TAX AVOIDANCE IN REAL ESTATE: IMPACT OF CORPORATE GOVERNANCE, LEVERAGE, AND INSTITUTIONAL OWNERSHIP WITH BOARD GENDER DIVERSITY AS MODERATING VARIABLE

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Abstract

This study investigates the influence of corporate governance, leverage, and institutional ownership on tax avoidance, with board gender diversity serving as a moderating variable, in property and real estate companies listed on the Indonesia Stock Exchange from 2015 to 2024. Based on 144 observations from 18 purposively selected firms, tax avoidance was measured using the Effective Tax Rate (ETR), corporate governance, leverage, institutional ownership and gender diversity by the percentage of female directors. Data were analyzed using multiple linear regression and Moderated Regression Analysis (MRA) in SPSS 26. The findings indicate that corporate governance and leverage does not have a significant effect on tax avoidance, while institutional ownership and board gender diversity have significantly on tax avoidance. Board gender diversity moderates the relationship between institutional ownership and corporate governance on tax avoidance but does not moderate the effects of leverage.

Keywords: Board Gender Diversity, Corporate Governance, Leverage, Institutional Ownership, Tax Avoidance.

Classification:
Empirical Paper

History:
Submitted:
November 24, 2025

Revised:
December 15, 2025

Accepted:
December 23, 2025

Maharani, K.D., Pandansari, T., Kusbandiyah, A., & Azizah, S.N. (2025). Tax Avoidance in Real Estate: Impact of Corporate Governance, Leverage and Institutional Ownership with Board Gender Diversity as Moderating Variable. SAR (Soedirman Accounting Review): Journal of Accounting and Business. 10(2): 125-142.

INTRODUCTION

Tax avoidance has become a global issue that is widely discussed in various countries around the world. Every year it is estimated that there are state losses of around Rp 69 trillion due to tax avoidance schemes in Indonesia (Putra & Rahayu, 2023). *Tax Justice Network (2020)* noted that Indonesia lost potential tax revenue of US$ 4.86 billion per year, equivalent to Rp68.7 trillion, due to tax avoidance practices. If converted into rupiah, that amount is comparable to Rp 68.7 trillion at the time the report was published. In the latest report, it was revealed that $78.83 million (around IDR 1.1 trillion) was the result of tax avoidance sourced from individual taxpayers and $4.78 billion or equivalent to IDR 67.6 trillion was the result of tax avoidance carried out by corporate taxpayers in Indonesia (Cobham et al., 2020).

The scale of these losses underscores the importance of effective proxies for measuring corporate tax avoidance levels. The Effective Tax Rate (ETR), calculated as tax expense divided by pretax income, serves as a common parameter of tax avoidance, with lower ETRs suggesting further aggressive tax planning (Flagmeier et al., 2023; Khan & Nuryanah, 2023; Organisation for Economic Co-operation and Development, 2023).

The property and real estate sector has drawn particular attention, as it recorded the lowest ETR between 2016–2020 compared to other sectors (Awaliah et al., 2022). Case studies of PT Bumi Serpong Damai Tbk (2016) and PT Metropolitan Land Tbk (2017–2020) further demonstrate consistently low ETRs, signaling intensive tax avoidance practices. Alleged tax reporting manipulation by PT Bhakti Agung Propertindo Tbk (2018–2019), which caused state losses of IDR 2.9 billion (Manurung, 2020), underscores the sector's vulnerability. High asset values, complex ownership structures, and heavy debt financing create conditions conducive to tax avoidance, reinforcing the need for closer examination of this industry.

The government argues that sound corporate governance enhances tax compliance (Hani & Fitria, 2020). Governance mechanisms such as independent boards, audit committees, and transparent ownership help improve accountability and reduce aggressive tax behavior (Syafa'at & Dinarjito, 2025). Prior studies from Abdul Rahman et al., (2023), Suryatna (2023), and Wulandari et al., (2024) found that corporate governance effectively curbs tax avoidance, while others from Handoyo et al., (2022), Liyundira et al., (2023), and Reswita et al., (2024) reported no significant effect. These inconsistencies likely stem from differences in sectoral characteristics, company size, capital intensity, and ownership structure, indicating the need for further research in the property industry context.

Another avenue for tax avoidance is leverage. High debt levels allow companies to deduct interest expenses, thereby lowering taxable income and reducing their effective tax burden (Haryanti, 2021; Linda et al., 2023). Leverage affects tax avoidance, where companies with high debt levels benefit from tax incentives through reduced interest costs which ultimately reduce taxable income. This relationship affects the Effective Tax Rate (ETR) which reflects the tendency of tax avoidance practices avoidance (Cindy & Ginting, 2022; Pristanti & Harimurti, 2020; Yuniarwati, 2021).

