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The Effect of Green Accounting Implementation and Leverage on Tax Avoidance in Mining Companies (2022–2024)

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This study aims to analyze the influence of green accounting and leverage on tax avoidance in mining companies listed on the Indonesia Stock Exchange during the 2022–2024 period. The background of this study is based on the increasing public and regulatory attention to corporate environmental responsibility and corporate tax practices. This study employs a quantitative approach using secondary data obtained from companies' annual financial reports and sustainability reports. The sampling technique utilized purposive sampling, resulting in 30 mining companies meeting the research criteria, with a total of 90 observations during the study period. Data analysis was conducted using multiple linear regression supported by descriptive statistics and classical assumption tests, including tests for normality, multicollinearity, and heteroscedasticity. The results indicate that green accounting and leverage do not significantly influence tax avoidance. These findings suggest that the implementation of environmental accounting practices and a company's leverage level are not the primary factors influencing tax avoidance behavior in mining companies. Therefore, other factors such as profitability, firm size, and corporate governance likely play a more significant role in determining a company's tax avoidance practices.
Keywords: Green Accounting, Leverage, Tax Avoidance, Mining Companies, Indonesia Stock Exchange.

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1. Introduction

To understand corporate behavior in fulfilling tax obligations, it is important to examine the level of tax avoidance. Tax avoidance represents a legal effort by corporations to minimize tax liabilities by utilizing loopholes in tax regulations without violating the law. The level of tax avoidance is often used as an indicator of how corporations manage their fiscal responsibilities and reflects their compliance with applicable regulations. Corporations with a high level of tax avoidance can increase their after-tax profits. However, such practices also expose companies to reputational risks and regulatory scrutiny. Tampubolon John, Siagian Valentine, (2024) Therefore, tax avoidance has become a major concern for investors, governments, and stakeholders as it is closely related to corporate transparency and sustainability, particularly through sustainability reporting and good corporate governance. The implementation of green accounting has a positive impact on company performance as it demonstrates environmental concern to society. By disclosing environmentally friendly activities, companies are perceived as more accountable and responsible, which can reduce negative perceptions related to risky business practices.

One example is PT Artha Mahiya Investama Tbk (AIMS). During the period 2021–2023, the company shifted its business direction through capital increases and expansion into various business sectors. This strategic change was accompanied by an increase in external financing. From an accounting perspective, the use of debt generates interest expenses that can reduce taxable income, thereby lowering the corporate tax burden legally. This illustrates how corporate financing decisions are closely related to tax efficiency strategies.

One factor that can influence tax avoidance is the implementation of green accounting. Green accounting is an accounting framework that incorporates environmental costs and activities into corporate reporting as a form of social responsibility. Companies that extensively disclose environmental activities tend to maintain public legitimacy and avoid risky business practices, including aggressive tax avoidance.

In addition to green accounting, another determinant influencing tax avoidance is leverage. Leverage describes the extent to which a company uses debt to finance its assets. The higher the level of debt, the greater the interest expense that can be used to reduce taxable income, resulting in lower tax obligations. In practice, green accounting and leverage can simultaneously influence tax avoidance. Green accounting promotes transparency and corporate legitimacy, while leverage provides opportunities for tax efficiency through interest expenses. Sijabat et al., (2024) This reflects a balance between reputational considerations and financial interests. However, existing literature has not reached a consensus regarding the relationship between environmental disclosure and tax avoidance behavior. Some studies suggest that companies with higher environmental disclosure tend to adopt more cautious tax strategies, while others find no significant relationship. This inconsistency highlights the need for further research. Based on the above background, this study aims to examine: (1) The effect of green accounting on tax avoidance, (2) The effect of leverage on tax avoidance, (3)The combined effect of green accounting and leverage on tax avoidance.

