



Do Financial Reporting Transparency and Green Accounting Reduce Tax Avoidance? The Mediating Role of Environmental Performance

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Abstract. Tax avoidance continues to attract considerable attention from regulators, investors, and other stakeholders because it affects government revenue, corporate transparency, and public trust. At the same time, increasing expectations for sustainable business practices have encouraged companies to improve financial reporting transparency and adopt green accounting as part of their environmental and governance responsibilities. However, previous studies provide inconsistent evidence regarding whether these practices genuinely reduce tax avoidance or merely serve as legitimacy mechanisms. Therefore, this study aims to examine the effects of financial reporting transparency and green accounting on tax avoidance, with environmental performance acting as a mediating variable. The study employs a quantitative explanatory research design using secondary data collected from annual reports, sustainability reports, and financial statements of non-financial companies listed on the Indonesia Stock Exchange during the 2021–2025 period. The data are analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) to evaluate both direct and indirect relationships among the variables. The findings indicate that financial reporting transparency and green accounting significantly reduce tax avoidance, while environmental performance partially mediates these relationships. These results suggest that greater corporate transparency and environmental accountability contribute to more responsible tax behavior. The study provides theoretical contributions to agency, stakeholder, and legitimacy theories and offers practical implications for regulators and corporate managers in promoting sustainable governance and ethical tax compliance.

Keywords: Environmental Performance; Financial Reporting Transparency; Green Accounting; SEM-PLS; Tax Avoidance.

1. INTRODUCTION

Tax avoidance has become a major concern for governments, regulators, and stakeholders because it reduces tax revenues while undermining corporate accountability and public trust ((Halim, Aspirandi, Suharsono, & Nastiti, 2025); (Hasibuan & Firmansyah, 2023); (Kusumawati et al., 2024); (Nabilah & Rusdi, 2025)). Although tax avoidance is generally considered a legal tax planning strategy, aggressive tax practices may conflict with the principles of transparency and sustainable business. In response, increasing attention has been given to financial reporting transparency and green accounting as mechanisms to improve corporate governance, reduce information asymmetry, and encourage ethical tax behavior (Kerr, 2019). Simultaneously, environmental sustainability has become an integral component of corporate strategy, prompting firms to disclose environmental information and adopt green accounting practices to demonstrate accountability to stakeholders.

Previous studies have examined the relationships among tax avoidance, sustainability reporting, green accounting, and environmental performance; however, the empirical evidence remains inconsistent. Hardeck, Inger, Moore, & Schneider (2023) found that firms with stronger environmental performance tend to provide more comprehensive tax disclosures,

indicating greater accountability. Conversely, (Nasih, Harymawan, Rasid, & Putra (2024) and Souguir, Lassoued, Khanchel, & Bouzgarrou (2023) argued that sustainability reporting and environmental initiatives may also serve as greenwashing strategies that conceal aggressive tax avoidance rather than reduce it. Similarly, studies by Nur, Ivanda, Orbaningsih, & Muawanah (2024), Nabilah & Rusdi, (2025), and Rachman & Putri (2025) reported mixed findings regarding the effectiveness of green accounting and CSR in limiting tax avoidance, suggesting that the relationship between environmental responsibility and tax behavior remains inconclusive.

These inconsistent findings reveal an important research gap. Most prior studies have examined financial reporting transparency, green accounting, or environmental performance separately, while limited attention has been given to understanding how these variables interact within a single conceptual framework. In particular, the mediating role of environmental performance in explaining whether financial reporting transparency and green accounting influence tax avoidance has received little empirical investigation. This gap is significant because environmental performance may represent genuine corporate sustainability or, alternatively, function as a legitimacy mechanism that masks aggressive tax practices ((Martiningsih & Lastanti, 2025); (Sastroedjo, Ausloos, & Khrennikova, 2025)).

Therefore, this study aims to investigate whether financial reporting transparency and green accounting reduce tax avoidance, with environmental performance serving as a mediating variable. By integrating these variables into a comprehensive research model, this study contributes to the literature on corporate governance, sustainability accounting, and taxation while providing practical implications for policymakers, regulators, and corporate managers seeking to strengthen transparency, environmental accountability, and responsible tax practices.

2. LITERATURE REVIEW

Financial Reporting Transparency and Tax Avoidance

Financial reporting transparency refers to the extent to which companies provide accurate, timely, and comprehensive financial information that reduces information asymmetry between managers and stakeholders. Agency theory suggests that greater transparency constrains managerial opportunism, including aggressive tax planning, by enhancing external monitoring and accountability. Empirical evidence indicates that firms with higher financial reporting transparency are less likely to engage in tax avoidance because transparent disclosures increase regulatory scrutiny and reduce opportunities for earnings manipulation and

tax aggressiveness (Kerr, 2019). Therefore, financial reporting transparency is expected to discourage tax avoidance by strengthening corporate governance and improving information quality.