However, findings related to the influence of leverage on tax avoidance still show mixed results. Research by Widyastuti et al. (2022) found a positive influence, showing that companies with high leverage tend to do tax avoidance. In contrast, Karlina & Wirajaya (2024), Prastya & Merkusiwati (2024), Putri et al. (2022), Wuriti & Noviari (2023) found a negative influence, as companies with high debts tend to avoid additional risks due to pressure from creditors. This difference in results can be influenced by variations in funding structures, financial conditions, or differences in industry sectors that give rise to different leverage dynamics in relation to tax avoidance. On the basis of these differences in results, there is a relevant research gap to be further researched in the context of the property and real estate industry in Indonesia.

Beyond internal factors like corporate governance and leverage, external oversight particularly institutional ownership also influences tax avoidance. Institutional ownership refers to shareholding by entities such as banks, insurance companies, and pension funds that prioritize transparency and good governance due to their reputational and financial interests (Listianti & Rudi, 2024). Their involvement helps restrain managerial opportunism and high-risk tax practices (Velte, 2023). Studies by Eka Safitri & Atwal Arifin (2023), Listianti & Rudi (2024), Sholikhah & Nurdin (2022), and Suryatna (2023) found institutional ownership significantly affects tax avoidance, while others Ningrum et al., (2020), Reswita et al., (2024), and Yuniarwati (2021) reported no such effect, likely due to variations in ownership proportion, monitoring strength, and industry context.

Another emerging governance factor is gender diversity on corporate boards. The property and real estate sector is historically characterized as a male-dominated industry with a culture that often correlates with aggressive risk taking (Ayodele, 2025; Ernst and Young, 2016; Network, 2020). Therefore, the presence of female directors becomes a critical element to examine. Recent research on U.S. Real Estate Investment Trusts (REITs) explicitly found that gender-diverse leadership is associated with significant risk reduction and more sustainable, lower risk investment strategies (Devine et al., 2023). This suggest that female directors bring a prudent perspective that may also apply to tax reporting decisions.

In addition to variables that directly affect tax avoidance such as leverage, institutional ownership, and governance mechanisms, female directors are often more attentive to ethical and social implications, thus potentially reducing aggressive tax behavior (Sofyawati & Rohman, 2024). Gender diversity may moderate other relationship between corporate structure and tax strategies by strengthening oversight and ethical conduct. However, prior findings remain inconsistent, Oktivina et al. (2020) found that gender diversity only moderates the effect of leverage, not institutional ownership, on tax avoidance. This inconsistency highlights the need for further study, particularly within the property sector.

This research has a goal to identify and look at how corporate governance, leverage, and institutional ownership influence tax avoidance among property and real estate firms listed on the Indonesia Stock Exchange during 2015–2024, with board gender diversity as a moderating factor. Given the sector's susceptibility to tax avoidance, the study contributes theoretically by expanding literature on tax determinants and practically by offering insights for improving compliance strategies and guiding policy formulation in the property sector.

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

Agency Theory

Agency Theory by (Jensen & Meckling, 1976) explains conflicts between owners (principals) and managers (agents) arising from differing interests, where managers may engage in tax avoidance to maximize profits. (Ma'sum et al., 2023) found that such conflicts drive managers to conceal tax avoidance through strategic language in reports, highlighting the need for strong governance oversight. Therefore, this theory underpins the analysis of how corporate governance, institutional ownership, and board gender diversity help mitigate agency conflicts in tax avoidance within the property and real estate sectors.

Tax Avoidance

Tax avoidance is a legal strategy to reduce tax burdens by exploiting regulatory gaps, commonly measured by the Effective Tax Rate (ETR) the ratio of tax expense to pre-tax (Leorinita & Dosinta, 2023; Nurcahyani & Rahmawati, 2024). From an agency theory perspective, it reflects managerial opportunism to boost post-tax profits (Ma'sum et al., 2023). The property and real estate sector shows consistently low ETRs, indicating high tax avoidance (Awaliah et al., 2022). Hence, this study uses ETR to measure tax avoidance intensity in property and real estate firms listed on the Indonesia Stock Exchange from 2015–2024.