2. Theoretical Foundation

Agency Theory

Agency theory, introduced by Jensen and Meckling, explains the contractual relationship between principals (owners) and agents (managers). Managers are entrusted with managing company resources for the benefit of shareholders, but conflicts of interest may arise due to differences in objectives and information asymmetry. Managers, who possess more complete internal information, may make decisions that deviate from shareholders' interests. Tax policy decisions, particularly tax avoidance, are highly susceptible to such conflicts.

From the perspective of agency theory, managers are motivated to maximize after-tax profits because these figures are often used as performance indicators and as a basis for compensation. Tax avoidance can serve as a tool to increase net income in the short term. However, overly aggressive tax avoidance may result in agency costs, such as tax audits, penalties, legal issues, and reputational damage. In this study, green accounting is viewed as a governance mechanism that enhances transparency and accountability, thereby reducing opportunistic managerial behavior. On the other hand, high leverage may encourage companies to engage in tax planning through interest expense deductions.

Theoretical Framework and Hypotheses

Green Accounting

In essence, green accounting is an accounting method that incorporates ecological dimensions into the corporate recording system, including costs, assets, and liabilities related to the environmental impact of an entity's operations (Ilmiah et al., 2025). In principle, this method is not significantly different from traditional accounting; the distinction lies in the addition of ecological elements that are useful in supporting the decision-making process of stakeholders (Santoso & Handoko, 2023).

This concept emphasizes the recognition and disclosure of environmental costs such as waste management, mine land reclamation, energy efficiency, and compliance with environmental regulations. The implementation of green accounting has developed alongside increasing sustainability demands and the obligation of sustainability reporting in Indonesia through POJK No. 51/POJK.03/2017. In the context of

mining companies, this practice becomes highly important due to the significant ecological impact of their operations, resulting in stronger legitimacy pressure from both society and regulators.

Based on legitimacy theory, companies strive to obtain social acceptance by demonstrating environmental concern through the disclosure of environmental activities in their annual reports. A study by No et al. (2025) reveals that ecological disclosure and ESG practices are capable of increasing investor confidence and reducing reputational risks, as the transparency provided is able to meet stakeholder expectations while also indicating the company's commitment to sustainability. Similar findings were presented by Rahmawati & Hamzah, (2025), showing that high-quality green accounting disclosure can strengthen transparency in sustainability reporting and enhance stakeholder trust, which in turn reduces corporate reputational risk.

However, a critical perspective highlights that environmental disclosure is often used as symbolic legitimacy to conceal opportunistic managerial behavior. The study by Social & Disclosure, (2024) indicates that companies with higher levels of tax aggressiveness tend to expand their social disclosures through CSR, although such disclosures are often used as an image-building tool to obscure tax avoidance practices. This implies that green accounting can function both as a tool for transparency and as a means of impression management to mask tax avoidance.

In the mining sector, social pressure regarding environmental responsibility is relatively high, leading companies to maintain public legitimacy. Therefore, a higher level of green accounting implementation is expected to reduce the tendency of tax avoidance, as companies aim to preserve their sustainability reputation. In this study, green accounting is measured using ISO 14001 certification. I. S. K. S. Sijabat et al., (2025) Companies that possess the certification are considered to have implemented standardized environmental practices, while companies without certification are assigned a score of zero. The measurement formula for green accounting is as follows:

$$\text{GA} \begin{cases} 1, & if\ the\ company\ has\ ISO14001\ certification \\ 0, & if\ the\ company\ does\ not\ have\ IS014001\ certification \end{cases}$$

Leverage

Leverage is a measure of the proportion of debt utilization as a source of investment financing (Fajar et al., 2025). Entities that become insolvent due to debt exceeding their total assets require a measurement tool to determine the extent to which liabilities are used as a source of operational financing (Staff & Journal, n.d.). This ratio reflects the level of debt usage in financing and also affects the entity's ability to fulfill its obligations (Ii & Pustaka, 2020). The consequence of using debt is the emergence of periodic interest expenses that must be paid. These interest expenses are able to reduce pre-tax income, thereby affecting the amount of tax payable. Based on this logic, the higher the leverage ratio of an entity, the greater its tendency to engage in tax avoidance in order to minimize its tax burden.

