

***ESG PERFORMANCE AND CORPORATE TAX AVOIDANCE: DOES FINANCIAL LEVERAGE SHAPE THE RELATIONSHIP? EVIDENCE FROM INDONESIAN PROPERTY SECTOR***

**KINERJA ESG DAN PENGHINDARAN PAJAK PERUSAHAAN: APAKAH LEVERAGE KEUANGAN MEMBENTUK HUBUNGAN INI? BUKTI DARI SEKTOR PROPERTI INDONESIA**

**Maulidia Akhir<sup>1\*</sup>, Suci Juniartika<sup>2</sup>**  
Politeknik Negeri Pontianak<sup>1,2</sup>  
maulidia.akhir@polnep.ac.id<sup>1</sup>

**ABSTRACT**

*This study examines the effect of Environmental, Social, and Governance (ESG) performance on corporate tax avoidance in Indonesian property sector firms listed on the Indonesia Stock Exchange during the period 2022 to 2024, and investigates whether financial leverage moderates this relationship. Drawing on stakeholder theory, legitimacy theory, and agency theory, this study employs panel data regression using the Random Effect Model (REM) selected through Chow, Hausman, and Lagrange Multiplier tests. Tax avoidance is proxied by the Effective Tax Rate (ETR), ESG performance is measured by ESG scores, financial leverage is measured by the Debt-to-Asset Ratio, and firm size is included as a control variable. The baseline panel regression results indicate that ESG performance does not significantly affect ETR, whereas leverage exerts a significant positive effect on ETR. The Moderated Regression Analysis (MRA) results reveal that ESG performance has a significant positive effect on ETR when moderated by leverage, and that leverage significantly moderates the ESG-ETR relationship through two interaction terms, one attenuating and one amplifying the effect. The moderating role of financial leverage on the ESG-tax avoidance nexus is confirmed, contributing empirical evidence to the intersection of sustainability and corporate fiscal behavior in the Indonesian property sector.*

**Keywords:** ESG Performance, Tax Avoidance, Financial Leverage, Moderated Regression Analysis, Indonesian Property Sector.

**ABSTRAK**

Penelitian ini mengkaji pengaruh kinerja ESG (Environmental, Social, and Governance) terhadap penghindaran pajak perusahaan sektor properti Indonesia yang terdaftar di Bursa Efek Indonesia periode 2022-2024, serta menginvestigasi apakah leverage keuangan memoderasi hubungan tersebut. Berlandaskan stakeholder theory, legitimacy theory, dan agency theory, penelitian ini menggunakan regresi data panel dengan Random Effect Model (REM) yang dipilih melalui uji Chow, Hausman, dan Lagrange Multiplier. Penghindaran pajak diprosikan dengan Effective Tax Rate (ETR), kinerja ESG diukur dengan skor ESG, leverage keuangan diukur dengan Debt-to-Asset Ratio, dan ukuran perusahaan dimasukkan sebagai variabel kontrol. Hasil regresi data panel dasar menunjukkan bahwa kinerja ESG tidak berpengaruh signifikan terhadap ETR, sedangkan leverage berpengaruh positif signifikan. Hasil Moderated Regression Analysis (MRA) menunjukkan bahwa kinerja ESG berpengaruh positif signifikan terhadap ETR ketika dimoderasi oleh leverage, dan leverage secara signifikan memoderasi hubungan ESG-ETR melalui dua variabel interaksi. Peran moderasi leverage keuangan atas hubungan ESG-penghindaran pajak terkonfirmasi, memberikan bukti empiris pada persimpangan keberlanjutan dan perilaku fiskal perusahaan di sektor properti Indonesia.

**Kata Kunci:** Kinerja ESG, Penghindaran Pajak, Leverage Keuangan, Moderated Regression Analysis, Sektor Properti Indonesia.

**INTRODUCTION**

In recent decades, corporate sustainability has emerged as a central concern for firms, investors, regulators, and policymakers worldwide. The concept of Environmental, Social, and

Governance (ESG) performance has evolved from a peripheral corporate reporting obligation into a strategic mechanism that supports corporate sustainability by promoting transparency, ethical governance, and long-term value

creation in line with emerging regulatory frameworks (Silalahi et al., 2025). As firms operating in developing economies face increasing pressure to align their business conduct with global sustainability standards, the role of ESG performance in shaping corporate financial behavior has attracted growing scholarly attention. The question of whether a firm's commitment to ESG principles constrains opportunistic financial behavior, particularly in the domain of taxation, has become a critical topic at the intersection of accounting, finance, and sustainability research.

Corporate tax avoidance represents a significant fiscal and governance challenge in developing economies, where public revenues are critical for sustainable development and enforcement capacity is often uneven (Mansour and Alomair, 2026). Tax aggressiveness, broadly defined as a company's strategy to minimize tax burdens through planning, whether legally through tax avoidance or illegally through tax evasion, can impact state revenue and create inequality within the tax system (Aini and Ambarita, 2026; Putri and Nuswandari, 2023). Empirical studies have consistently demonstrated that corporate tax behavior is shaped not only by financial variables but also by governance and ethical orientations. Notably, firms that engage actively in ESG activities tend to be more transparent and responsible in their tax payments, suggesting that ESG engagement functions as a disciplining mechanism against aggressive fiscal behavior (Lumbantobing and Harahap, 2025). From a stakeholder-theoretic perspective, ESG-committed firms are expected to internalize the social contract with the state, wherein tax compliance is treated as an integral component of responsible corporate citizenship (Amarna et al., 2024).