Corporate Governance

Corporate Governance (CG) refers to a company's oversight system designed to minimize conflicts between shareholders and management, as outlined in Agency Theory (Jensen & Meckling, 1976). This study employs the Corporate Governance Index (CG Index), based on OECD (2023) principles transparency, accountability, responsibility, independence, and fairness comprising 20 indicators (Solikhah & Maulina, 2021). Prior research by Choi & Park (2022), Itan et al. (2024), Lv et al. (2025), and Salehi et al. (2024) consistently found that effective governance, particularly through independent boards and audit committees, reduces tax avoidance, stabilizes ETRs, and mitigates its negative impact on firm value. Hence, strong governance enhances transparency and control, limiting managerial manipulation in tax practices, especially within the property and real estate sector.

H1: Corporate Governance has a negative effect on Tax Avoidance

Leverage

Leverage reflects which a company finances its assets through debt. While debt offers tax advantages via interest deductions, excessive leverage can discourage tax avoidance due to creditor oversight demanding transparency and financial stability. According to agency theory, creditors act as external monitors that restrict managerial discretion over aggressive tax strategies (Bulawan et al., 2023).

Empirical studies generally show a negative relativity within leverage and tax avoidance. In Indonesia, firms with higher debt levels tend to engage less in tax avoidance (Karlina & Wirajaya, 2024; Prastya & Merkusiwati, 2024; Putri et al., 2022; Wuriti & Noviari, 2023). Similar results appear internationally, Kwon (2025) in Korea, Ha et al. (2021) in Vietnam, and Shubita (2024) in Jordan all found leverage to suppress tax avoidance, while Hendayana et al. (2024) confirmed this effect using the debt-to-assets ratio. Collectively, these findings indicate that leverage negatively influences tax avoidance across different contexts.

H2: Leverage has a negative effect on Tax Avoidance

Institutional Ownership

Institutional ownership helps reduce agency conflicts by strengthening oversight of managerial behavior. In Agency Theory, institutional investors act as principals who ensure managers align with shareholder interests, fostering transparency and accountability (Listianti & Rudi, 2024; Yuniarwati, 2021).

However, the literature also acknowledges an opposing perspective known as the "Sophisticated Principal Hypothesis." This view aligns with the arguments of Bushee (1998), who suggested that institutional investors often exhibit "myopic" behavior, focusing on short-term earnings. Consequently, these sophisticated principals may leverage their ownership power to pressure management into aggressive tax planning strategies to maximize immediate returns.

Although findings vary Ningrum et al. (2020), Reswita et al. (2024), and Yuniarwati (2021), most studies show a negative relationship between institutional ownership and tax avoidance (Athira & Lukose, 2023; Dakhli, 2022). Thus, higher institutional ownership enhances accountability and discourages aggressive tax practices.

H3: Institutional Ownership has a negative effect on Tax Avoidance

The Role of Gender Diversity Board Moderation in Corporate Governance

In Agency Theory, female representation on boards enhances oversight effectiveness, as women are generally more cautious about legal, social, and ethical risks, thereby reducing tax avoidance (Sofyawati & Rohman, 2024). A meta-analysis by Eva Budiana & Kusuma (2022) found that greater female board presence correlates with lower tax aggressiveness among Southeast Asian firms. However, Laurensia et al. (2024) reported that gender diversity did not significantly provide the links among corporate governance and tax avoidance in the consumer goods sector, suggesting the need for further research in other industries such as property and real estate.

H4: Board Gender Diversity can moderate the relationship between Corporate Governance and Tax Avoidance

The Role of Gender Diversity Board Moderation on Leverage

Within Agency Theory, leverage reflects managerial decisions in using debt, which may diverge from owners' interests (Bulawan et al., 2023). Female board members enhance oversight by emphasizing legal and ethical caution (Sofyawati & Rohman, 2024). Consequently, board gender diversity (BGD) can mitigate the impact of leverage on tax avoidance by balancing efficiency with compliance. Oktivina et al. (2020) found that BGD significantly moderates the leverage–tax avoidance relationship, underscoring its role in aligning debt management with responsible tax practices.

H5: Board Gender Diversity can moderate the influence of Leverage on Tax Avoidance

The Role of Board Gender Diversity Moderation in Institutional Ownership

Jensen & Meckling (1976) state that institutional ownership serves as a governance mechanism that enhances managerial oversight through continuous evaluation of management decisions (Pontoh & Kustinah, 2024). Meanwhile, gender-diverse boards promote stronger ethical accountability, as women are typically more cautious about legal and social risks (Eva Budiana & Kusuma, 2022) Although some studies that directly examine board gender diversity (BGD) as a medium between institutional ownership and tax avoidance remain scarce, evidence provides an argument that BGD can strengthen institution monitoring in influencing tax behavior. Pontoh & Kustinah (2024) also found that the presence of both BGD and institutional ownership reduces tax avoidance, supporting the need to further test this moderating relationship.

