations across the 2023-2025 observation period. The detailed step-by-step sample selection criteria and observation breakdown are presented in Table 1.

Table 1. Purposive Sampling Criteria

No	Sample Selection Criteria	Total
1	Companies listed on the IDX continuously during the 2023–2025 period	84
2	Companies currently under trading suspension or potential delisting	(10)
3	Companies presenting annual financial statements in currencies other than IDR during 2023–2025	(45)
4	Companies inconsistently publishing annual reports and sustainability reports during 2023–2025	(4)
5	Companies reporting net losses in their annual financial statements during 2023–2025	(6)
6	Companies not using the GRI Index to measure research variables	(5)
7	Total sample of companies selected for observation	14
8	Total observations (14 companies × 3 years)	42
9	Less: Extreme outlier observations removed during diagnostic testing	(2)
10	Final companies-year observations analyzed in regression model	40

Sources: *Secondary Data, Processed (2026)*

Data Collection Technique

The data utilized in this research consist of secondary data retrieved from annual reports and sustainability reports published by companies on the official website of the Indonesia Stock Exchange (www.idx.co.id) and the respective official websites of each corporate company.

Operational Definition of Variables

Tax Avoidance (Y) measured using the Effective Tax Rate (ETR) proxy, calculated as:

$$\text{ETR} = \frac{\text{Tax Expense}}{\text{Pre-Tax Income}}$$

Capital Intensity (X2) measured as the ratio of total fixed assets to total assets:

$$\text{Capital Intensity} = \frac{\text{Total Fixed Assets}}{\text{Total Assets}}$$

Sales Growth (X3) measured by the sales growth rate relative to the preceding period:

$$\text{Sales Growth} = \frac{\text{Sales}_t - \text{Sales}_{t-1}}{\text{Sales}_{t-1}}$$

Data Analysis Method

Data analysis in this research was conducted using panel data regression via EViews software. Given that the dataset combines a cross-sectional dimension (14 companies) and a time-series dimension (3 years, 2023–2025), the analytical process encompasses the following sequential stages:

1. Descriptive statistical analysis performed to characterize the data properties by reporting summary metrics, including the mean, standard deviation, minimum, and maximum values for each variable.
2. Panel data model selection evaluated through three specification tests: (1) Chow Test to choose between the Common Effect Model (CEM) and the Fixed Effect Model (FEM), (2) Hausman Test to differentiate between the Fixed Effect Model (FEM) and the Random Effect Model (REM), and (3) Lagrange Multiplier (LM) Test conducted, if necessary, to select between the Common Effect Model (CEM) and the Random Effect Model (REM).
3. Classical assumption testing which includes evaluations for normality, multicollinearity, heteroscedasticity, and autocorrelation, tailored to the specifications of the selected regression model.
4. Hypothesis testing and goodness-of-fit involves partial hypothesis testing using the *t*-test alongside the coefficient of determination (R^2) to evaluate the explanatory power of the independent variables relative to the dependent variable.

The empirical panel data regression equation utilized in this study is formulated as follows:

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

Where:

Y	= Tax Avoidance
a	= Constant intercept term
b_1, b_2, b_3	= Regression slope coefficients for X_1, X_2, X_3
X_1	= ESG Disclosure
X_2	= Capital Intensity
X_3	= Sales Growth
e	= Error Term

RESULTS AND DISCUSSION

Descriptive Statistical Analysis

Table 2. Results of Descriptive Statistical Analysis

Variable	Mean	Maximum	Minimum	Std. Dev.	Observation
Y	0.2126	0.5525	0.0054	0.0989	40
X1	0.5944	0.9741	0.1293	0.2103	40
X2	0.2952	0.7482	0.0061	0.1987	40

X3	0.0860	0.5505	-0.5057	0.2026	40
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Sources: EViews Output, Processed (2026)

Based on the descriptive statistical test results presented in Table 2, the Tax Avoidance variable (Y) records a mean value of 0.2126 with a standard deviation of 0.0989. This mean value indicates that, on average, energy sector companies in Indonesia maintained an effective tax rate payment of 21.26% relative to pre-tax income during the 2023–2025 period. The ESG Disclosure variable (X_1) exhibits a mean value of 0.5944 with a standard deviation of 0.2103, demonstrating that sample companies disclosed approximately 59.44% of the designated ESG indicators on average. The Capital Intensity variable (X_2) displays a mean value of 0.2952 with a standard deviation of 0.1987, implying that average corporate fixed asset holdings account for 29.52% of total assets. Finally, the Sales Growth variable (X_3) shows a mean value of 0.0860, reflecting an average annual sales growth rate of 8.60% alongside a standard deviation of 0.2026.

