

Leverage, ESG, and Earnings Management: Their Interaction on Tax Avoidance in Indonesia's Coal Sector

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Abstract

This research project examines how earnings management and ESG scores affect tax avoidance tactics used by coal mining firms listed on the Indonesia Stock Exchange between 2020 and 2023. This research utilizes a quantitative methodology, specifically panel data regression and Moderated Regression Analysis (MRA), to examine the moderating effect of leverage on these relationships. Secondary data were sourced from corporate financial statements, sustainability reports, and other ESG databases. The results demonstrate a strong positive link between ESG scores and tax avoidance. Accordingly, businesses with higher ESG scores are more likely to engage in tax avoidance, perhaps using their favorable environmental reputation as an excuse for aggressive tax planning. On the other hand, tax avoidance in the industry is not much impacted by earnings management. Moreover, leverage was determined not to influence the association between ESG scores or earnings management and tax avoidance. These data imply that tax avoidance in coal mining is driven more by corporate strategies balancing reputation and financial performance than by earnings manipulation or debt structure. The study contributes to understanding corporate tax behavior in resource-intensive industries and provides insights on the complexities of ESG and tax compliance for policymakers and stakeholders.

Keywords: *ESG Score, Earnings Management, Tax Avoidance, Leverage, Coal Mining Sector.*

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INTRODUCTION

Tax revenue is the financial foundation of a nation, significantly contributing to the advancement of infrastructure, education, healthcare, and various public sectors. Many corporations exploit legal loopholes to diminish their tax liabilities through tax avoidance, a lawful yet potentially unethical technique. This strategy is considered a form of aggressive tax planning aimed at maximizing net profit by minimizing the tax burden, although this action could potentially lead to a significant decline in state revenue (Rahayu et al., 2024; Syahfitri & Putri, 2024; Wulandari et al., 2023). This phenomenon raises ethical questions about the extent to which a company can place economic interests ahead of its social responsibility to the state and society.

Large companies, especially those working in coal mining, have greater incentives and capabilities to avoid taxes. This trend is due to the complex financial structure, high environmental exposure, and dense business characteristics (Imelda et al., 2022; Syahfitri & Putri, 2024; Wulandari et al., 2023). Tax avoidance is sometimes done along with income management, transfer pricing, and thin capitalization approaches. All of these methods are meant to lower tax responsibilities without breaking any laws (Hidayanti & Haryati, 2024; Nadhifah & Arif, 2020; Octavia & Sari, 2022). Therefore, it is important for governments to

identify the key components that drive this action so that they can create more efficient and responsive supervisory policies.

Disclosure of ESG (Environmental, Social, and Governance) is becoming increasingly important in the context of business globalization and institutional investor pressure. The high ESG score is often associated with the company's ethical commitment to comply with the law, including paying taxes, as its good reputation is seen as a long-term asset to the company (Krisna & Juliarto, 2024; Sadjiarto et al., 2024). Recent studies indicate that organizations with elevated ESG scores generally refrain from employing tax avoidance strategies due to stakeholder pressure and demands for transparency (Oktianti & Sanulika, 2024; Yoon et al., 2021). However, other research indicates that the influence of ESG scores on tax avoidance is not uniformly substantial, fluctuating based on sectoral context and internal corporate governance frameworks (Anggraini & Wahyudi, 2022).

In addition to the ESG score, earnings management is frequently employed as a strategy to evade taxes, as managers can manipulate their representation of financial performance (Octavia & Sari, 2022; Wulandari et al., 2023). Numerous studies have demonstrated that earnings management significantly influences tax avoidance, particularly in industries facing substantial fiscal pressure, such as mining and manufacturing (Hidayanti & Haryati, 2024; Nadhifah & Arif, 2020; Syahfitri & Putri, 2024). However, there are also findings that say that earnings management does not always directly affect corporate tax strategies, because it depends on external factors, governance systems, and market expectations (Hidayanti & Haryati, 2024; Imelda et al., 2022).