H6: Board Gender Diversity can moderate the influence of Institutional Ownership on Tax Avoidance

Visually, this conceptual model can be described as follows:

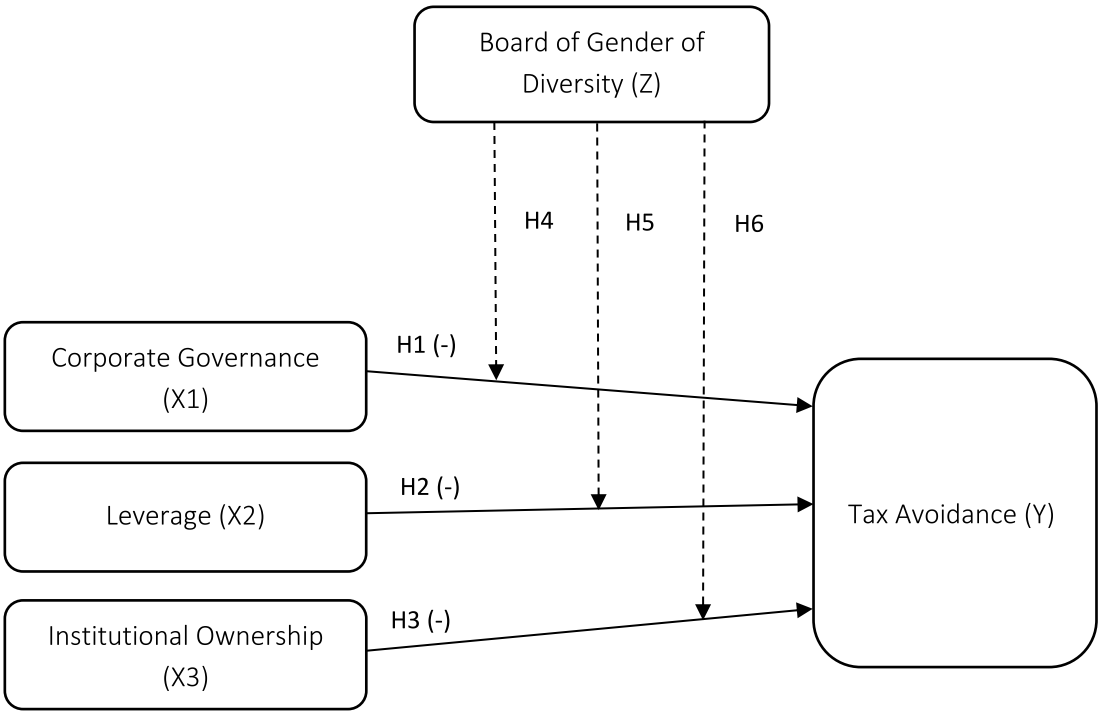

Figure 1. Conceptual Framework
Source: Data processed by the author

RESEARCH METHOD

This study employs secondary quantitative data from 18 property and real estate companies listed on the Indonesia Stock Exchange (IDX) during 2015–2024 of 170 initial observations, 144 were retained after removing outliers and incomplete cases. Data were collected through non-participant observation using purposive sampling based on specific criteria, with annual reports obtained from the IDX and company websites.

Table 1. Company Sample List

No.	Stock Code	Company Name
1.	APLN	Agung Podomoro Land Tbk.
2.	BEAUTIFUL	Alam Sutera Realty Tbk.
3.	BEST	Bekasi Fajar Industrial Estate
4.	BKSL	Sentul City Tbk.
5.	BSDE	Bumi Serpong Damai Tbk.
6.	CTRA	Ciputra Development Tbk.

7.	DILD	Intiland Development Tbk.
8.	DMAS	Puradelta Lestari Tbk.
9.	KIJA	Jababeka Industrial Estate Tbk.
10.	LPCK	Lippo Cikarang Tbk.
11.	LPKR	Lippo Karawaci Tbk.
12.	MDLN	Moderland Realty Tbk.
13.	MMLP	Mega Manunggal Property Tbk.
14.	MTLA	Metropolitan Land Tbk.
15.	PUDP	Pudjiadi Prestige Tbk.
16.	**PWON**	**Pakuwon Jati Tbk.**
17.	SMRA	Summarecon Agung Tbk.
18.	CBDK	Bangun Kosambi Sukses Tbk.