The theoretical foundation underpinning the ESG-tax nexus draws from multiple complementary frameworks. Legitimacy theory posits that firms use ESG disclosure as a tool to signal socially responsible behavior, though empirical evidence from Indonesia suggests that sustainability reporting can simultaneously serve as a smokescreen concealing underlying tax avoidance practices, a phenomenon described as impression management (Nasih et al., 2024). Stakeholder theory, in contrast, argues that genuine ESG commitment compels firms to align their conduct with the expectations of a broad range of stakeholders, including governments and regulators, thereby reducing incentives for tax aggressiveness (Amarna et al., 2024). Agency theory further emphasizes that superior ESG performance reduces information asymmetry and curtails managerial opportunism, with ESG serving as a governance mechanism that strengthens internal control and external supervision (Jiang et al., 2024). By integrating these perspectives, recent studies have advanced a context-sensitive understanding of ESG effectiveness that helps reconcile mixed findings in the existing literature (Mansour and Alomair, 2026).

A growing body of empirical work has examined the relationship between ESG performance and corporate tax behavior across diverse institutional contexts. Using panel data from Chinese A-share listed firms, Jiang et al. (2024) document that ESG performance significantly reduces corporate tax avoidance through channels including the alleviation of financing constraints, improved internal control quality, and strengthened external supervision. Similarly, evidence from South Korean listed companies reveals a statistically significant negative association between

tax avoidance and innovation, and that firms with stronger ESG performance mitigate these detrimental effects, particularly through the social and governance dimensions (Lee, 2025). In a cross-country study of 2,464 publicly listed non-financial firms from 14 developing economies, Mansour and Alomair (2026) find that stronger ESG performance is associated with significantly lower levels of tax avoidance; however, this effect is highly contingent on institutional quality and is most pronounced in governance-strong environments. In the Indonesian context, Lumbantobing and Harahap (2025) and Aini and Ambarita (2026) provide evidence that ESG has a significant negative effect on tax aggressiveness among energy sector and state-owned enterprise samples, respectively, corroborating the discipline hypothesis. For French-listed companies, Elamer et al. (2024) further demonstrate that ESG rating negatively and significantly moderates the relationship between corporate tax avoidance and firm market valuation, highlighting the nuanced interplay between sustainability commitments and fiscal strategies.

Beyond taxation, ESG performance has been shown to significantly influence corporate capital structure and leverage behavior. Asimakopoulos et al. (2023) find that both economic policy uncertainty and ESG ratings are negatively associated with leverage, and that ESG ratings mitigate the detrimental impact of uncertainty on corporate financing decisions. Mo et al. (2024) demonstrate that ESG responsibility fulfillment inhibits leverage manipulation among Chinese-listed companies by generating reputational and informational effects that mitigate financing constraints and enhance information transparency. Shan and Zhu (2024) extend this evidence by

showing that ESG ratings inhibit leverage manipulation through improvements in social reputation, information transparency, and financing constraints, with the governance dimension of ESG exhibiting the strongest effect. From the property and real estate sector, Wu and Feng (2021) provide evidence that higher ESG disclosure levels are associated with lower cost of debt, higher credit ratings, and greater financial flexibility, indicating that lenders integrate ESG evaluations into their lending decisions. This accumulating evidence suggests a meaningful structural link between a firm's ESG orientation and its leverage dynamics, a relationship that carries important implications for understanding how leverage may condition the ESG-tax nexus.

The role of leverage in shaping corporate tax behavior has been extensively examined in prior literature, albeit with inconsistent results across sectors and methodological approaches. Leverage represents the extent to which a firm relies on debt financing, and under the trade-off theory of capital structure, the interest tax shield provides a direct incentive for leveraged firms to engage in less aggressive tax planning, as debt itself constitutes a tax-deductible expense (Putri et al., 2023; Ramdhani et al., 2022). Consistent with this argument, Jonathan and Siagian (2025) find that leverage is the single most significant individual determinant of corporate tax strategy in the Indonesian energy sector, while Isdianawati and Fisher (2025) confirm that leverage is significantly associated with tax aggressiveness among Indonesian basic and chemical industry firms. In the property and real estate sector, Putri et al. (2023) demonstrate that leverage has a significant effect on tax aggressiveness, while Ramdhani et al. (2022) document

a simultaneous influence of leverage on tax aggressiveness among property sector firms listed on the Indonesia Stock Exchange. However, contrasting evidence from Silaen et al. (2024) and Wijaya (2019) indicates that leverage does not significantly affect tax avoidance or tax aggressiveness in property and consumer goods sectors, respectively, underscoring the context-dependence of this relationship. Anggara and Desitama (2023) further report a significant positive effect of leverage on tax aggressiveness, while Putri and Nuswandari (2023) find a significant negative effect in the same sector, illustrating the empirical ambiguity that pervades the existing literature.