In the mining sector, which is characterized by high capital intensity, leverage becomes a vital strategy to finance large-scale projects while benefiting from the tax shield generated by interest expenses (Terhadap & Pajak, 2023). Neraca et al., (2023) emphasize that entities with higher debt ratios tend to be more aggressive in their tax avoidance strategies. In this study, leverage is measured using the Debt to Equity Ratio (DER):

$$\text{DER} = \frac{Total\ Debt}{Total\ Equity}$$

Tax Avoidance

Tax avoidance refers to an entity's efforts to legally minimize its tax liability by exploiting loopholes or provisions in tax regulations, without breaking the law (Neraca et al., 2023). This practice acts as a barrier to tax collection, leading to a reduction in government revenue. Fiscal resistance itself is divided into active

and passive resistance. The primary objective of tax avoidance is to reduce the tax burden, thereby increasing net profit and making the entity's cash flow more flexible, which can then be allocated for business expansion or investment (Alex & Mubarok, 2025). Ferrary et al., (2024) add that tax avoidance involves structuring transactions or making specific managerial decisions designed to minimize the tax burden efficiently and legally, so that the entity's resources can be optimized.

To measure the extent to which an entity engages in tax avoidance, this study adopts the Effective Tax Rate (ETR). The choice of ETR is based on its ability to reflect an entity's actual tax burden and to indicate the extent to which legitimate tax efficiency strategies are employed (Empiris & Pajak, 2025). The lower the recorded ETR, the higher the intensity of tax avoidance, because the entity pays taxes as a smaller proportion of its pre-tax profit:

$$\text{ETR} = \frac{Tax\ Expense}{Profit\ Before\ Tax}$$

Hypothesis Development

The Effect of Green Accounting on Tax Avoidance

Academic interest in the impact of green accounting on tax avoidance continues to grow as demands for corporate transparency and accountability regarding environmental impacts intensify. Green accounting is not merely the recording of environmental costs; it also serves as a managerial tool for understanding and managing environmental risks that affect financial performance, including tax liabilities. Purwanti et al., (2025) outline the mechanisms of green accounting in integrating environmental costs into financial reporting, which in turn enhances transparency, accountability, and managerial decision-making capabilities including fiscal planning and corporate legitimacy.

However, not all studies have succeeded in confirming a significant link between green accounting and tax avoidance practices. Recent research reveals that environmental disclosure by many entities remains largely symbolic; disclosure scores do not yet reflect substantial improvements in environmental performance, suggesting that such disclosure is aimed more at maintaining legitimacy rather than driving tangible policy changes (symbolic disclosure) (Marpaung et al., n.d.). Empirical evidence also shows that increased green accounting transparency does not always have a significant impact on tax avoidance practices, as ecological data has not yet been directly utilized as a fiscal planning tool (Iso & Indonesia, 2025).

The inconsistency of these empirical findings suggests that the relationship between green accounting and tax avoidance is not yet well-established, necessitating further context-sensitive research tailored to the characteristics of specific industries. This study examines this phenomenon among mining entities listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period, a time when the dynamics of environmental regulations and stakeholder pressure have intensified, yet the integration of green accounting into tax strategies may not yet be fully realized. Based on this description, the research hypotheses regarding green accounting are formulated as follows: H1: Green accounting has a significant positive effect on tax avoidance

The Impact of Leverage on Tax Avoidance

Conceptually, the leverage ratio illustrates the proportion of debt relative to equity in an entity's operational financing. Highly leveraged entities bear a greater interest expense burden, which can be deducted from taxable income, thereby creating an opportunity to reduce tax liabilities through legitimate tax planning. The potential reduction in pre-tax profit through interest expenses allows the entity to reap tax benefits from its debt.