This study uses Corporate Governance, Leverage, and Institutional Ownership as independent variables, with Tax Avoidance (measured by the Effective Tax Rate/ETR) as the dependent variable and Board Gender Diversity as the moderating variable. Profitability and Company Size serve as control variables to account for external factors. Tools such as SPSS 26 are used to count data through a number of linear regression to examine effects and interaction among variables. This method was chosen for its suitability in handling moderate sample sizes and its ability to perform classical assumption and interaction tests efficiently. The data is calculated with the following calculation indicators:

Tax Avoidance
According to Awaliah et al. (2022), Tax Avoidance could be calculated using this formula:

$$ETR = \frac{\text{Total Tax Expense}}{\text{Taxable Income}} \quad (1)$$

Corporate Governance
According to Itan et al. (2024), OECD (2023), Solikhah and Maulina (2021), Corporate Governance could be calculated using this formula:

$$CG = \frac{\text{Number of Items Disclosed}}{\text{Total Indicators}} \quad (2)$$

Leverage
According to Widyastuti, Meutia, and Candrakanta (2022), Leverage could be calculated using this formula:

$$LV = \frac{\text{Total Liabilities}}{\text{Total Assets}} \quad (3)$$

Institutional Ownership
According to Suryatna (2023), Institutional Ownership could be calculated using this formula:

$$IO = \frac{\text{The Number of Shares Owned by Institution}}{\text{Number of Shares Outstanding}} \quad (4)$$

Board Gender Diversity
According to Sambuaga and Felicia (2024), Board Gender Diversity could be calculated using this formula:

$$BGD = \frac{\text{Number of Female Board Members}}{\text{Total Members of the Board of Directors}} \quad (5)$$

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis was conducted to provide an overview of the characteristics of the research data from 144 valid observations. The results of the analysis, as presented as follows:

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Tax Avoidance	144	.00	.26	.0491	.06161
Corporate Governance	144	.00	.91	.8222	.14278
Leverage	144	.04	.90	.4069	.16509
Institutional Ownership	144	.09	1.00	.5798	.20454
Board Gender of Diversity	144	.00	.38	.1415	.10652
Valid N (listwise)	144				

Source: Data processed by the author

From 144 valid observations, descriptive results show that Corporate Governance (CG) averaged 0.8222 (SD = 0.14278), Institutional Ownership (IO) 0.5798 (SD = 0.20454), Leverage (LV) 0.4069 (SD = 0.16509), and Board Gender Diversity (BGD) 0.1415 (SD = 0.10652). Tax Avoidance (TA) averaged 0.0491 with an SD of 0.06161. As noted by (Ghozali, 2021), the higher standard deviation of TA indicates data heterogeneity, reflecting firm-level differences within the sample.

Normality Test

Normality tests are carried out to ensure that residual data is distributed normally before linear regression analysis is carried out. The test uses the One-Sample Kolmogorov-Smirnov Test method, as seen on the following table below:

Table 3. Normality Test

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			144
Test Statistic			.101
Monte Carlo Sig. (2-tailed)	Sig.		.104d
	99% Confidence Interval	Lower Bound	.096
		Upper Bound	.111

Source: Data processed by the author

According to Ghozali (2018) in Paramita (2020), the normality of residuals is assessed using the Monte Carlo Exact Test. If the Monte Carlo Sig. (2-tailed) value exceeds 0.05, the data are normally distributed; if it is below 0.05, they are not. The Kolmogorov-Smirnov test results show a Monte Carlo Sig. of 0.104 (>0.05) at a 99% confidence level, indicating that the residuals are normally spread out.

Multicollinearity Test

Table 4. Multicollinearity Test

Type		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Corporate Governance	.605	1.653
	Leverage	.538	1.859
	Institutional Ownership	.707	1.413
	Board Gender of Diversity	.633	1.579

Source: Data processed by the author

The multicollinearity test was conducted to ensure no strong correlations among variables in the regression model. Based on Hair Jr et al. (2019), a model is free from multicollinearity if Tolerance > 0.10 and VIF < 10. The results show all variables meet these criteria. Corporate Governance (0.605; 1.653), Leverage (0.538; 1.859), Institutional Ownership (0.707; 1.413), and Board Gender Diversity (0.633; 1.579), indicating no multicollinearity issues in the model.

Heteroscedasticity Test

The heteroscedasticity test, conducted using the Glejser method, aimed to detect variance inequality in the residuals. Following Ghozali (2018), a model is free from heteroscedasticity if Sig. > 0.05. Results show all variables meet this criterion—Corporate Governance (0.244), Leverage (0.197), Institutional Ownership (0.052), and Board Gender Diversity (0.056)—indicating no heteroscedasticity in the model.

Table 5. Heteroscedasticity Test

Variable		T Value	Sig.
1	(Constant)	.179	.858
	Corporate Governance	1.170	.244
	Leverage	1.298	.197
	Institutional Ownership	-1.960	.052
	Board Gender of Diversity	-1.931	.056

Source: Data processed by the author

Moderated Regression Analysis (MRA)

The study employed Moderated Regression Analysis (MRA) to test the research hypotheses, examining both the influence of independent variables on the dependent variable and the moderating role of the Board Gender Diversity variable.