Against this backdrop, theoretical reasoning and emerging evidence suggest that leverage may function not merely as an independent determinant of tax behavior but as a boundary condition that moderates the relationship between ESG performance and tax avoidance. Firms with high leverage face increased scrutiny from creditors and capital markets, who have grown increasingly attentive to ESG considerations in their lending and investment decisions (Wu and Feng, 2021; Priem and Gabellone, 2024). Highly leveraged firms may therefore be constrained in their capacity to finance ESG-related commitments, as high debt levels increase financial risk and reduce discretionary expenditure on sustainability initiatives (Ida et al., 2025). Simultaneously, Amarna et al. (2024) demonstrate that financial situation moderates the incidence of ESG disclosure on tax practices, though their findings are specific to profitability rather than leverage. The question of whether financial leverage specifically amplifies or attenuates the ESG-tax avoidance relationship remains largely unaddressed in the literature, particularly within the context of Indonesian

property firms. Jamilah et al. (2025) provide partial evidence from a related domain, finding that leverage moderates the relationship between corporate social responsibility, governance, and tax aggressiveness in the mining sector, underscoring the theoretical plausibility of leverage as a moderating mechanism.

The Indonesian property sector provides a particularly compelling empirical setting for this inquiry. Property and real estate companies in Indonesia operate in a capital-intensive environment characterized by high leverage ratios, significant exposure to regulatory and environmental scrutiny, and growing pressure to adopt ESG reporting standards. Prior studies focusing on this sector have predominantly examined the direct effects of financial variables on tax behavior (Silaen et al., 2024; Putri et al., 2023; Ramdhani et al., 2022; Putri and Nuswandari, 2023), while ESG-focused studies in Indonesia have largely concentrated on energy sector firms (Lumbantobing and Harahap, 2025; Jonathan and Siagian, 2025) or state-owned enterprises (Aini and Ambarita, 2026). Furthermore, broader ESG research in the Southeast Asian context has predominantly addressed the relationship between ESG and firm value (Lerskullawat and Ungphakorn, 2024; Truong, 2024) or ESG and financial performance (Engko and Rahmiati, 2025; Weston and Nnadi, 2021; Gao et al., 2023), with comparatively limited attention to the ESG-tax nexus moderated by capital structure. Existing Indonesian studies also reveal prior contradictions regarding the role of leverage as a moderating variable, particularly in the property sector (Ida et al., 2025). Importantly, ESG disclosure in Indonesian firms has been linked to greenwashing strategies, wherein sustainability reporting conceals rather

than constrains tax avoidance (Nasih et al., 2024; Asmoro et al., 2024), raising questions about the conditions under which ESG commitment genuinely disciplines fiscal behavior.

This study aims to address the aforementioned gaps by examining the effect of ESG performance on corporate tax avoidance in Indonesian property sector firms and investigating whether financial leverage moderates this relationship. Drawing on stakeholder theory, legitimacy theory, and agency theory, the study hypothesizes that higher ESG performance constrains tax avoidance, and that this constraining effect is conditioned by a firm's level of financial leverage. By focusing on the property and real estate sector, an understudied but strategically important industry in Indonesia, and incorporating leverage as a moderating variable, this research contributes to the growing literature on the intersection of sustainability and corporate taxation in emerging markets. The findings are expected to carry implications for regulators, investors, and corporate managers seeking to align ESG commitments with responsible tax behavior, particularly in contexts where financial structure may shape the effectiveness of sustainability-oriented governance (Mansour and Alomair, 2026; Silalahi et al., 2025; Zhang and Liu, 2022).

## **METHOD**

This study employs a quantitative research design using secondary panel data obtained from the annual reports, financial statements, and sustainability reports of property and real estate sector companies listed on the Indonesia Stock Exchange (IDX) during the period 2022 to 2024. The population comprises all property and real estate companies with complete data availability for the study

variables. Sample selection was conducted using a purposive sampling method, resulting in five companies with three observation years, yielding 15 balanced panel observations. The selection criteria required firms to have consistently reported ESG scores from 2022 to 2024 and to have complete financial data for all variables under investigation.

The dependent variable in this study is corporate tax avoidance, proxied by the Effective Tax Rate (ETR), calculated as income tax expense divided by pre-tax profit. A lower ETR indicates a higher degree of tax avoidance, consistent with prior literature (Aini and Ambarita, 2026; Silaen et al., 2024; Putri and Nuswandari, 2023). The main independent variable is ESG performance, measured using ESG scores obtained from the Refinitiv database, which provides composite ESG ratings across environmental, social, and governance dimensions (Mansour and Alomair, 2026; Jiang et al., 2024). The moderating variable is financial leverage, measured by the Debt-to-Asset Ratio (DAR), defined as total debt divided by total assets (Ida et al., 2025; Putri et al., 2023). Firm size, measured as the natural logarithm of total assets, is included as a control variable, consistent with established practice in prior studies (Silaen et al., 2024; Anggara and Desitama, 2023).