However, findings from a study of mining companies listed on the Indonesia Stock Exchange (IDX) for the 2022–2024 period indicate that the impact of leverage on tax avoidance is not significant. This means that a high level of debt does not necessarily lead to an increase in tax avoidance practices. Most likely, this is due to other factors that influence tax decisions including regulatory compliance, oversight by relevant authorities, as well as public and investor pressure. Furthermore, the diversity of managerial strategies and operational characteristics across corporations means that the relationship between leverage and tax avoidance is not uniform. Empirical evidence confirms that leverage does indeed influence tax avoidance practices, but its effect fluctuates depending on the size of the entity and the intensity of capital; highly leveraged entities have the opportunity to reduce taxable income through interest expenses, but this impact is not always significant because the diverse characteristics of entities moderate this relationship (Kuswanto et al., 2025). Based on this discussion, the research hypothesis regarding leverage is formulated as follows: H2: *Leverage* has a significant positive effect on tax avoidance.

The Effects of Green Accounting and Leverage on Tax Avoidance

Green accounting and leverage are two factors that can shape corporate tax management policies. Green accounting encourages entities to be more transparent and accountable, while leverage provides an incentive to reduce taxable income through interest expenses. Wati, (2025) demonstrates that these two variables simultaneously influence tax avoidance practices. The implementation of green accounting encourages entities to maintain their reputation and regulatory compliance, whereas leverage opens opportunities for fiscal planning through the utilization of interest expenses. On that basis, the interaction between the two is suspected to influence the degree of corporate tax avoidance.

Although conceptually both are expected to have a significant impact on tax avoidance, the results of data analysis from a study of mining entities listed on the Indonesia Stock Exchange (IDX) for the 2022–2024 period show that the combined impact of green accounting and leverage on tax avoidance is not significant. This finding indicates that the combination of these two variables is not yet sufficient to drive a tangible shift in tax avoidance strategies. Most likely, other factors regulatory compliance, government oversight, as well as public and investor pressure limit the use of green accounting and leverage for tax avoidance purposes.

Based on the above discussion, the research hypothesis regarding the simultaneous effect of green accounting and leverage is formulated as follows: H3: Green accounting and leverage simultaneously have a significant positive effect on tax avoidance.

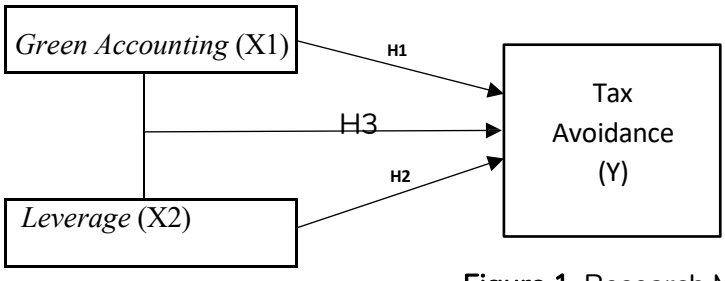

Figure 1. Research Model

3. Research Methodology

This study employs a quantitative approach with the aim of analyzing the impact of *green accounting* and *leverage* on *tax avoidance* among mining companies listed on the Indonesia Stock Exchange (IDX) during the 2022–2024 period. The quantitative approach was chosen because this study utilizes numerical data analyzed statistically to test the relationships among the study variables.

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The data used in this study consists of secondary data obtained from companies' *annual reports* and *sustainability reports* published on the official website of the Indonesia Stock Exchange (www.idx.co.id) and on each company's official website. This data was used to gather information on the research variables, which include *green accounting*, *leverage*, and *tax avoidance*.

The population in this study consists of all mining companies listed on the Indonesia Stock Exchange during the study period. The sampling technique employed a *purposive sampling* method based on specific criteria, namely mining companies that were continuously listed during the 2022–2024 period, companies that published complete financial reports during the study period, and companies that possessed data related to the research variables. Based on these criteria, a total of 30 companies were identified as eligible for the research sample, comprising 90 observations over the three-year study period.