Table 6. ANOVA Table in MRA Test

ANOVA[a]		
Model	F	Sig.
Regression	8.586	.000b

Source: Data processed by the author

As seen on the ANOVA table, the value of F = 8.586 with a significance of 0.000 (<0.10) indicates that the regression model as a whole is significant, so that independent, moderate, and interaction variables together affect Tax Avoidance.

Table 7. MRA Test Result

Variable	Coefficient (B)	T Value	Sig.
(Constant)	.320	1.825	.070
Corporate Governance	.016	.047	.740
Leverage	.058	1.172	.243
Institutional Ownership	-.150	-4.058	.000
Corporate Governance * Board Gender Diversity	1.508	1.967	.051
Leverage * Board Gender Diversity	.235	.642	.522
Institutional Ownership * Board Gender Diversity	.616	1.817	.071

Source: Data processed by the author

The Influence of Corporate Governance on Tax Avoidance

Referring to Table 8 of the MRA Test Results, corporate governance does not have a significant effect on tax avoidance, indicated by a significance value of 0.740, which is greater than the 0.10 level. This finding suggests that the quality of governance implementation is not a proven factor influencing tax avoidance practices within this sample.

This lack of influence is strongly indicated by the homogeneity of the sample data; descriptive statistics show that, on average, the real estate companies studied (2015-2024) already possess good corporate governance. According to Hair Jr et al. (2019), this 'restriction of range' (lack of variation) means there is insufficient variance for the statistical model to detect a significant relationship, which attenuates the result and leads to non-significance.

This conclusion is consistent with previous research by Handoyo et al. (2022), Liyundira et al. (2023), Reswita et al. (2024), which also found that corporate governance had no significant effect on tax avoidance.

The Effect of Leverage on Tax Avoidance

Based on the MRA test results, a coefficient value of leverage is 0.58 was obtained with a significance value of 0.243, which is greater than 0.10. This result proves that leverage does not have a significant effect on tax avoidance. This finding implies that the proportion of debt in corporate financing does not have an impact on the level of tax avoidance practices. This is consistent with the research by Karlina & Wirajaya (2024), Prastya & Merkusiwati (2024), Putri et al. (2022), Wuriti & Noviari (2023) which also found that leverage is not a significant determinant of tax avoidance. This may indicate that companies do not use leverage as a tax avoidance strategy.

The Influence of Institutional Ownership on Tax Avoidance

Based on table of the MRA Test Results, a regression coefficient of -0.150 was obtained with a significance value of 0.000. This significance value (0.000) is less than α = 0.10. It is crucial to carefully interpret the direction of this result. Since the Effective Tax Rate (ETR) serves as an inverse proxy for tax avoidance (where lower ETR indicates higher tax avoidance), the negative coefficient (-0.150) signifies that Institutional Ownership has a positive and significant effect on Tax Avoidance. Consequently, the third hypothesis (H3), which predicted a negative influence, is rejected.

This finding in real estate companies indicates that a large institutional ownership stake will instead push the company to engage in tax avoidance. This can be explained through Agency Theory, where IO acts not just as a passive monitor, but as a sophisticated principal. They possess the expertise and bargaining power to pressure management (the agent) to be more aggressive in tax planning, with the primary goal of maximizing their investment returns.

This finding is in line with the research by Eka Safitri & Atwal Arifin (2023), Listianti & Rudi (2024), Sholikhah & Nurdin (2022) and Suryatna (2023), which also concluded that institutional ownership has a positive effect on tax avoidance.

Board Gender Diversity as a Moderation of the Influence of Corporate Governance on Tax Avoidance

The interaction test results show that Board Gender Diversity moderates the link between Corporate Governance and Tax Avoidance ($p = 0.051 < 0.10$), indicating a moderating effect. Theoretically, women's presence on boards enhances oversight and promotes more ethical, cautious tax decisions (Laurensia et al., 2024; Sofyawati & Rohman, 2024).

Board Gender Diversity as a Moderation of the Influence of Leverage on Tax Avoidance

Leverage showed no significant impact on tax avoidance ($p = 0.243 > 0.10$), indicating that debt levels in a company's capital structure do not influence its tax avoidance practices. Consistent with Hossain et al. (2025), leverage showed no effect, suggesting that property and real estate firms use debt mainly for expansion and asset management rather than tax planning.