Panel Data Model Selection

Prior to conducting hypothesis testing, model specification tests were performed to determine the most appropriate estimation approach for the panel data. Three candidate models were evaluated: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM).

Chow Test

Table 3. Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	5,4094	(12,23)	0,0003
Cross-section Chi-square	52,2933	12	0,0000

Sources: EViews Output, Processed (2026)

As presented in Table 3, the Chow test results yield a probability value of 0.0003 for Cross-section F and 0.0000 for Cross-section Chi-square, both well below the 0.05 significance threshold. This indicates that the Fixed Effect Model (FEM) provides superior explanatory power compared to the Common Effect Model (CEM). Subsequently, the Hausman test was conducted to differentiate between FEM and the Random Effect Model (REM).

Hausman Test

Table 4. Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2,8767	3	0,4110

Sources: EViews Output, Processed (2026)

Based on the Hausman test results shown in Table 4, the test yields a probability value of $0.4110 > 0.05$ significance level. Consequently, H_0 is accepted, indicating that the Random Effect Model (REM) is statistically more appropriate than FEM. To further validate that REM is preferred over CEM, the Lagrange Multiplier (LM) test was performed.

Lagrange Multiplier (LM) Test

Table 5. Lagrange Multiplier (LM) Test Results

Test	Cross-section	Time	Both
Breusch-Pagan	11,7493 (0,0006)	0,5816 (0,4457)	12,3309 (0,0004)

Sources: EViews Output, Processed (2026)

As summarized in Table 5, the Breusch-Pagan cross-sectional probability value of $0.0006 < 0.05$ significance threshold, confirming the Random Effect Model (REM) as statistically superior to CEM. Based on the combined outcomes of these three specification tests, the Random Effect Model (REM) was selected as the final regression model for this study.

Classical Assumption Tests

Normality Test

The normality test was performed using the Jarque-Bera test on the model's residuals. As displayed in Figure 1, the test yields a Jarque-Bera statistic of 1.1309 with a probability value of 0.5681 ($p > 0.05$). Consequently, the model residuals are normally distributed, confirming that the normality assumption is fulfilled.

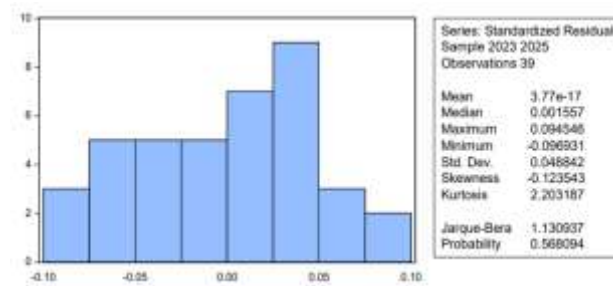


Figure 1. Normality Test Results (Jarque-Bera)

Sources: EViews Output, Processed (2026)

Multicollinearity Test

Table 6. Multicollinearity Test Results

Variable	X1 (ESG)	X2 (Capital Intensity)	X3 (Sales Growth)
X1 (ESG Disclosure)	1,0000	-0,3969	-0,2150

X2 (Capital Intensity)	-0,3969	1,0000	-0,1450
X3 (Sales Growth)	-0,2150	-0,1450	1,0000

Sources: *EViews Output, Processed (2026)*

Multicollinearity was evaluated by examining the correlation matrix among the independent variables. As shown in Table 6, the correlation coefficient between X_1 and X_2 is -0.3969, between X_1 and X_3 is -0.2150, and between X_2 and X_3 is -0.1450. Because all correlation coefficients remain well below the 0.85 threshold, it can be concluded that no severe multicollinearity issues exist among the independent variables.