Leverage, as a measure of how much companies dependent on debt, also influences the company's involvement in tax avoidance practice. Significantly leveraged companies often have interest obligations that are deductible from taxable income, which lowers their tax burdens (Rahayu et al., 2024; Sianturi & Sanulika, 2023). Some studies say that leverage can moderate the influence of ESG score or earnings management on tax avoidance, as the debt-based financing structure increases the company's chances of strategically manipulating accounting or tax avoidance (Hidayanti & Haryati, 2024; Imelda et al., 2022; Syahfitri & Putri, 2024). However, other studies have shown that leverage does not always have a strong moderation effect in that relationship, depending on the type of industry and the influence of other contextual variables (Octavia & Sari, 2022; Sadjiarto et al., 2024).

Differences in empirical findings in previous studies suggest the need for in-depth exploration of ESG score, earnings management, and leverage interactions to describe tax avoidance phenomena. Most previous studies focused on manufacturing, banking, or public corporations in general, which did not fully reflect the special realities of the mining sector. In fact, the coal mining industry in Indonesia has its own characteristics, separating capital intensity, considerable environmental risks, and approaching strict national fiscal policies.

This study seeks to address the literature gap by confirming the impact of ESG scores and earnings management on tax avoidance activities, and investigating the moderating role of leverage in this connection. The focus is on the period of coal mining companies listed on the Indonesia Stock Exchange from 2020 to 2023. The selection of this sector is based on significant fiscal and high sensitivity to ESG issues, as well as a number of preliminary findings suggesting tax practices through transfer pricing mechanisms and complicated financing schemes (Rahayu et al., 2024; Sianturi & Sanulika, 2023). This research aims to provide a more in-depth analysis of the dynamics of corporate ethics and tax compliance in industries that contribute to the national economy.

To support this analysis, this research theoretically bases itself on stakeholder theory and agency theory. In the framework of stakeholder theory, the company is responsible to all stakeholders, so actions such as tax avoidance that can undermine public trust are contrary to the basic principles of descent (Oktianti & Sanulika, 2024; Sadjiarto et al., 2024). According to agency theory, managers influence earnings for their own benefit due to conflicts of interest

between them and owners; this is supposedly related to tax avoidance strategies (Imelda et al., 2022; Wulandari et al., 2023).

ESG Score

The ESG (Environmental, Social, and Governance) score is an evaluative methodology that measures business sustainability and ethical accountability across three primary dimensions: environment (E), social (S), and governance (G). Organizations with elevated ESG ratings typically possess a superior reputation and exhibit a diminished propensity for employing aggressive tax avoidance strategies. ESG scores function as a non-financial metric that evaluates the degree to which corporations implement environmentally sustainable practices, uphold social responsibilities, and maintain open and accountable governance (Halid et al., 2023). Favorable ESG scores signify social responsibility and environmental adherence, while simultaneously enhancing corporate value and long-term competitiveness in response to global needs for sustainable business practices (Halid et al., 2023; Li et al., 2021; Martiny et al., 2024).

Earnings Management

Income management is a tactical managerial practice that affects profits reported in financial statements to achieve particular goals, such as maintaining a performance reputation, satisfying market expectations, and optimizing managers' financial interests (Gu, 2020). This study evaluated earnings management via a discretionary accrual approach employing the Modified Jones model (Dechow et al., 1995).

Tax Avoidance

Tax avoidance is a strategic maneuver employed by corporations to reduce tax liabilities by exploiting regulatory loopholes while remaining within legal boundaries; nonetheless, it may still endanger reputation and social legitimacy (Duhoon & Singh, 2025). This practice is frequently shaped by internal considerations, including corporate governance, financial performance, and earnings management, with external influences such as regulation and societal pressure (Kasir et al., 2025). In modern economic contexts, tax avoidance is considered a managerial decision oriented towards increasing corporate value but can also create information asymmetry between managers and shareholders. Therefore, understanding of determinants and their effects becomes important in a comprehensive assessment of corporate tax behavior.

Leverage

Leverage refers to the extent to which a firm employs debt to finance its assets and evaluates the degree of financial risk the company undertakes. The Debt to Asset Ratio (DAR) is the proportion of total assets financed through debt; a larger DAR signifies increased reliance on external funding (Narjono et al., 2024). Appropriate leverage can yield advantages through tax shielding; nevertheless, over the appropriate threshold, it elevates financial risk and may lead to liquidity challenges. In this study, leveraging DAR indicators serves as a significant moderating variable that can either enhance or diminish the association between ESG scores and early management of tax avoidance in firms within the coal mining sector.