Board Gender Diversity as a Moderation of the Influence of Institutional Ownership on Tax Avoidance

The interaction test shows that Board Gender Diversity (BGD) moderates the connection among Institutional Ownership and Tax Avoidance at the 10% level ($p = 0.071 < 0.10$), indicating that gender-diverse boards enhance institutional oversight in curbing tax avoidance. Theoretically, female board members could improve the quality of external oversight and encourage more ethical tax decisions (Laurensia et al., 2024; Sofyawati & Rohman, 2024).

CONCLUSION

This study finds that among the three independent variables, corporate governance, institutional ownership, and leverage. Only institutional ownership has a positive effect on Tax avoidance. This indicates that a large institutional ownership stake, contrary to expectations, may push the company to engage in tax avoidance, possibly due to pressure for short-term profits. In contrast, corporate governance and leverage show no significant influence, implying that governance practices and debt structures in property and real estate companies are not yet strong enough to shape tax-related decisions.

As a moderating variable, board gender diversity moderates the link between corporate governance and tax avoidance and moderates the relationship between institutional ownership and tax avoidance. This shows that women's participation on boards enhances oversight and ethical judgment. Even though Institutional Ownership broadly encourages Tax Avoidance, the presence of female directors appears to mitigate this effect, promoting caution and accountability. Overall, Institutional Ownership is identified as a key driver of Tax Avoidance, while Board Gender Diversity supports ethical supervision. However, improvements in governance mechanisms are still needed to strengthen firms' overall commitment to tax compliance.

RESEARCH IMPLICATIONS

For companies and investors, these findings have some practical advice. The most important finding is that Board Gender Diversity has proven to have a real impact. This is not just a social issue, the presence of women on the board has proven to be an effective oversight mechanism that can change the way governance works. In addition, the H3 (Institutional Ownership) findings show that large investors can actually encourage companies to be more aggressive in tax avoidance for the sake of their investment profits, rather than supervising them. The rejected H1 findings also imply that 'good' corporate governance is often just a formality and does not adequately guarantee that companies are tax-compliant.

From a theoretical perspective, these findings are also important. The acceptance of H4 and H5 (Board Gender Diversity Moderation) strengthens agency theory, showing that board gender diversity can change the effectiveness of supervision. The rejection of H3 strongly supports the

"Sophisticated Principal Hypothesis", which challenges the long-held view that Institutional Ownership is passive. Finally, the rejected hypotheses (H1, H2, H5) also provide insights: H1 (Corporate Governance) is likely to be rejected because the data is homogeneous (a statistical problem of limitation of range), and H2 and H5 (Leverage) are likely to be rejected because this is the real estate sector, where debt is used more to buy assets (land/buildings), rather than for tax saving strategies.

LIMITATION

This study has several limitations that should be considered when interpreting the results. First, the measurement of Corporate Governance (X1) relied on a standardized disclosure checklist or index. As highlighted in the implications, this resulted in data homogeneity "restriction of range", where the variation in governance scores among the sampled companies was minimal. Consequently, this proxy may have captured only the formal compliance aspects rather than the substantive quality of governance, leading to the rejection of the hypothesis.

Second, the scope of this study is strictly limited to the Property and Real Estate sector. While this provides specific industry insights, it limits the generalizability of the findings. The rejection of the Leverage hypothesis (X2) suggests that the unique capital structure of this asset-heavy industry where debt is primarily utilized for asset acquisition rather than tax shielding may not reflect the behavior of companies in other sectors such as manufacturing or banking.

Third, the Institutional Ownership (X3) variable was measured in aggregate without distinguishing between different types of investors (e.g., foreign vs. domestic, or transient vs. dedicated). This lack of disaggregation limits the study's ability to pinpoint exactly which category of institutional investors is driving the unexpected positive effect on tax avoidance "Sophisticated Principal Hypothesis". Finally, there are other potential variables influencing tax avoidance that were not included in this model, such as political connections or macroeconomic indicators.

SUGGESTION

Based on this study's conclusions and limitations, several suggestions for future research are offered. First, the non-significant effect of corporate governance (H1) was likely due to data homogeneity ('restriction of range'). Future research should therefore utilize more varied GCG proxies, such as a weighted index, rather than standardized checklists to capture substantive differences.

Second, the unique finding for institutional ownership (H3), which showed an opposite (positive) effect supporting the "Sophisticated Principal Hypothesis," warrants further investigation. It is suggested that future studies disaggregate this variable (e.g., domestic vs. foreign, long-term vs. short-term) to explore these varying pressures on tax avoidance. Third, since the leverage hypotheses (H2 and H5) were rejected within the real estate sector, comparative studies in other industries are needed. This would re-test if leverage acts as a significant tax shield in sectors that are not as asset-heavy.