Panel data analysis was conducted using EViews 13 software. Model selection followed a three-stage procedure: the Chow test to determine between the Common Effect Model (CEM) and Fixed Effect Model (FEM); the Hausman test to select between FEM and Random Effect Model (REM); and the Lagrange Multiplier test to confirm the superiority of REM over CEM. Subsequently, the baseline panel regression model was estimated,

followed by Moderated Regression Analysis (MRA) to test the moderating role of financial leverage on the ESG-tax avoidance relationship. The MRA model includes two interaction terms: M1, representing the interaction between ESG and leverage, and M2, representing the interaction between leverage and ESG, to capture the directional dynamics of the moderating effect. The two regression equations estimated are as follows:

**Baseline Model:**

$$ETR = a + b1(ESG) + b2(LEV) + b3(SIZE) + e$$

**MRA Model:**

$$ETR = a + b1(ESG) + b2(LEV) + b3(M1) + b4(M2) + e$$

Where ETR denotes the effective tax rate, ESG denotes the ESG performance score, LEV denotes financial leverage (DAR), SIZE denotes firm size (ln total assets), M1 denotes the interaction term (ESG x LEV), M2 denotes the second interaction term (LEV x ESG), a is the intercept, b1 through b4 are the slope coefficients, and e is the error term.

**RESULT AND DISCUSSION**

**Panel Data Model Selection**

Prior to estimation, model selection procedures were conducted to identify the most appropriate panel data specification. The Chow test was first applied to select between the Common Effect Model and the Fixed Effect Model. The results are presented in Table 1.

**Table 1. Chow Test Results**

Effects Test	Statistic	d.f.	Prob.
Cross-section F	103.813157	(4,7)	0.0000
Cross-section Chi-square	61.495404	4	0.0000

Source: EViews 13 Output (2026)

The Chow test yields a Cross-section F probability of 0.0000, which is below the significance threshold of 0.05. Accordingly, the null hypothesis is rejected and the Fixed Effect Model is preferred over the Common Effect

Model. The Hausman test was subsequently applied to determine whether the Fixed Effect Model or the Random Effect Model is more efficient, with results presented in Table 2.

**Table 2. Hausman Test Results**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.357376	3	0.5016

Source: EViews 13 Output (2026)

The Hausman test produces a probability of 0.5016, exceeding the 0.05 threshold. The null hypothesis therefore cannot be rejected, indicating that the Random Effect Model is more efficient than the Fixed Effect Model. The

Lagrange Multiplier test (Breusch-Pagan) was subsequently performed to confirm the superiority of the Random Effect Model over the Common Effect Model, as reported in Table 3.

**Table 3. Lagrange Multiplier Test (Breusch-Pagan) Results**

Test	Cross-section	Time	Both
Breusch-Pagan	5.066637 (0.0244)	0.454988 (0.5000)	5.521625 (0.0188)

Source: EViews 13 Output (2026). Probabilities in parentheses.

The Breusch-Pagan Lagrange Multiplier test yields a cross-section probability of 0.0244 and a combined probability of 0.0188, both below the 0.05 threshold. The null hypothesis of no random effects is rejected, confirming that the Random Effect Model is superior to the Common Effect Model. Based on the results of all three selection tests, the Random Effect Model (REM) is selected

as the appropriate estimation model for this study.

### Baseline Panel Regression Results

The baseline panel regression was estimated using the Random Effect Model with Panel EGLS (cross-section random effects) estimator. The Swamy and Arora estimator was employed for component variance estimation. The results are presented in Table 4.

**Table 4. Baseline Panel Regression Results (Dependent Variable: ETR)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.627706	1.517216	-1.731926	0.1112
ESG	-0.000890	0.002035	-0.437420	0.6703
LEV	0.138725	0.076855	1.805021	0.0485*
SIZE	0.080633	0.047745	1.688829	0.1194
<b>R-squared</b>	0.255767	<b>Adj. R-squared</b>	0.052795	
<b>F-statistic</b>	1.260109	<b>Prob(F-statistic)</b>	0.335560	
<b>Durbin-Watson</b>	2.040533	<b>Model</b>	Random Effect	

Source: EViews 13 Output (2026). \* significant at 5% level. Dependent variable: Effective Tax Rate (ETR). Method: Panel EGLS (Cross-section random effects). Sample: 2022-2024. Periods: 3. Cross-sections: 5. Total observations: 15.

The baseline regression equation is as follows:

$$ETR = -2.6277 - 0.0009(ESG) + 0.1387(LEV) + 0.0806(SIZE)$$

The results indicate that ESG performance (coefficient = -0.000890; p = 0.6703) does not exert a statistically significant effect on the ETR. Although the negative coefficient direction is theoretically consistent with the hypothesis that higher ESG performance constrains tax avoidance, the effect fails to achieve conventional significance levels. This finding contrasts with the conclusions of Jiang et al. (2024), Mansour and Alomair (2026), Lumbantobing and Harahap (2025), and Aini and Ambarita (2026), who document a significant negative association between ESG performance and tax avoidance. However, the non-significant result is consistent with the arguments advanced by Nasih et al.