Based on the conceptual definitions described, the following frameworks and hypotheses are presented:

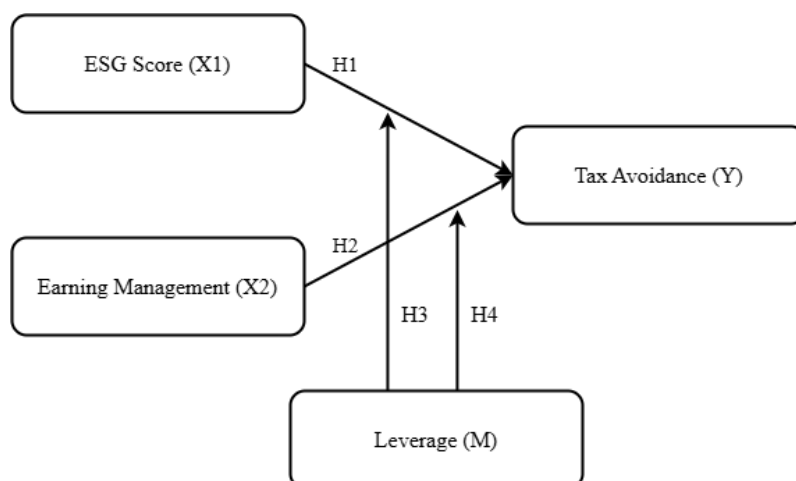


Figure 1. Research Model

Source(s): Author (2025)

- H1:** The ESG Score significantly influences Tax Avoidance in the coal mining sector from IDX 2020-2023
- H2:** Earnings Management significantly influences Tax Avoidance in the coal mining sector from IDX 2020-2023
- H3:** Leverage moderates the influence of ESG Score on Tax Avoidance in the coal mining sector by IDX 2020-2023
- H4:** Leverage moderates the influence of Earnings Management on Tax Avoidance in the coal mining sector by IDX 2020-2023

METHODOLOGY

This investigation utilizes a quantitative approach for causal-comparative analysis. This study aimed to objectively assess the impact of ESG scores and earnings management on tax avoidance and to determine if leverage serves as a moderating variable in this connection.

The research item centers on companies in the coal mining industry based on the Indonesia Stock Exchange (IDX) from 2020 to 2023. This research included second-party information obtained from the company's annual financial statements, sustainability reports, and ESG score data from third-party entities, including the BGK Foundation. Additional data was obtained from the official website of the Indonesian Stock Exchange and many publications, including OJK and other credible financial databases. The research population comprised all companies in the coal mining industry listed on the Indonesia Stock Exchange (IDX) from 2020 to 2023. The purposive sampling method is employed to identify samples according to specific criteria: (1) enterprises in the coal mining sector that were actively registered on the IDX from 2020 to 2023, (2) companies that provide complete and accessible financial statements for the 2020-2023 period, and (3) companies that have information about ESG score for 2020-2023, earnings management, leverage, and tax avoidance calculation components.

This study included four primary variables: tax avoidance as the variable of dependence, ESG score and earnings management as independent variables, and leverage as a moderation variable. The Effective Tax Rate (ETR) is utilized to quantify tax avoidance, which is the ratio between tax burden and pre-tax profit, the lower the ETR, the higher the tax avoidance indications. ESG scores were obtained from third-party databases such as the BGK Foundation based on sustainability disclosures using GRI indicators, reflecting the level of compliance and social responsibility of companies. Earnings management was measured by a discretionary accruals approach using the Modified Jones model (Dechow et al., 1995), which identified accounting manipulations by management to influence profit reporting. Meanwhile, leverage represents the company's financing structure and is calculated from the

ratio of total debt to total assets, which indicates the extent to which the company relies on debt in its operations.