Data analysis in this study was conducted using multiple linear regression to test the effect of independent variables on the dependent variable. Before hypothesis testing, descriptive statistical analysis and classical assumption tests including normality, multicollinearity, and heteroscedasticity tests were first performed to ensure that the regression model met the necessary statistical assumptions. Subsequently, hypothesis testing was performed using the t-test to determine the partial effect of each independent variable , the F-test to determine the simultaneous effect, and the coefficient of determination (R^2) to assess the model's ability to explain the variation in the dependent variable.

Population and Sample

A population is defined as the entire set of study subjects that meet specific criteria, while a sample is a small, representative portion of the population selected for analysis. Defining the population and sample is a crucial step before conducting the analysis to ensure the study yields accurate and representative findings. Both help researchers focus the study on relevant entities while ensuring the completeness and validity of the data, so that the results reflect the reality on the ground.

The study population includes all mining sector entities listed on the Indonesia Stock Exchange (IDX) for the 2022–2024 period, totaling 42 entities. However, not all entities had complete financial and sustainability reports for the study period. Therefore, the sample was focused on entities with complete data that could be validly analyzed. Based on this screening, 30 entities passed the selection and were included in the sample.

Table 1. Number and Names of Sectors

NO	Sector Code	NO	Sector Code	NO	Sector Code
1	AIMS	15	HRUM	29	BRMS
2	ARII	16	INDY	30	INCO
3	BSSR	17	ITMG	31	ADRO
4	BUMI	18	KKGI	32	BOSS
5	BYAN	19	MBAP	33	TCPI
6	DSSA	20	PTBA	34	TEBE
7	GEMS	21	SMMT	35	TPMA
8	GTBO	22	TOBA	36	TRAM
9	DKFT	23	BBRM	37	CANI
10	COAL	24	CNKO	38	PSSI
11	MDKA	25	DWGL	39	PTIS
12	PSAB	26	FIRE	40	RIGS
13	IFSH	27	MBSS	41	SQMI
14	BESS	28	SGER	42	ANTM

Some listed mining entities were excluded from the sample (marked in red) because their financial reports showed losses (negative earnings) or their data was incomplete during the study period. After selection, 30 entities were deemed eligible and used as the sample.

Table 2. Operational Definitions and Measurement of Variables

Variable	Operational Definition	Indicators/Measurements	Scale
Green Accounting (X1)	The implementation of accounting that considers environmental aspects in corporate activities, measured by the possession of ISO 14001 certification.	ISO 14001 (Dummy): 1 = holds a certificate 0 = does not have a certificate	Nominal
Leverage (X2)	A ratio used to measure a company's ability to utilize funds sourced from debt.	DER = Total Debt / Total Equity	Ratio
Tax Avoidance (Y)	A company's efforts to legally minimize its tax burden in accordance with tax regulations.	ETR = Tax Expense / Pre-Tax Profit	Ratio

4. Results and Discussion

Descriptive Statistical Analysis of Continuous Variables

Descriptive statistical analysis of continuous variables is intended to provide an overview of the key characteristics of the study data, including observations of distribution patterns, skewness, and measures of central tendency namely *the mean*, *median*, and *mode* as representations of the dominant trends in the data.

Table 3. Descriptive Statistical Analysis of Continuous Variables

	N	Min	Max	Mean	Std. Dev.
Green accounting	99	0.00	1.00	0.2929	0.45742
Leverage	99	-18.75	19.27	1.2432	3.45854
Tax Avoidance	99	-6.77	233.24	4.7071	30.71975

Based on the results of descriptive statistics, the *tax avoidance* variable exhibits a relatively wide range of values, with a minimum value in the negative range and a very high maximum value. This suggests significant variation in tax avoidance behavior among the sample companies. The *mean* value *of tax avoidance* is recorded as exceeding *the median*, indicating an asymmetrical data distribution that is *positively* skewed. This is confirmed by the presence of a number of very high outliers, which statistically skew the *mean* value upward.

