
THE EFFECT OF CAPITAL INTENSITY, INVENTORY INTENSITY, PROFITABILITY, AND LEVERAGE ON TAX AVOIDANCE IN REAL ESTATE COMPANIES

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Abstract

The present study investigates how capital intensity, inventory intensity, profitability, and leverage influence tax avoidance in property and real estate firms listed on the Indonesia Stock Exchange during the 2022-2024 period. A quantitative methodological design is applied, utilizing the Partial Least Squares-Structural Equation Modeling (PLS-SEM) approach with SmartPLS 4 software assistance. Sample selection is conducted through purposive sampling, yielding 33 companies and a total of 99 observations. The analysis relies on secondary data collected from corporate annual financial statements. The results reveal that capital intensity, inventory intensity, and leverage do not have a significant impact on tax avoidance, implying that investment in fixed assets, the scale of inventory holdings, and the firm's financing structure are not key determinants of tax avoidance behavior. Conversely, profitability exhibits a significant correlation with tax avoidance, implying that firms with higher profit levels show a greater tendency toward legally compliant tax efficiency practices. An R^2 value of 0.227 implies that 22.7% of the variability in tax avoidance can be attributed to the independent variables included in the model, while the remaining proportion is attributable to factors not captured in the study. These results imply that financial performance exerts a more prominent impact on tax avoidance behavior compared to the firm's asset composition and financing structure.

Keywords: Capital Intensity, Inventory Intensity, Leverage, Profitability, Tax Avoidance

INTRODUCTION

Taxes are a fundamental instrument of fiscal policy because they finance government expenditure and support economic stability and national development. Through taxation, governments allocate resources to priority sectors, including infrastructure, education, healthcare, and social protection (Mardiasmo, 2023). In developing countries, including Indonesia, tax revenue plays an increasingly important role because it reduces dependence on external financing and strengthens fiscal independence. Consequently, the effectiveness of tax collection is closely associated with the government's capacity to sustain economic growth and maintain long-term fiscal resilience. In this context, taxpayer compliance and the effectiveness of tax administration become essential determinants in optimizing state revenue.

Despite the strategic importance of taxation, Indonesia's tax performance remains relatively weak when compared with its economic potential. This condition is reflected in the declining trend of the tax-to-GDP ratio over the 2022-2024 period. Indonesia's tax ratio decreased from 10.39% in 2022 to 10.31% in 2023 and further declined to 10.08% in 2024, even though tax revenue increased nominally during the same period.

Table 1. Indonesia's Tax Ratio for 2022-2024

(In Trillions)			
Year	Tax Revenue Realization	GDP	Tax Ratio
2022	2.035	19.588	10.39%
2023	2.154	20.892	10.31%
2024	2.232	22.139	10.08%

Source: Data processed by researchers (2026)

The declining tax ratio indicates that tax revenue growth has not kept pace with Gross Domestic Product (GDP) growth. The tax-to-GDP ratio reflects the government's ability to convert economic activity into fiscal revenue (Purnomolastu, 2021). Moreover, Indonesia's tax ratio remains below the World Bank's recommended benchmark of 15%, indicating that fiscal capacity has not yet developed in line with economic growth. This condition reflects not only administrative challenges in tax collection but also structural and behavioral issues that weaken tax compliance and reduce the effectiveness of taxation policies.

One of the major factors contributing to Indonesia's low tax ratio is the persistence of corporate tax avoidance practices. Companies increasingly exploit regulatory loopholes, accounting flexibility, and differences in tax regulations to minimize tax liabilities. According to the State of Tax Justice 2024, Indonesia loses approximately US\$2.8 billion or around Rp44 trillion annually due to tax avoidance activities. Tax avoidance refers to legitimate efforts by taxpayers to minimize tax burdens by utilizing weaknesses under applicable tax rules without contravening legal provisions (Hendrayanti & Fauziyanti, 2022). Although legally permissible, aggressive tax avoidance practices may contradict the substantive objectives of taxation because they reduce the contribution of corporations to public financing.

From a theoretical perspective, tax avoidance behavior can be explained through agency theory, which describes the relationship in which shareholders act as principals and management functions as agents. Misalignment of interests between the two parties may

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encourage managers to make decisions that maximize corporate benefits, including reducing tax burdens to increase after-tax profits. In this context, management may strategically utilize accounting policies, financing decisions, and asset structures to minimize taxable income while remaining within legal boundaries. Therefore, firm financial characteristics such as capital intensity, inventory intensity, profitability, and leverage are considered important factors influencing tax avoidance practices.

A concrete illustration of this issue can be observed in the case of PT BAPI, which was allegedly involved in inaccurate tax reporting and failed to submit tax returns in subsequent periods, potentially causing state losses of approximately Rp2.9 billion. This case demonstrates how weaknesses in financial reporting supervision and regulatory enforcement may create opportunities for companies to exploit accounting and taxation mechanisms for tax minimization purposes. It also indicates that tax avoidance is not merely related to legal loopholes but is closely related to managerial decisions concerning asset management, financing structures, and financial reporting practices.