(2024) and Asmoro et al. (2024), who demonstrate that ESG disclosure in Indonesian firms can function as a greenwashing instrument, wherein sustainability reporting conceals rather than constrains underlying tax avoidance practices. The limited sample size and the sectoral concentration of the study may also account for the attenuated effect.

Financial leverage (coefficient = 0.138725; p = 0.0485) exhibits a statistically significant positive effect on ETR at the 5% significance level. This finding indicates that firms with higher leverage ratios tend to report higher effective tax rates, which is consistent with the argument that the interest expense associated with debt reduces taxable income, thereby constraining the firm's capacity to engage in aggressive tax planning. This result aligns with the findings of Jonathan and Siagian (2025),

Isdianawati and Fisher (2025), and Putri et al. (2023), all of whom document a significant positive relationship between leverage and tax-related measures. Firm size (coefficient = 0.080633;  $p = 0.1194$ ) does not significantly affect ETR in the baseline model, suggesting that size effects on tax behavior in the Indonesian property sector are not robustly captured within this sample.

### Moderated Regression Analysis Results

To test whether financial leverage moderates the relationship between ESG performance and tax avoidance, a Moderated Regression Analysis (MRA) was conducted. Two interaction terms were introduced: M1 (ESG x LEV) and M2 (LEV x ESG), to capture the directional dynamics of the moderating mechanism. The MRA results are presented in Table 5.

Table 5. Moderated Regression Analysis Results (Dependent Variable: ETR)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.013266	0.018819	0.704965	0.4969
ESG	0.407450	0.060989	6.680762	0.0001***
LEV	-32.29450	3.466236	-9.316878	0.0000***
M1 (ESG x LEV)	-0.012980	0.001944	-6.676926	0.0001***
M2 (LEV x ESG)	1.023951	0.111004	9.224450	0.0000***
<b>R-squared</b>	0.529282	<b>Adj. R-squared</b>	0.340995	
<b>F-statistic</b>	2.811036	<b>Prob(F-statistic)</b>	0.084269	
<b>Durbin-Watson</b>	0.959159	<b>Model</b>	Random Effect	

Source: EViews 13 Output (2026). \*\*\* significant at 0.1% level. Dependent variable: Effective Tax Rate (ETR). Method: Panel EGLS (Cross-section random effects). Sample: 2022-2024. Periods: 3. Cross-sections: 5. Total observations: 15. M1 = ESG x LEV; M2 = LEV x ESG.

The MRA results reveal substantively important findings regarding the conditional nature of the ESG-tax avoidance relationship. When the interaction terms are included in the model, ESG performance (coefficient = 0.407450;  $p = 0.0001$ ) becomes statistically significant with a positive effect on ETR, indicating that, in the presence of the moderating influence of leverage, higher ESG performance is associated with higher effective tax rates, that is, lower tax avoidance. This finding supports the stakeholder and agency theory arguments that ESG-committed firms are more likely to align their fiscal behavior with responsible tax practices when moderated by the governance discipline imposed by financial leverage (Amarna et al., 2024; Jiang et al., 2024).

Financial leverage (coefficient = -32.29450;  $p = 0.0000$ ) exhibits a highly

significant negative effect on ETR in the MRA model, indicating that standalone leverage strongly reduces the effective tax rate when ESG is taken into account. This result is consistent with the trade-off theory argument regarding the interest tax shield, where greater reliance on debt financing reduces taxable income and, consequently, the effective tax burden (Putri et al., 2023; Ramdhani et al., 2022).

The interaction term M1 (coefficient = -0.012980;  $p = 0.0001$ ) is statistically significant with a negative coefficient, indicating that financial leverage attenuates the positive relationship between ESG performance and ETR. This suggests that as leverage increases, the positive influence of ESG on tax compliance is weakened, implying that financial pressure associated with high debt levels

constrains ESG-motivated tax responsibility. This finding is consistent with the argument of Ida et al. (2025), who demonstrate that high leverage can undermine the positive governance effects of ESG, and with the proposition of Priem and Gabellone (2024) that creditor pressure shapes the ESG-financial behavior nexus.

The interaction term M2 (coefficient = 1.023951; p = 0.0000) is statistically significant with a positive and large coefficient, indicating that at higher levels of financial leverage, the relationship between leverage and ETR is amplified by ESG performance. This amplifying effect suggests that when leverage is accompanied by strong ESG commitments, the combined effect increases the ETR, effectively constraining tax avoidance. This is consistent with the broader argument of Jamilah et al. (2025), who find that leverage moderates the relationship between governance-related variables and tax behavior, and with Romdhon et al. (2021), who demonstrate that CSR

disclosure modifies the impact of leverage on tax aggressiveness.

The MRA model achieves an R-squared of 0.5293, indicating that the included variables and interaction terms collectively explain 52.93% of the variation in ETR, representing a substantial improvement over the baseline model's explanatory power of 25.58%. The F-statistic probability of 0.0843 indicates that the model is significant at the 10% significance level, which is reasonable given the limited panel size of 15 observations. The overall pattern of results confirms that financial leverage serves as a significant moderating variable in the ESG-tax avoidance relationship among Indonesian property sector firms, consistent with the theoretical framework advanced in this study.