The relatively low *median* indicates that the majority of entities in the sample engage in moderate levels of *tax avoidance*; only a small fraction engage in very high levels of tax avoidance. The presence of negative values also indicates that, during certain periods, some entities actually exhibited relatively high tax compliance for example, due to tax payments exceeding accounting profits. The large *standard deviation* reflects data heterogeneity, indicating that *tax avoidance* practices are shaped by various entity characteristics, including accounting policies, funding composition, and managerial strategies. This justifies the use of regression analysis to test the impact of *green accounting* and *leverage* on *tax avoidance*, as sufficient data variability allows for the empirical testing of causal relationships between variables.

Test of the Coefficient of Determination

R-Square (R^2) is an indicator in regression analysis that measures the extent to which independent variables can explain the variation in the dependent variable. The R^2 value represents the proportion of variation in the dependent variable that can be explained by the independent variables in the model. In practice, the evaluation of the coefficient of determination typically refers to *the Adjusted R-Square* because this measure accounts for the number of independent variables in the model. *The Adjusted R-Square* demonstrates the collective ability of the independent variables to explain the dependent variable, making it useful for assessing the variables' contribution to the accuracy of the regression model.

Table 4. Test of the Coefficient of Determination

	R	R Square	Adjusted R-Square
1	.102[a]	.010	-.010

Based on Table 4, the R-squared value is 0.010, indicating that green accounting and leverage can explain only 1% of the variation in tax avoidance. Meanwhile, the adjusted R-squared value is – 0.010, indicating that after accounting for the number of independent variables, the explanatory power of the regression model is very low. The negative value of the Adjusted R-Square implies that the study's model has not yet been able to explain the variation in tax avoidance optimally; in fact, its explanatory power is weaker than that of a model without independent variables. This finding suggests that tax avoidance behavior is likely more influenced by factors outside of green accounting and leverage, such as profitability, entity size, asset intensity, corporate governance, or prevailing fiscal policies.

Classical Assumption Tests

Classical assumption tests are a series of statistical tests conducted to assess whether a linear regression model meets the established basic prerequisites. The purpose of meeting these prerequisites is to ensure that the resulting regression estimates are valid, accurate, and free from bias. This study applies tests for multicollinearity, normality, and heteroscedasticity.

Multicollinearity Test

Classical assumption tests are a series of statistical tests conducted to assess whether a linear regression model meets the established basic prerequisites. The purpose of meeting these prerequisites is to ensure that the resulting regression estimates are valid, accurate, and free from bias. This study applies tests for multicollinearity, normality, and heteroscedasticity.

Table 5. Multicollinearity Test

	B	S.E	BETA	TOLERANCE	VIF
Constant	1.466	.417			
Green Accounting	-.004	.011	-.037	.993	1.007
Leverage	-0.695	.770	-.092	.993	1.007

Dependent Variable: Tax Avoidance

F-Test

The F-test is a statistical test used in multiple linear regression analysis to determine whether the independent variables collectively have a significant effect on the dependent variable.

Table 6. F-Test

Model		Df	Mean Square	F	Sig.
1	Regression	2	6.087	0.504	.606
	Residual	96	12,084		
	Total	98			

If the *F-statistic* is greater than 0.05, it can be interpreted that the independent variables do not jointly influence the dependent variable, and vice versa. Based on Table 6, *the F-statistic* is 0.606, which is greater than 0.05, proving that the two independent variables in this study do not have a significant simultaneous effect on variable Y.

t-Test

The t-test in multiple linear regression analysis is a statistical test aimed at determining the impact of each independent variable (X) on the dependent variable (Y) partially or individually.

Table 7. t-Test

Variable	Beta Coefficient	T	Sig	Description
Constant		3.517	.001	0.05
Green Accounting	-.037	-.361	.719	Hypothesis rejected
Leverage	-.092	-.902	.369	Hypothesis rejected

Referring to Table 7, the beta coefficient for the green accounting variable is recorded as – 0.037, accompanied by a significance value of 0.719, which exceeds the 0.05 threshold. These results imply that the adoption of green accounting by corporations is not strong enough to significantly shift the level of tax avoidance. Consequently, the initial hypothesis suggesting that green accounting influences tax avoidance is not supported. Although the negative coefficient suggests a tendency for tax avoidance to decrease as green accounting practices increase, the statistical evidence is not yet strong enough to support this relationship.