This study employs panel data regression analysis with the Moderated Regression Analysis (MRA) method. This analysis seeks to evaluate the impact of ESG scores and earnings management on tax avoidance and to ascertain if leverage serves as a moderating factor in this relationship. The panel regression model was selected due to the research data comprising both cross-sectional and time dimensions. Analysis was conducted with EViews 13 software, including classical assumption testing and interaction effect testing to identify the role of leverage moderation.

RESULTS AND DISCUSSION

In this study, the Random Effect Model (REM) was used in the panel data regression analysis to investigate the impact of ESG score and earnings management on tax avoidance, with leverage serving as a moderating variable. The REM model was selected based on the assumption that the variations in characteristics among the sampled companies were random and uncorrelated with independent variables, leading to efficient and unbiased estimations. This approach is appropriate for research with panel data involving multiple companies over a given period of time, where the individual effects of each company are thought to have come from random distributions. Thus, the REM model is able to capture intercompany variation in the coal mining sector without having to estimate the fixed effects for each entity.

Classical Assumption Test

Instead of conducting the panel data regression analysis, a classical assumption test was executed to confirm that the regression model satisfies the Best Linear Unbiased Estimator (BLUE) criterion, as detailed in the subsequent section.

Normality Test

Normality tests are performed to determine if it is a normally distributed regression model. The Jarque-Bera test results reveal a Jarque-Bera statistic of 0.890146 and a probability of 0.640777. Since the probability value exceeds 0.05, it can be inferred that the residual data adheres to a normal distribution.

Multicollinearity Test

Table 1. Multicollinearity Test Results

	ESG	EM	LEV
ESG	1.000000	0.506015	-0.003758
EM	0.506015	1.000000	-0.110486
LEV	-0.003758	-0.110486	1.000000

Source(s): Secondary data processed with Eviews 13 (2025)

Multicollinearity tests are conducted to detect substantial linear relationships among independent variables in the regression model. An effective regression model must avoid substantial correlations among independent variables, as these interactions might undermine the accuracy of the regression parameter estimation. This study assessed multicollinearity by examining the correlation coefficients among independent variables. A model is considered free from multicollinearity if the correlation coefficient among independent variables is less than 0.85. The test results indicated that all pairs of independent variables had a correlation coefficient of less than 0.85, signifying the absence of a strong linear link among the free variables. Consequently, it can be asserted that the regression model in this study is devoid of multicollinearity problems and is suitable for further regression analysis.

Hypothesis Test

Panel Data Regression Hypothesis Testing

Table 2. Panel Data Regression Hypothesis Testing

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.16080	5.426250	2.978263	0.0058
ESG	0.214556	0.104394	2.055249	0.0490
EM	-1.980336	1.961913	-1.009391	0.3211
F-statistic	2.092971	R-squared		0.126136
Prob(F-statistic)	0.141558	Adjusted R-squared		0.065870

Source(s): Secondary data processed with Eviews 13 (2025)

The regression equation is derived from the results of the panel data regression analysis presented in Table 2.

$$TA = 16.16080 + 0.214556(ESG) - 1.980336(EM) + \varepsilon$$

A constant value (C) of 16.16080 indicates that if the ESG score and earnings management variables are constant or zero, the company's tax avoidance level is valued at 16.16080. This positive constant value reflects that in general coal mining sector companies have a tendency for tax avoidance at some level that is not influenced by ESG scores or earnings management practices.

Furthermore, the ESG score variable has a coefficient of 0.214556 with a t-statistic value of 2.055249 and a probability value of 0.0490, which is below the 5% significance threshold ($\alpha = 0.05$). This study demonstrates that the ESG score exerted a favorable and significant influence on tax avoidance. A higher ESG score for the company correlates with an increased propensity for tax avoidance. These results may be counterintuitive, but it can be explained that some companies with high ESG performance have the potential to take advantage of their sustainability reputation for aggressive tax planning, with the aim of maintaining financial performance and a positive image in the eyes of investors. This conclusion aligns with legitimacy theory, suggesting that corporations endeavor to reconcile compliance pressures with tax efficiency methods to uphold their social credibility.