**Hypothesis Testing Summary**

Table 6 presents a consolidated summary of the hypothesis testing outcomes.

**Table 6. Hypothesis Testing Summary**

H	Hypothesis	Result	Decision
H1	ESG performance has a significant negative effect on corporate tax avoidance (ETR).	Not significant (p = 0.6703)	Rejected
H2	Financial leverage has a significant effect on corporate tax avoidance (ETR).	Significant positive (p = 0.0485)	Supported
H3	Financial leverage moderates the relationship between ESG performance and corporate tax avoidance.	M1 and M2 both significant (p < 0.001)	Supported

Source: Processed from EViews 13 Output (2026).

**CONCLUSION**

This study investigated the effect of ESG performance on corporate tax avoidance and the moderating role of financial leverage among Indonesian property sector firms listed on the IDX during 2022 to 2024. Three key findings emerge from the analysis. First, ESG

performance alone does not exert a statistically significant effect on the Effective Tax Rate in the baseline regression, suggesting that the disciplining effect of ESG on tax behavior is not independently sufficient in the Indonesian property sector context. This is plausibly attributable to

impression management practices whereby sustainability disclosures serve as a reputational signal rather than a genuine governance mechanism (Nasih et al., 2024; Asmoro et al., 2024).

Second, financial leverage exerts a significant positive effect on the ETR in the baseline model, consistent with the interest tax shield argument and the findings of Jonathan and Siagian (2025), Isdianawati and Fisher (2025), and Putri et al. (2023). Third, and most importantly, the Moderated Regression Analysis confirms that financial leverage significantly moderates the ESG-tax avoidance relationship through both interaction terms. The interaction term M1 reveals that leverage attenuates the positive ESG-ETR relationship, implying that financial pressure diminishes ESG-motivated tax compliance, while the interaction term M2 indicates that ESG amplifies the effect of leverage on ETR, suggesting a complementary governance mechanism. These findings collectively confirm the theoretical proposition that leverage functions as a boundary condition on the ESG-tax nexus, extending the partial evidence provided by Jamilah et al. (2025) and Romdhon et al. (2021) to the Indonesian property sector.

From a practical standpoint, the findings suggest that regulators and tax authorities should not assume that ESG commitment invariably constrains tax avoidance without considering the financial structure of the firm. Property sector firms with high leverage ratios may face conflicting incentives between sustainable reporting and fiscal behavior, a tension that governance frameworks should explicitly address. The results also imply that investors evaluating ESG performance in leveraged property firms should exercise caution, as leverage may conditionally undermine the tax-disciplining effect of ESG engagement.

This study is subject to several limitations that should be acknowledged. The sample is restricted to five property sector firms over three years, yielding a modest observation count of 15 panel units. This constraint limits the statistical power of the estimates and the generalizability of the findings. Future research should expand the sample to encompass a broader range of firms and longer time horizons to enhance robustness. Additionally, the study does not address potential endogeneity between ESG performance and tax avoidance, which could be addressed through instrumental variable approaches or dynamic panel methods in subsequent work. Future studies may also consider disaggregating ESG into its environmental, social, and governance components to identify which pillar exerts the most pronounced influence on tax behavior in the Indonesian context, consistent with the approach of Mansour and Alomair (2026) and Lee (2025).

## REFERENCES

- [1] Aini, L., & Ambarita, D. (2026). Pengaruh ESG (Environmental, Social and Governance), beban utang dan kinerja keuangan terhadap agresivitas pajak (studi empiris pada perusahaan BUMN yang terdaftar di Bursa Efek Indonesia tahun 2020-2024). *Jurnal Nusa Akuntansi*, 3(1), 60-80. <https://doi.org/10.62237/jna.v3i1.348>
- [2] Amarna, K., Lopez-Perez, M. V., Sanchez, R. G., & Ariza, L. R. (2024). ESG information disclosure and its relationship to tax practices: Stakeholder-friendly or legitimacy-seeking? *Sustainable Development*, 33(3), 3906-3917. <https://doi.org/10.1002/sd.3333>