The leverage variable recorded a beta coefficient of –0.092 and a significance level of 0.369, which also exceeds 0.05. These figures demonstrate that leverage does not have a significant influence on tax avoidance; in other words, the initial hypothesis regarding the relationship between the two is also rejected. A negative coefficient implies that an increase in the proportion of corporate debt does not significantly drive the decision to pursue tax avoidance. When examined individually, the t-test results confirm that neither green accounting nor leverage was a primary determinant of tax avoidance for the sample entities over the study period.

To strengthen the validity of the research findings, the results of this study were compared with several relevant previous studies. The findings indicate that green accounting does not have a significant effect on tax avoidance. This finding aligns with the research by Marpaung et al., which states that environmental disclosure in many companies remains largely symbolic (symbolic disclosure), and thus has not yet been able to tangibly influence corporate tax policies. In other words, the existence of environmental certifications such as ISO 14001 more accurately reflects a company's commitment to sustainability and reputation, rather than serving as an instrument directly linked to tax avoidance strategies.

Furthermore, the results of this study also indicate that leverage does not have a significant effect on tax avoidance. Theoretically, high debt levels can generate interest expenses that reduce taxable income, potentially encouraging tax avoidance practices. However, in the context of the mining companies studied here, this relationship was not statistically significant. This is likely due to strict tax regulatory oversight and increased transparency in corporate financial reporting, thereby limiting the scope for companies to utilize debt as a means of tax avoidance.

This phenomenon indicates that tax avoidance behavior in mining companies is not solely influenced by environmental accounting practices or corporate financing structures. Other factors such as profitability levels, company size, institutional ownership, and corporate governance mechanisms likely play a greater role in determining corporate tax policies.

Overall, the results of this study indicate that the implementation of green accounting and leverage levels have not yet become the primary determinants in explaining variations in tax avoidance practices among mining companies in Indonesia. This finding implies that " " companies tend to separate their environmental responsibility policies from the tax management strategies they implement.

5. Conclusion

The study's results demonstrate that neither *green accounting* nor *leverage* has a significant impact on *tax avoidance* among mining entities during the 2022–2024 period. The significance value of 0.719 for *green accounting* confirms that holding *ISO 14001* certification as a representation of *green accounting* has not been able to alter corporate policy regarding tax avoidance. On the other hand, the recorded significance value of 0.369 for *leverage* indicates that the debt ratio (*DER*) does not sufficiently influence the tax avoidance behavior of mining entities throughout the study period. Furthermore, both variables failed to demonstrate a significant impact on *tax avoidance*, as evidenced by the *F-test* significance value of 0.606. An R^2 value of only 0.010, along with an *Adjusted* R^2 of – 0.010, confirms that the constructed model is only capable of explaining approximately 1% of the variation *in tax avoidance*; meanwhile, the remaining 99% of the variation is determined by factors outside the scope of this study's model.

Based on these findings, the author recommends that entities in the mining sector not rely on *ISO 14001* certification status or debt ratios as the primary determinants of tax avoidance policies. The study's results indicate that *tax avoidance* behavior is likely more strongly determined by other variables such as profitability levels, entity scale, fixed asset intensity, or corporate governance mechanisms not included in this model. Furthermore, the low *Adjusted* R^2 value reinforces the indication that the model used is insufficient in explaining variations *in tax avoidance*. Therefore, future research is recommended to include additional independent variables that conceptually have a stronger influence on tax avoidance behavior. Additionally, the use of more comprehensive *green accounting* proxies, such as *sustainability report* transparency indices or *ESG disclosure,* will make the research findings more representative and comprehensive.

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