Heteroscedasticity Test

Table 7. Heteroscedasticity Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,002648	0,003907	0,6778	0,5024
X1 (ESG)	0,005206	0,004602	1,1314	0,2656
X2 (Capital Intensity)	-0,001372	0,004901	-0,2800	0,7812
X3 (Sales Growth)	0,005037	0,004472	1,1263	0,2677

Sources: *EViews Output, Processed (2026)*

The heteroscedasticity test was conducted by regressing the absolute residuals against the independent variables. Based on Table 7, the probability values for X_1 , X_2 , and X_3 are 0.2656, 0.7812, and 0.2677, respectively. Since all probability values exceed the 0.05 threshold, it is concluded that the regression model is free from heteroscedasticity.

Autocorrelation Test

An autocorrelation test was conducted to detect whether residuals are correlated over time. This study initially utilized the Durbin-Watson (DW) statistic, where a value around 2 generally indicates the absence of autocorrelation, whereas values approaching 0 suggest positive autocorrelation.

Table 8. Autocorrelation Test Results – Random Effect Model (REM)

Model	Method	Durbin-Watson Stat	Conclusion
Random Effect Model (REM)	Panel GLS	0,8041*	Inconclusive

Sources: *EViews Output, Processed (2026)*

Based on Table 8, the initial DW statistic of 0.8041 for the REM model falls well below the lower critical bound (dL), rendering the test results inconclusive. This condition commonly occurs in short panel datasets with a limited time-series dimension ($T=3$), as the Durbin-Watson test is primarily designed for datasets with larger time observations (Wooldridge, 2010). Therefore, model adjustments were made using the Breusch-Godfrey LM test as a corrective diagnostic measure.

Table 9. Autocorrelation Test Results – Breusch-Godfrey LM Test

	F-statistic	Obs*R-squared	Prob.
Breusch-Godfrey LM	2.215579	4.612048	0.0997

Sources: *EViews Output, Processed (2026)*

Based on Table 9, the Chi-Square probability value ($p = 0.0997$) exceeds the 0.05 threshold, indicating that H_0 cannot be rejected. Thus, the regression model is verified to be free from autocorrelation issues.

Panel Data Regression Analysis

Table 10. Panel Data Regression Analysis Results (Random Effect Model)

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Direction
C (Constant)	0.395722	0,036667	11.20249	0,0000	—
X1 – ESG	-0.206781	0,043181	-4.896519	0,0000	Negative
X2 – Capital Intensity	-0.217091	0,045988	-4.878729	0,0000	Negative
X3 – Sales Growth	-0.128081	0,041965	-3.130945	0,0045	Negative
R-squared				0.496018	
Adjusted R-squared				0.454020	
F-statistic				11.81038	
Prob(F-statistic)				0.000016	

Sources: *EViews Output, Processed (2026)*

Based on the Random Effect Model estimation results presented in Table 10, the empirical panel data regression equation is formulated as follows:

$$Y = 0,3957 - 0,2068X_1 - 0,2171X_2 - 0,1281X_3$$

The constant intercept term of 0.3957 indicates that if all independent variables are equal to zero, the baseline level of Tax Avoidance (measured by ETR) is 0.3957. Because Tax Avoidance is operationally proxied by ETR, where a lower ETR reflects greater tax minimization (higher tax avoidance) and a higher ETR reflects greater tax compliance (lower tax avoidance), the negative regression coefficients represent a reduction in the ETR level. Specifically, the regression coefficient for ESG Disclosure (X_1) of -0.2068 demonstrates that a one-unit increase in ESG Disclosure leads to a 0.2068 decrease in ETR, indicating an increase in tax planning efficiency. Similarly, the coefficient for Capital Intensity (X_2) of -0.2171 indicates that a one-unit increase in Capital Intensity reduces ETR by 0.2171 due to fiscal depreciation deductions. Finally, the coefficient for Sales Growth (X_3) of -0.1281 shows that a one-unit increase in Sales Growth leads to a 0.1281 decrease in ETR.

Hypothesis Testing

Partial Test (t-Test)

The partial test is conducted to evaluate the individual effect of each independent variable on Tax Avoidance at a 0.05 significance level. The statistical outcomes of the hypothesis testing are summarized in Table 11.