The earnings management variable exhibits a negative coefficient of -1.980336 and a probability value of 0.3211, exceeding the 5% significance threshold. This indicates that earnings management did not significantly influence tax avoidance in coal mining enterprises from 2020 to 2023. The negative coefficient of earnings management suggests that enhancements in earnings management methods are associated with a reduction in tax avoidance; however, the association lacks statistical significance. This scenario suggests that corporations may exercise greater caution in profit engineering due to heightened public scrutiny about transparency and governance, particularly following the enhancement of ESG reporting regulations in the Indonesian capital market.

An F-statistic of 2.092971 with a p-value of 0.141558 indicates that the ESG score and earnings management components did not significantly impact tax avoidance, since the p-value surpassed 0.05. Consequently, the overall regression model has failed to adequately account for the heterogeneity in tax avoidance.

The R-squared value of 0.126136 and the Adjusted R-squared value of 0.065870 suggest that roughly 6.59% of the variation in tax avoidance changes can be attributed to ESG score and earnings management, while the remaining 93.41% is accounted for by external variables not considered in this study, including company size, dividend policy, and corporate governance factors.

Moderated Regression Analysis (MRA) Hypothesis Testing

Table 3. Moderated Regression Analysis (MRA) Hypothesis Testing

MRA Model 1				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	29.43103	13.01388	2.261510	0.0317
ESG	-0.031748	0.229586	-0.138281	0.8910
LEV	-25.06611	27.32719	-0.917259	0.3668
ESG*LEV	0.439854	0.481837	0.912867	0.3691
F-statistic	1.296006	R-squared		0.121927
Prob(F-statistic)	0.295242	Adjusted R-squared		0.027848
MRA Model 2				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.77312	8.139242	2.552218	0.0164
EM	6.644228	5.396126	1.231296	0.2285
LEV	10.99058	16.78399	0.654825	0.5179
EM*LEV	-15.13037	11.61178	-1.303020	0.2032
F-statistic	0.579245	R-squared		0.058435
Prob(F-statistic)	0.633502	Adjusted R-squared		-0.042447

Source(s): Secondary data processed with Eviews 13 (2025)

The outcomes of data processing via Moderated Regression Analysis (MRA) in Model 1 yielded the subsequent equation:

$$TA = 29.43103 - 0.031748(ESG) - 25.06611(LEV) + 0.439854(ESG \times LEV) + \varepsilon$$

The results indicate that the ESG score variable possesses a negative coefficient of -0.031748, with a significance value of 0.8910, exceeding the threshold of 0.05. This indicates that the ESG score exerted no substantial influence on tax avoidance. The leverage variable displays a negative coefficient of -25.06611 and a significance value of 0.3668, beyond 0.05, so demonstrating that leverage does not significantly affect tax avoidance.

The interaction variable over the ESG score and leverage exhibits a positive coefficient of 0.439854, with a significance level of 0.3691, beyond 0.05. The findings demonstrate that leverage has no effect on the impact of ESG scores on tax avoidance, as their significance value does not attain the 0.05 threshold. An adjusted R-squared value of 0.027848 indicates that the ESG score, leverage, and interaction factors explained only 2.78% of the variability in tax avoidance, with the remainder attributable to external variables not included in this study's model.

The outcomes of data processing via Moderation Regression Analysis (MRA) in Model 2 yield the subsequent equation:

$$TA = 20.7312 + 6.644228(EM) - 10.99058(LEV) - 15.13037(EM \times LEV) + \varepsilon$$

The estimation findings indicate that the earnings management variable has a positive coefficient of 6.644228, with a significance value of 0.2285, which is over 0.05. This suggests that earnings management does not significantly affect tax avoidance. The leverage variable had a positive coefficient of 10.99085 with a significance value of 0.5179 (>0.05), signifying that leverage did not have a significant effect on tax avoidance.

The interaction variable of earnings management and leverage exhibits a negative coefficient of -15.13037, with a significance value of 0.2032, which exceeds 0.05. The findings demonstrate that leverage does not function as a moderating variable in the interaction between earnings management and tax avoidance, since the significant value surpasses the 5% level. Furthermore, an adjusted R-squared value of -0.042447 signifies that the model's capacity to elucidate variations in tax avoidance is exceedingly poor, suggesting that the independent variables and their interactions fail to effectuate significant alterations in the dependent variables.