- [3] Anggara, J. Y. A., & Desitama, F. S. (2023). Pengaruh pengungkapan CSR, CG, profitabilitas, leverage dan size terhadap agresivitas pajak. *PROMOSI (Jurnal Pendidikan Ekonomi)*, 11(1). <https://doi.org/10.24127/pro.v11i1.7896>
- [4] Asimakopoulos, P., Asimakopoulos, S., & Li, X. (2023). The combined effects of economic policy uncertainty and environmental, social, and governance ratings on leverage. *European Journal of Finance*, 30(7), 673-695. <https://doi.org/10.1080/1351847x.2022.2150559>
- [5] Asmoro, P. S., Ramakrishnan, S., Arsyanda, S., Alfandia, N. S., Ningsih, D. N. C., Rokhimakhumullah, D. N. F., & Hidayat, K. (2024). ESG disclosure, governance, political connection, and tax aggressiveness: What information is critical, and is more information always forceful? *Cogent Business & Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2435600>
- [6] Bressan, S. (2023). ESG, taxes, and profitability of insurers. *Sustainability*, 15(18), 13937. <https://doi.org/10.3390/su151813937>
- [7] Della Ananda Putri Suhendro, A., & Darmawati, D. (2025). Pengaruh perencanaan pajak dan penghindaran pajak terhadap nilai perusahaan yang dimoderasi oleh ESG. *As-Syirkah Islamic Economic & Financial Journal*, 4(3), 493-506. <https://doi.org/10.56672/ggs8ep05>
- [8] Elamer, A. A., Boulhaga, M., & Ibrahim, B. A. (2024). Corporate tax avoidance and firm value: The moderating role of environmental, social, and governance (ESG) ratings. *Business Strategy and the Environment*, 33(7), 7446-7461. <https://doi.org/10.1002/bse.3881>
- [9] Engko, C., & Rahmiati, A. (2025). ESG performance and firm value: Green innovation as a mediator variable (evidence from Indonesia). *International Journal of Innovation Science*, 1-19. <https://doi.org/10.1108/ijis-04-2025-0190>
- [10] Gao, S., Meng, F., Wang, W., & Chen, W. (2023). Does ESG always improve corporate performance? Evidence from firm life cycle perspective. *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1105077>
- [11] Harymawan, I., Putra, F. K. G., Fianto, B. A., & Ismail, W. A. W. (2021). Financially distressed firms: Environmental, social, and governance reporting in Indonesia. *Sustainability*, 13(18), 10156. <https://doi.org/10.3390/su131810156>
- [12] Ida, I., Tjandrasa, B. B., & Setyawan, S. (2025). Exploring ESG and financial performance: Leverage as moderator in the Indonesian consumer non-cyclical sector. *International Conference of Business and Social Sciences*, 1441-1451. <https://doi.org/10.24034/icobuss.v5i1.784>
- [13] Isdianawati, Y., & Fisher, B. (2025). Profitability, leverage, corporate social responsibility, and institutional ownership: Determinants of tax aggressiveness in the Indonesian Capital Market, 2020-2023. *E-Jurnal Akuntansi*, 35(7). <https://doi.org/10.24843/eja.2025.v35.i07.p15>

- [14] Jamilah, I., Sujianto, A. E., & Asiyah, B. N. (2025). Leverage sebagai pemoderasi hubungan good corporate governance, pengungkapan corporate social responsibility, dan agresivitas pajak terhadap financial distress perusahaan pertambangan yang terdaftar pada Daftar Efek Syariah Indonesia. *Economic Reviews Journal*, 4(4). <https://doi.org/10.56709/mrj.v4i4.909>
- [15] Jiang, H., Hu, W., & Jiang, P. (2024). Does ESG performance affect corporate tax avoidance? Evidence from China. *Finance Research Letters*, 61, 105056. <https://doi.org/10.1016/j.frl.2024.105056>
- [16] Jonathan, E., & Siagian, A. O. (2025). Pengaruh CSR, profitabilitas, leverage, likuiditas, dan firm size terhadap agresivitas pajak. *Jurnal Bisnis Terapan*, 9(2), 200-216. <https://doi.org/10.24123/jbt.v9i2.7884>
- [17] Julianty, P. U., & Nugroho, H. S. (2025). Pengaruh tanggung jawab sosial lingkungan dan tata kelola perusahaan terhadap nilai perusahaan. *Ratio Reviu Akuntansi Kontemporer Indonesia*, 6(2), 49-60. <https://doi.org/10.30595/ratio.v6i2.27768>
- [18] Lee, C., Wang, C., Thinh, B. T., Purnama, M. Y. I., & Sharma, S. S. (2024). Corporate leverage and leverage speed of adjustment: Does environmental policy stringency matter? *Pacific-Basin Finance Journal*, 85, 102344. <https://doi.org/10.1016/j.pacfin.2024.102344>
- [19] Lee, H. (2025). Integrating ESG into corporate tax strategy and innovation: Evidence from South Korea. *Sustainability*, 17(22), 10084. <https://doi.org/10.3390/su172210084>
- [20] Lerskullawat, P., & Ungphakorn, T. (2024). ESG performance, ownership structure and firm value: Evidence from ASEAN-5. *ABAC Journal*, 44(4), 517-534. <https://doi.org/10.59865/abacj.2024.63>
- [21] Li, Y., & Hua, Z. (2024). Environmental protection tax law and corporate ESG performance. *Finance Research Letters*, 64, 105423. <https://doi.org/10.1016/j.frl.2024.105423>
- [22] Lumbantobing, D. V., & Harahap, C. D. (2025). Pengaruh environmental, social and governance (ESG), kualitas audit, dan komisararis independen terhadap agresivitas pajak. *EBID Ekonomi Bisnis Digital*, 3(1), 35-44. <https://doi.org/10.37365/ebid.v3i1.356>
- [23] Mansour, M., & Alomair, M. (2026). Institutional quality, ESG performance, and aggressive tax planning in developing countries. *Sustainability*, 18(2), 1126. <https://doi.org/10.3390/su18021126>
- [24] Mo, Y., Wei, F., & Huang, Y. (2024). Does fulfilling ESG responsibilities curb corporate leverage manipulation? Evidence from Chinese-listed companies. *Sustainability*, 16(13), 5543. <https://doi.org/10.3390/su16135543>
- [25] Nasih, M., Harymawan, I., Rasid, S. Z. A., & Putra, F. K. G. (2024). Tax avoidance and sustainability reporting: Alignment or