Table 11. Partial Test (t-Test) Results

Hypothesis	Variable	Coefficient	Prob.
H1: ESG has a negative effect on Tax Avoidance	ESG (X1)	-0.206781	0,0000
H2: Capital Intensity has a positive effect on Tax Avoidance	Capital Intensity (X2)	-0.217091	0,0000
H3: Sales Growth has a positive effect on Tax Avoidance	Sales Growth (X3)	-0.128081	0,0045

Sources: EViews Output, Processed (2026)

The Effect of ESG Disclosure on Tax Avoidance

The ESG Disclosure variable (X_1) yielded a t -statistic of -4.8965 with a probability value of 0.0000 ($p < 0.05$). This result demonstrates that ESG Disclosure exerts a statistically significant negative effect on Tax Avoidance; thus, H_1 is accepted. This finding implies that companies with higher ESG disclosure levels tend to exhibit lower degrees of tax avoidance. This result aligns with the findings of Dalimunthe et al. (2024) who similarly concluded that ESG disclosure exerts a significant negative effect on tax avoidance practices. From a theoretical perspective, this relationship is rooted in Stakeholder Theory and Legitimacy Theory. Under Stakeholder Theory, corporate managers are held accountable not only to equity shareholders seeking short-term profit maximization, but also to broader societal stakeholders who rely on corporate tax contributions to fund public infrastructure and environmental remediation (Saputri et al., 2026). When energy companies commit to high ESG disclosure under the GRI Standards 2021, corporate tax compliance is reframed as a non-financial sustainability commitment rather than merely a regulatory obligation. Under Legitimacy Theory, energy sector companies operate under high public and environmental scrutiny due to their substantial ecological footprint and social impact. Engaging in aggressive tax avoidance exposes companies to significant reputational risk, public backlash, potential litigation, and divestment by institutional ESG investors. Consequently, transparent ESG reporting increases managerial accountability, deters opportunistic tax planning, and reinforces corporate legitimacy (Darmansyah et al., 2022).

The Effect of Capital Intensity on Tax Avoidance

The Capital Intensity variable (X_2) yielded a t -statistic of -4.8787 with a probability value of 0.0000 ($p < 0.05$). This result indicates that Capital Intensity exerts a statistically significant negative effect on Tax Avoidance; hence, H_2 is rejected. This finding contradicts the initial hypothesis, which posited a positive relationship. Energy sector

firms with high fixed-asset intensity incur substantial depreciation expenses, which inherently reduce taxable income and lower the Effective Tax Rate (ETR) without requiring active tax avoidance strategies. Compared with prior literature, Nurjanah and Romadhina (2025) argued that managers actively exploit discretionary fixed-asset acquisitions as a tax planning tool to maximize tax shields. In contrast, Nirwasita et al. (2024) and Dewi and Oktaviani (2021) demonstrated that in capital-heavy sectors, fixed asset accumulation is non-discretionary and dictated by baseline operational capacity, generating automated depreciation allowances that naturally reduce taxable income without requiring deliberate tax sheltering. Furthermore, whereas general market studies view high asset holdings as an opportunity for tax planning, studies focusing on heavy industries prove that extensive fixed infrastructure actually increases regulatory oversight from tax authorities, thereby constraining aggressive tax behavior rather than encouraging it (Fauziah & Helmy, 2025). Capital intensity is utilized to finance operational activities and support the business rather than to avoid taxes (Santi et al., 2025).

The Effect of Sales Growth on Tax Avoidance

The Sales Growth variable (X_3) yielded a t -statistic of -3.1309 with a probability value of 0.0045 ($p < 0.05$). This result demonstrates that Sales Growth exerts a statistically significant negative effect on Tax Avoidance; therefore, H_3 is rejected. Firms experiencing rapid sales growth generally achieve enhanced profitability and stronger investor confidence, rendering them more inclined to avoid risky tax avoidance practices that could jeopardize corporate reputation. Comparing this result with prior literature reveals clear differences in findings, Kristiani et al. (2024) and Nurjanah and Romadhina (2025) reported a positive impact, arguing that rapid revenue expansion increases total tax liabilities and prompts managers to actively seek tax planning opportunities. Conversely, Sudibyo (2022) and Lestari and Dewi (2024) found that steady sales growth generates sufficient operational cash flow, which reduces liquidity pressures and lowers the incentive to adopt aggressive tax schemes. Furthermore, Bangsawan et al. (2025) confirmed that higher revenue growth increases financial visibility in energy companies, leading management to prioritize risk mitigation and institutional reputation over short-term tax minimization. Company managers become more cautious in protecting the firm's public image and corporate reputation, choosing long-term business sustainability over short-term tax savings (Apriliani & Wulandari, 2023).