Discussion

The Impact of ESG Score on Tax Avoidance

The panel data regression analysis in this study revealed that the ESG score variable exhibited a positive coefficient and a p-value below the significance threshold of 0.05. Consequently, it can be inferred that the ESG score has a positive and considerable impact on tax avoidance among companies in the coal mining sector listed on the IDX from 2020 to 2023. This finding reveals that a higher ESG score correlates with an increased level of tax avoidance by the company. The implementation of sustainability principles via ESG activities has not adequately demonstrated a commitment to tax compliance. Conversely, several corporations may utilize ESG disclosure as a tool for legitimacy to cultivate a favorable perception among the public and investors while concurrently engaging in legitimate tax avoidance tactics to sustain financial performance.

This study's conclusions contrast with those of Yoon et al. (2021), who discovered that ESG performance adversely influenced tax avoidance among enterprises in Korea. It was elucidated that corporations with elevated ESG scores typically refrain from tax avoidance strategies, as such tactics are seen as unethical and may adversely affect the company's social reputation. Nonetheless, the results of this study correspond with those of Krisna & Juliarto (2024), indicating that ESG can positively influence tax avoidance, as it functions as a legitimacy tool to maintain a business's image within the framework of legally efficient tax tactics.

The results were corroborated by Sadjarto et al. (2024), who demonstrated that ESG score impacted tax avoidance, indicating that companies engaged in ESG score activities could still pursue tax avoidance within legally permissible boundaries to safeguard their economic interests and financial stability. This study's empirical findings show a consistent lack of correlation between the adoption of ESG scores and improved tax compliance. In the realm of coal mining enterprises in Indonesia, ESG score practices serve a dual purpose: enhancing corporate reputation and sustainability while also acting as a managerial technique for efficient tax burden management.

The Impact of Earnings Management on Tax Avoidance

The panel data regression analysis in this study reveals that the earnings management variable possesses a negative coefficient and a p-value exceeding the significance level of 0.05. Consequently, it can be inferred that earnings management did not exert a substantial influence on tax avoidance among coal mining sector companies listed on the IDX over the 2020-2023 timeframe. The results indicate that the magnitude of earnings management techniques utilized by companies does not directly affect the level of tax avoidance. The manipulation of accruals in financial statements by management is not solely intended to reduce tax liabilities; it may also serve other objectives, such as ensuring profit stability, achieving performance benchmarks, or preserving investor confidence in the company's financial health.

The findings of this study align with those of Manuel et al. (2022), indicating that earnings management does not influence tax avoidance in enterprises across diverse industries in Indonesia. The study elucidated that earnings management procedures are not

primarily intended to diminish tax liabilities but rather concentrate on financial reporting strategies to align profits with market expectations or sustain business performance stability. The research by Nadhifah & Arif (2020) reveals discrepancies in prior studies concerning the correlation between earnings management and tax avoidance, suggesting that industrial characteristics and the degree of oversight imposed on firms can influence the extent to which profit management practices affect tax planning. This outcome indicates that coal mining companies in Indonesia exercise caution in implementing accrual policies that may lead to tax complications, given the government's extensive oversight of this sector. Consequently, tax evasion in the mining sector is more likely influenced by funding rules, ownership frameworks, or alternative financial methods than by profit management techniques.

The Moderating Influence of Leverage on the Correlation Between ESG Score and Tax Avoidance

The results from the Moderated Regression Analysis (MRA) in Model 1 demonstrate that leverage does not influence the relationship between ESG score and tax avoidance; specifically, corporate debt levels neither amplify nor reduce the effect of ESG on tax avoidance strategies.

In theory, leverage is anticipated to diminish the correlation between ESG score and tax avoidance, as firms with elevated leverage ratios incur interest obligations that may lower tax liabilities by decreasing taxable revenue. This outcome aligns with the study by Sadjarto et al. (2024), which similarly showed that leverage did not influence the relationship between ESG score and tax avoidance. The researcher clarified that firms with substantial leverage do not consistently employ interest burdens to evade taxes, owing to fiscal constraints on interest burden recognition, as mandated by PMK No. 169/PMK.010/2015, which establishes a maximum debt-to-capital ratio of 4:1. Moreover, public firms with elevated ESG scores prioritize reputation and long-term sustainability to eschew aggressive measures that may damage their image.