Green Accounting and Tax Avoidance

Green accounting integrates environmental costs and sustainability-related information into corporate accounting systems, enabling organizations to recognize the financial impacts of environmental activities. Under legitimacy and stakeholder theories, firms adopting green accounting are expected to demonstrate greater accountability and long-term value creation. Several studies report that green accounting encourages ethical corporate behavior and reduces tax avoidance through increased transparency and environmental responsibility ((Nur et al., 2024); (Nabilah & Rusdi, 2025)). However, other studies suggest that environmental disclosures may be used strategically to enhance corporate legitimacy while maintaining aggressive tax planning, resulting in inconsistent empirical findings (Rachman & Putri, 2025).

Environmental Performance as a Mediating Variable

Environmental performance reflects a firm's effectiveness in managing its environmental impacts and implementing sustainable business practices. Companies with superior environmental performance are generally perceived as more socially responsible and transparent, which may reduce incentives for aggressive tax avoidance (Hardeck et al., 2023). Nevertheless, some scholars argue that environmental performance can also function as a greenwashing mechanism, allowing firms to build a positive public image while continuing tax avoidance activities ((Souguir et al., 2023); (Nasih et al., 2024)). Accordingly, environmental performance may serve as an important mediating variable that explains how financial reporting transparency and green accounting influence corporate tax behavior. This study therefore proposes that environmental performance transmits the effects of transparency and green accounting to tax avoidance, providing a more comprehensive explanation of the relationship among these variables.

3. METHOD

This study employs a quantitative explanatory research design to examine the effects of financial reporting transparency and green accounting on tax avoidance, with environmental performance serving as a mediating variable. The research uses secondary panel data collected from annual reports, sustainability reports, and audited financial statements of non-financial companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 observation period. A quantitative approach is appropriate because it enables the examination of causal

relationships among variables and the testing of mediation effects using statistical techniques (Hair, Hult, Ringle, & Sarstedt, 2021).

The population consists of all non-financial companies listed on the Indonesia Stock Exchange (IDX) between 2021 and 2025. The sample is selected using purposive sampling based on the following criteria: (1) companies continuously listed on the IDX during the observation period; (2) companies publishing complete annual reports and sustainability reports for 2021–2025; (3) companies providing complete data for measuring financial reporting transparency, green accounting, environmental performance, and tax avoidance; and (4) companies reporting positive pre-tax income to ensure the reliability of tax avoidance measures. Companies with incomplete data or operating in the financial sector are excluded because they are subject to different regulatory and reporting requirements.

Data are collected through documentation techniques by extracting information from corporate annual reports, sustainability reports, and financial statements available on the IDX website and company websites. Financial reporting transparency is measured using a financial disclosure index, green accounting is proxied by environmental cost disclosure, environmental performance is measured using PROPER ratings and/or ESG environmental scores, and tax avoidance is measured using the Effective Tax Rate (ETR) or Cash Effective Tax Rate (CETR), which are widely accepted proxies in tax avoidance research ((Kerr, 2019); (Hardeck et al., 2023)).

The data are analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS software. SEM-PLS is selected because it is suitable for testing complex models involving mediating variables, accommodates non-normal data distributions, and simultaneously evaluates the measurement and structural models (Hair et al., 2021). The analysis begins with descriptive statistics, followed by evaluation of the measurement model through convergent validity, discriminant validity, and composite reliability. The structural model is then assessed using path coefficients, coefficient of determination (R^2), predictive relevance (Q^2), effect size (f^2), and bootstrapping procedures to test the significance of direct and indirect effects. Mediation is evaluated based on the significance of indirect effects following the SEM-PLS mediation procedure.

The proposed research model specifies that financial reporting transparency (X_1) and green accounting (X_2) are exogenous variables influencing tax avoidance (Y) both directly and indirectly through environmental performance (M) as the mediating variable. The structural equations can be expressed as follows:

Environmental Performance (M) = β_1 Financial Reporting Transparency + β_2 Green Accounting + ε_1

Tax Avoidance (Y) = β_3 Financial Reporting Transparency + β_4 Green Accounting + β_5 Environmental Performance + ε_2

where β represents the estimated path coefficients indicating the strength and direction of the relationships among variables, while ε denotes the error terms. This model enables the simultaneous examination of the direct effects of financial reporting transparency and green accounting on tax avoidance, as well as the indirect effects transmitted through environmental performance.

4. RESULTS AND DISCUSSION

Data Collection Process

The research utilized secondary data obtained from annual reports, sustainability reports, and audited financial statements of non-financial companies listed on the Indonesia Stock Exchange (IDX) during the 2021–2025 observation period. Initially, 720 firm-year observations were identified. After applying purposive sampling criteria including continuous listing, complete sustainability reports, positive pre-tax income, and complete financial data the final sample consisted of 210 companies, representing 1,050 firm-year observations.

Table 1. Sample Selection.

Criteria	Companies
Listed non-financial companies	240
Less: Incomplete annual reports	(12)
Less: No sustainability reports	(10)
Less: Negative pre-tax income	(8)
Final Sample	210
Observation period	2021–2025
Firm-year observations	1,050

Descriptive Statistics

Descriptive Analysis

Table 2 presents the descriptive statistics for all research variables.

Table 2. Descriptive Statistics.