Coefficient of Determination (R^2)

Table 12. Coefficient of Determination		
Statistic	Value	Interpretation
R-squared	0,4960	49,60% of Tax Avoidance variation is explained by the model
Adjusted R-squared	0,4540	45,40% after adjusting for the number of variables and observations

Sources: EViews Output, Processed (2026)

Based on Table 12, the R^2 value stands at 0.4960 and the Adjusted R^2 value at 0.4540. The Adjusted R^2 value of 0.4540 indicates that ESG Disclosure, Capital Intensity, and Sales Growth collectively explain 45.40% of the variance in Tax Avoidance. The remaining 54.60% is accounted for by other variables not included in this research model.

The results provide critical insights into corporate tax behavior within Indonesia's energy sector companies during the 2023-2025 period, demonstrating that ESG disclosure under the updated GRI Standards 2021, capital intensity, and sales growth each exert a statistically significant negative effect on corporate tax avoidance. In contrast to Triwahyuningtyas and Zulaecha (2025) and Nurjanah and Romadhina (2025), who reported no significant impact of general ESG metrics on tax avoidance in property and manufacturing contexts, this research confirms that standardized sustainability disclosures under GRI Standards 2021 actively curb aggressive tax planning in high-impact energy companies, corroborating evidence from Dalimunthe et al. (2024) and Saputri et al. (2026).

Furthermore, while Nurjanah and Romadhina (2025) argued that managers actively exploit fixed asset expansion to shelter income from taxes, this research reveals that in capital-heavy energy companies, fixed asset accumulation functions as a non-discretionary operational baseline whose automated depreciation deductions lower tax burdens naturally without triggering aggressive tax avoidance schemes, aligning with Santi et al. (2025). Simultaneously, steady sales growth enhances operational liquidity and public visibility, prompting management to prioritize corporate reputation and fiscal compliance over risky tax strategies, thereby reinforcing findings by Sudibyo (2022) and Lestari and Dewi (2024) while contrasting with studies suggesting revenue growth drives tax aggressiveness.

Practical Implications

The empirical findings of this research offer actionable practical implications for policymakers and corporate management. For fiscal authorities such as the Directorate General of Taxes and the Financial Services Authority, standardized ESG reporting under GRI standard 2021 can be integrated into corporate tax risk assessment matrixes as a non-financial indicator to streamline audit selection and incentivize tax transparency, supporting recommendations by Diosana and Koerniawan (2025), Saputri et al. (2026), and Andika et al. (2025). For corporate executives, energy firm management should view sustainability reporting and fixed-asset investments not as administrative cost burdens, but as strategic assets that naturally yield legal depreciation tax shields while protecting corporate reputation and lowering regulatory scrutiny, thereby aligning with insights from Santi et al. (2025), Fauziah and Helmy (2025), Lestari and Dewi (2024), and Apriliani and Wulandari (2023).

CONCLUSION

Based on the panel data regression analysis using the Random Effect Model (REM), this study concludes that ESG Disclosure, Capital Intensity, and Sales Growth each exert a statistically significant negative effect on Tax Avoidance within Indonesia's energy sector. First, ESG Disclosure negatively affects Tax Avoidance (H_1 accepted), indicating that energy firms with higher sustainability disclosure levels demonstrate greater corporate tax compliance, aligning with the transparency and accountability commitments central to GRI Standards 2021. Second, Capital Intensity negatively impacts Tax Avoidance (H_2 rejected), demonstrating that substantial fixed-asset holdings do not drive aggressive tax behavior, but rather automatically lower the effective tax burden through legitimate fiscal depreciation mechanisms. Third, Sales Growth negatively influences Tax Avoidance (H_3 rejected), revealing that expanding energy companies prioritize corporate reputation and investor trust over risky tax avoidance strategies. Collectively, these three independent variables account for 45.40% of the variance in Tax Avoidance (Adjusted $R^2 = 0.4540$), with the remaining proportion explained by external factors outside the scope of this model.

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