Additional research by Emanuel et al. (2023) and Manuel et al. (2022) corroborates this finding, asserting that excessive debt utilization can elevate financial risk and diminish investor perception, prompting management to eschew tax avoidance tactics that entail significant leverage. The study by Syahputri (2025) further indicated that leverage serves as a control variable in the relationship between ESG and tax avoidance, although it does not exert a substantial moderating influence.

This research demonstrates that leverage does not significantly moderate the relationship between ESG score and tax avoidance. ESG's robust framework promotes corporate compliance with tax legislation and prudent utilization of fiscal loopholes, even in instances of significant leverage within the company's capital structure. This substantiates the assertion that ethical obligations in ESG exert a greater influence on tax decisions than opportunistic financial motives.

The Moderating Influence of Leverage on the Correlation Between Earnings Management and Tax Avoidance

The results of the Moderated Regression Analysis (MRA) in Model 2 indicate that leverage does not significantly moderate the connection between earnings management and tax avoidance. The extent of company debt neither enhances nor diminishes the impact of earnings management on tax avoidance strategies.

Earnings management is theoretically implemented to manipulate accounting earnings for certain objectives, such as reducing tax liabilities. When leverage is elevated, corporations incur a substantial interest obligation, which consequently diminishes taxable profits. Consequently, management may not require further manipulation via earnings management to mitigate taxes. This elucidates why the correlation between leverage moderation and the effects of earnings management and tax avoidance has become negligible.

This finding aligns with the research of Sadjarto et al. (2024), which indicates that leverage does not alter the association between earnings management and tax avoidance. The study elucidated that high leverage constrains the manager's operational latitude in executing earnings management strategies due to the obligatory fixed interest payments and heightened transparency to creditors. Consequently, management's capacity to execute accrual manipulations influencing tax avoidance has diminished. The research of Firmanzah & Marsoem (2023) concluded that earnings management does not moderate the impact of leverage on tax avoidance, nor does leverage moderate the link between earnings management and tax avoidance.

Consequently, the findings of this study substantiate empirical evidence indicating that leverage does not exert a substantial moderating influence on the link between earnings management and tax avoidance. The company's funding structure does not inherently influence earnings management tactics regarding tax avoidance, as external regulatory restrictions and financial limitations more significantly restrict managers' opportunistic conduct.

CONCLUSION

The study aims to examine the impact of ESG scores and earnings management on tax avoidance strategies among coal mining firms listed on the Indonesia Stock Exchange from 2020 to 2023, in addition to the moderating effect of leverage in this case. Panel data analysis and moderation regression indicated that ESG scores had a positive and significant impact on tax avoidance, indicating that firms with higher ESG ratings tend to pursue aggressive tax avoidance tactics despite their social commitments and duties. The data suggest that the principle of cessation via ESG activities does not entirely represent a firm's dedication to tax compliance but may also serve as a legitimacy mechanism to sustain financial performance. Earnings management, in contrast, showed no substantial impact on tax avoidance, indicating that profit manipulation strategies were not explicitly employed to diminish tax liabilities for coal industry enterprises during the study period. Furthermore, leverage weakly moderates the relationship between ESG score and earnings management as well as tax avoidance, suggesting that the debt-oriented corporate financing structure weakly influences the effect of the two independent variables on tax avoidance behavior.

The research findings enhance the comprehension that, within the capital-intensive and high-risk mining business, tax avoidance conduct is shaped not just by ethical considerations and profit management but also by intricate managerial methods aimed at concurrently managing corporate image and tax efficiency. It is advisable to extend the observation period to acquire a more thorough understanding of tax evasion behavior and to augment the sample size of companies examined to enhance the representativeness of the results and the robustness of the generalizations drawn. Furthermore, it is recommended to investigate additional variables that may influence tax avoidance practices, including corporate governance, corporation size, and dividend policies, to provide a more thorough understanding of the determinants of tax avoidance within the pertinent industrial sector.

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