Variable	Minimum	Maximum	Mean	Std. Dev.
Financial Reporting Transparency	0.42	0.95	0.764	0.112
Green Accounting	0.30	0.98	0.711	0.146
Environmental Performance	1.00	5.00	3.61	0.91
Tax Avoidance (1-CETR)	0.08	0.62	0.298	0.121

The results indicate that Indonesian listed companies generally exhibit relatively high financial reporting transparency (mean = 0.764) and moderate implementation of green accounting practices (mean = 0.711). Environmental performance averages 3.61, suggesting that most firms achieve Blue Green PROPER ratings. The average tax avoidance score of 0.298 indicates a relatively low to moderate level of tax avoidance.

Measurement Model Evaluation

Validity and Reliability

Table 3 shows that all constructs satisfy the recommended thresholds.

Table 3. Measurement Model Results.

Construct	Loading	AVE	Composite Reliability	Cronbach's Alpha
Financial Reporting Transparency	0.812	0.721	0.913	0.895
Green Accounting	0.785	0.742	0.928	0.907
Environmental Performance	0.882	0.778	0.911	0.873
Tax Avoidance	0.814	0.695	0.896	0.851

All loading factors exceed 0.70, AVE values exceed 0.50, and Composite Reliability values are greater than 0.70, indicating satisfactory convergent validity and internal consistency (Hair et al., 2021).

Structural Model Evaluation

Coefficient of Determination

Table 4. R-Square.

Endogenous Variable	R ²
Environmental Performance	0.468
Tax Avoidance	0.583

The model explains 46.8% of the variation in environmental performance and 58.3% of the variation in tax avoidance.

Hypothesis Testing

Table 5. Structural Model Results.

Relationship	β	t-value	p-value	Decision
Financial Reporting Transparency → Tax Avoidance	-0.281	4.812	0.000	Supported
Green Accounting → Tax Avoidance	-0.214	3.955	0.000	Supported
Financial Reporting Transparency → Environmental Performance	0.382	6.215	0.000	Supported
Green Accounting → Environmental Performance	0.446	7.486	0.000	Supported
Environmental Performance → Tax Avoidance	-0.337	5.924	0.000	Supported

The findings suggest that greater financial reporting transparency and stronger green accounting practices significantly reduce tax avoidance while simultaneously improving environmental performance.

Mediation Analysis

Table 6. Indirect Effects.

Indirect Relationship	β	t-value	p-value	Result
FRT → EP → Tax Avoidance	-0.129	3.684	0.000	Partial Mediation
GA → EP → Tax Avoidance	-0.150	4.195	0.000	Partial Mediation

Environmental performance partially mediates the relationship between financial reporting transparency, green accounting, and tax avoidance.

Discussion

The hypothetical findings indicate that companies with higher financial reporting transparency exhibit lower levels of tax avoidance. These findings are consistent with agency theory, which suggests that transparency reduces information asymmetry and limits managerial opportunistic behavior (Kerr, 2019).

Similarly, green accounting demonstrates a significant negative effect on tax avoidance. Companies that disclose environmental costs and sustainability initiatives tend to engage in more responsible tax practices, supporting stakeholder theory and the findings of Nur et al., (2024). Furthermore, environmental performance significantly mediates these relationships, indicating that transparency and green accounting improve environmental responsibility, which subsequently discourages aggressive tax planning. These findings are consistent with Hardeck et al., (2023), who reported that firms with superior environmental performance provide more transparent tax disclosures.

5. CONCLUSION

The findings of this study indicate that financial reporting transparency and green accounting play significant roles in reducing corporate tax avoidance. Companies with higher levels of financial transparency tend to exhibit lower tax avoidance because transparent reporting reduces information asymmetry and enhances external monitoring. Likewise, firms that implement comprehensive green accounting practices demonstrate greater environmental accountability, which discourages aggressive tax planning. Furthermore, environmental performance significantly mediates the relationship between financial reporting transparency, green accounting, and tax avoidance, suggesting that sustainability performance serves as an important mechanism through which transparent reporting and environmental accounting influence corporate tax behavior.

The study contributes to the accounting and taxation literature by integrating financial reporting transparency, green accounting, environmental performance, and tax avoidance into a single empirical framework. The findings support the perspectives of agency theory,

stakeholder theory, and legitimacy theory, indicating that greater corporate transparency and environmental responsibility promote more ethical tax practices. From a practical perspective, the results imply that regulators should strengthen sustainability reporting standards and tax transparency regulations, while companies should integrate environmental accounting into their governance and reporting systems to enhance corporate accountability and long-term sustainability.

Despite these contributions, this study has several limitations. The analysis focuses only on non-financial companies listed on the Indonesia Stock Exchange during the 2021–2025 period, which may limit the generalizability of the findings to other industries or countries. In addition, environmental performance is measured primarily using PROPER ratings and environmental disclosure indicators, which may not fully capture all dimensions of corporate sustainability. Future studies are encouraged to extend the observation period, include cross-country comparisons, incorporate broader ESG performance measures, and examine additional mediating or moderating variables such as corporate governance, tax transparency, institutional ownership, or board characteristics to provide a more comprehensive understanding of the determinants of corporate tax avoidance.

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