Finally, as Board Gender Diversity (BGD) proved to be a strong moderator (H4 and H6), future research could extend this concept by examining other board diversity attributes, such as the directors' age, educational background, or nationality, as potential moderators.

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APPENDIX 1.

The Corporate Governance (CG) variable is measured using a checklist of 20 indicators based on OECD principles. A score of "1" is given if the item is disclosed or implemented by the company, and "0" if otherwise.

CG Principle	Criteria	Range	Score
Transparency	a) Disclose the risk management system	Revealed	1
		Not revealed	0
	b) Disclose the stock summary	Revealed	1
		Not revealed	0
	c) Disclose financial performance summary	Revealed	1
		Not revealed	0
	d) Disclose the system and implementation of CG	Revealed	1
		Not revealed	0
	e) Information available on the company's website	Available	1
		None	0
Accountability	a) The number of audit committee members	< 3 people	1
		3 people	2
		> 3 people	3
	b) The number of audit committee members with accounting/financial backgrounds	< 1 person	0
		1 person	1
		> 2 people	2
	c) The number of audit committee meeting in one year	< 4 times	1
		4 times	2
		> 4 times	3
	d) A Reward and punishment system	Available	1
		None	0
	e) Have an internal control system	Available	1
		None	0
Responsibility	a) Carry out social and environmental responsibility	Implemented	1
		Not implemented	0
	b) Carry out an evaluation of company performance	Implemented	1
		Not implemented	0
	c) Quality control/standardization/product certification	Available	1
		None	0
Fairness and Equality	a) Independent auditor's opinion on the financial statements	Disclaimer Opinion	1
		Adverse Opinion	2
		Qualified Opinion	3
		Unqualified Opinion with Explanatory Paragraphs	4

		Unqualified Opinion	5
	b) Provide an opportunity for all stakeholders to provide input and express opinion for the interests of banks and have a homepage as access to information (applicable for financial institution only)	Available	1
		None	0
	c) Occupational health and safety system	Available	1
		None	0
	d) The period of distribution of cash dividends since it was announced	> 30 days	0
		30 days	1
Independence	a) Proportion of independent commissioners	< 30%	1
		30%	2
		> 30%	3
	b) Forming auxiliary committees other than audit committees	Has ≤ 1 committee	1
		Has 2 committees	2
		Has > 2 committees	3
	c) Hold a General Meeting of Shareholders	Implemented	1
		Not Implemented	0

APPENDIX 2.

This table presents the detailed CG Index scores for each company in the sample (Total Observations = 144). The scores are derived from the 20-item checklist presented in Appendix 1. The total score represents the number of disclosed items, which is then converted into the final index percentage.

No	Company	Years									
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.	APLN	0.82	0.82	0.82	0.82	0.88	0.88	0.88	0.88	0.91	0.91
2.	ASRI	0.82	0.82	0.82	0.82	0.88	0.85	0.85	0.88	0.85	0.85
3.	BEST	0.79	0.79	0.79	0.79	0.85	0.85	0.85	0.85	0.85	0.85
4.	BKSL	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
5.	BSDE	0.91	0.88	0.88	0.85	0.85	0.85	0.85	0.85	0.85	0.85
6.	CTRA	0.82	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.91	0.91
7.	DILD	0.85	0.88	0.91	0.88	0.85	0.85	0.85	0.85	0.85	0.85
8.	DMAS	0.88	0.88	0.88	0.88	0.82	0.88	0.85	0.88	0.88	0.88
9.	KIJA	0.88	0.85	0.85	0.85	0.88	0.82	0.88	0.88	0.85	0.85
10.	LPCK	0.82	0.82	0.82	0.85	0.85	0.85	0.82	0.82	0.82	0.85
11.	LPKR	0.82	0.88	0.85	0.85	0.85	0.82	0.82	0.82	0.82	0.88
12.	MDLN	0.88	0.82	0.85	0.76	0.85	0.85	0.85	0.85	0.85	0.85
13.	MMLP	0.79	0.85	0.85	0.82	0.85	0.82	0.82	0.85	0.82	0.82
14.	MTLA	0.85	0.85	0.88	0.88	0.88	0.82	0.88	0.85	0.82	0.88
15.	PUDP	0.82	0.79	0.82	0.85	0.85	0.82	0.73	0.79	0.85	0.85
16.	PWON	0.82	0.82	0.85	0.85	0.85	0.79	0.82	0.82	0.85	0.88
17.	SMRA	0.76	0.79	0.76	0.79	0.85	0.82	0.82	0.85	0.85	0.85
18.	CBDK	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.82