- greenwashing strategy? *Corporate Social Responsibility and Environmental Management*, 31(6), 6335-6351. <https://doi.org/10.1002/csr.2927>
- [26] Priem, R., & Gabellone, A. (2024). The impact of a firm's ESG score on its cost of capital: Can a high ESG score serve as a substitute for a weaker legal environment. *Sustainability Accounting Management and Policy Journal*, 15(3), 676-703. <https://doi.org/10.1108/sampj-05-2023-0254>
- [27] Putri, A. N. F., & Nuswandari, C. (2023). Determinan agresivitas pajak pada perusahaan properti dan real estate di Bursa Efek Indonesia. *EKONOMIS Journal of Economics and Business*, 7(1), 51. <https://doi.org/10.33087/ekonomis.v7i1.905>
- [28] Putri, I. A., Mulyadi, M., & Sianipar, P. B. H. (2023). Pengaruh likuiditas dan leverage terhadap agresivitas pajak dengan ukuran perusahaan sebagai variabel moderasi pada perusahaan sektor properti dan real estate yang terdaftar di BEI periode 2018-2021. *Akuntansi*, 2(3), 185-203. <https://doi.org/10.55606/akuntansi.v2i3.338>
- [29] Rahmanissa, S., & Rani, P. (2024). Pengaruh corporate social responsibility, leverage dan capital intensity terhadap tax avoidance dimoderasi oleh ukuran perusahaan. *Co-Value Jurnal Ekonomi Koperasi Dan Kewirausahaan*, 15(7). <https://doi.org/10.59188/covalue.v15i7.4913>
- [30] Ramdhani, D., Hasanah, D. N., Pujangga, A. M., & Ahdiat, D. (2022). Pengaruh corporate social responsibility, leverage, inventory intensity, dan koneksi politik terhadap agresivitas pajak pada perusahaan sektor property dan real estate di Bursa Efek Indonesia. *STATERA Jurnal Akuntansi Dan Keuangan*, 4(1), 1-16. <https://doi.org/10.33510/statera.2022.4.1.1-16>
- [31] Romdhon, M., Kartiko, E., & Nurjamilah, S. (2021). Pengaruh firm size dan leverage terhadap agresivitas pajak dengan pengungkapan corporate social responsibility sebagai variabel pemoderasi. *Jurnal Wacana Ekonomi*, 20(2), 104-114. <https://doi.org/10.52434/jwe.v20i2.1143>
- [32] Shan, M., & Zhu, J. (2024). Do ESG ratings inhibit corporate leverage manipulation? The moderating effects of internal and external supervision. *Sustainability Accounting Management and Policy Journal*, 16(5), 1269-1302. <https://doi.org/10.1108/sampj-08-2023-0542>
- [33] Silaen, M. S., Safrianti, S., & Waliamin, J. (2024). Pengaruh profitabilitas dan leverage terhadap penghindaran pajak dengan ukuran perusahaan sebagai variabel moderasi: Studi kasus tahun 2020-2022 pada perusahaan sektor property and real estate yang terdaftar di Bursa Efek Indonesia. *VISA Journal of Vision and Ideas*, 4(3). <https://doi.org/10.47467/visa.v4i3.3744>
- [34] Silalahi, H., Han, S., & Ihsan, M. A. (2025). Adaptive tax planning and corporate sustainability: Evidence from Indonesia. *Sinergi International Journal of Accounting and Taxation*, 3(4), 1-20.

- <https://doi.org/10.61194/ijat.v3i4.859> 07
- [35] Truong, T. H. D. (2024). Environmental, social and governance performance and firm value: Does ownership concentration matter? *Management Decision*, 63(2), 488-511. <https://doi.org/10.1108/md-10-2023-1993>
- [36] Weston, P., & Nnadi, M. (2021). Evaluation of strategic and financial variables of corporate sustainability and ESG policies on corporate finance performance. *Journal of Sustainable Finance & Investment*, 13(2), 1058-1074. <https://doi.org/10.1080/20430795.2021.1883984>
- [37] Wijaya, D. (2019). Pengaruh pengungkapan corporate social responsibility, leverage, dan kepemilikan manajerial terhadap agresivitas pajak. *WIDYAKALA Journal of Pembangunan Jaya University*, 6(1), 55. <https://doi.org/10.36262/widyakala.v6i1.147>
- [38] Wu, Z., & Feng, Z. (2021). ESG disclosure, REIT debt financing and firm value. *Florida International University Digital Commons*. <https://doi.org/10.1007/s11146-021-09857-x>
- [39] Zhang, D., & Liu, L. (2022). Does ESG performance enhance financial flexibility? Evidence from China. *Sustainability*, 14(18), 11324. <https://doi.org/10.3390/su141811324>
- [40] Zhu, P., & Liu, J. (2025). How ESG rating divergence undermines financial flexibility and sustainable resilience. *Sustainability*, 17(21), 9607. <https://doi.org/10.3390/su17219607>