However, findings from previous studies remain inconsistent and indicate unresolved theoretical tensions regarding the correlation between firm financial characteristics and tax avoidance behavior. Sari & Indrawan (2022) conclude that capital intensity positively impacts tax avoidance because depreciation expenses provide tax-saving opportunities, whereas Fatimah et al. (2021) report insignificant effects due to stricter accounting standards and taxation supervision. Similar inconsistencies are also found in studies examining inventory intensity. Maulana et al. (2025) argue that high inventory intensity increases opportunities for tax avoidance through inventory valuation policies, while Sari & Ajimat (2023) find no significant effect because inventory management is more closely related to operational efficiency than tax planning.

In terms of profitability, Tanjaya & Nazir (2021) argue that highly profitable firms are more likely to avoid taxes because they face greater tax burdens, whereas Cahyati et al. (2023) suggest that profitable companies tend to maintain reputational legitimacy by avoiding aggressive tax strategies. In the context of leverage, debt financing may reduce taxable income through interest deductions (Rahayu & Kurniawati, 2025), yet excessive debt may simultaneously increase external monitoring from creditors and regulators, thereby limiting tax avoidance practices (Sanjaya & Yuniarwati, 2024).

In addition, although inventory intensity has been examined in previous studies, its role in industries with high inventory values and long-term project cycles, such as property and real estate, remains underexplored. Previous research predominantly investigated manufacturing or mixed industrial sectors, which may not fully reflect the financial characteristics of property and real estate firms. This unresolved issue demonstrates the need for further empirical investigation to clarify how capital intensity, inventory intensity, profitability, and leverage simultaneously influence tax avoidance behavior within industries possessing complex asset structures and financing patterns.

Based on these considerations, this research focuses on investigating the effects of capital intensity, inventory intensity, profitability, and leverage on tax avoidance in property and real estate companies during the 2022-2024 period. This research contributes by providing a

sector-specific analysis of tax avoidance within an industry characterized by high asset ownership and complex financing structures. The findings are expected to enrich the literature and provide insights for policymakers in improving tax supervision and optimizing tax revenue.

REVIEW OF LITERATURE

Agency Theory

Agency Theory delineates the contractual association between company proprietors and management, wherein agents are granted a mandate to act to represent the shareholders interests (Jensen & Meckling, 1976). In practice, this relationship may create agency problems due to information asymmetry, wherein management controls more detailed information regarding the company's operational and financial performance than shareholders. Such information imbalance may encourage opportunistic managerial behavior because managers have greater discretion in determining operational, financing, and accounting policies. To reduce the possibility of managerial actions that deviate from shareholders' interests, companies generally incur monitoring and control costs through governance and supervision mechanisms.

In the context of taxation, Agency Theory explains that management may utilize its discretion to implement tax planning strategies aimed at minimizing tax burdens and increasing after-tax profits. Tax avoidance therefore becomes one of the strategies that may arise from conflicts of interest between shareholders, management, and the government as the tax authority. Managers may exploit flexibility in accounting methods, financing decisions, and asset management policies to achieve tax efficiency objectives while remaining within legal boundaries (Ma'sum et al., 2023). Consequently, firm financial characteristics such as capital intensity, inventory intensity, profitability, and leverage are considered important factors influencing tax avoidance behavior.

Tax Avoidance

Tax avoidance refers to a company's effort to reduce tax liabilities by taking advantage of regulatory gaps or weaknesses under applicable tax rules without contravening legal provisions. This practice is generally conducted through transaction structuring, accounting method selection, and the timing of revenue and expense recognition to optimize tax payments (Sari & Indrawan, 2022). Although legally permissible, aggressive tax avoidance practices may reduce state revenue and weaken the effectiveness of the taxation system.

In practice, tax avoidance is closely related to managerial decisions concerning accounting policies, financing structures, and asset management. Companies may utilize flexibility within tax regulations to achieve tax efficiency and maximize after-tax profits while remaining within legal boundaries (Utami & Yohanes, 2023). In this context, firm financial characteristics such as capital intensity, inventory intensity, profitability, and leverage may influence management decisions related to tax avoidance behavior. Therefore, tax avoidance is often associated with managerial incentives to improve company performance through effective tax planning strategies.

The Effect of Capital Intensity on Tax Avoidance

Capital intensity indicates the proportion of company resources invested toward fixed assets. Companies with substantial fixed asset ownership generally record larger depreciation costs, which may diminish taxable income and create opportunities for tax efficiency (Fatimah et al., 2021). Viewed through the lens of Agency Theory, management possesses discretion in determining depreciation methods and asset utilization policies that may influence corporate tax burdens. In the property and real estate sector, fixed assets constitute a dominant component of company operations, thereby increasing the relevance of capital intensity in explaining tax avoidance behavior.

Sari & Ajimat (2023) demonstrate that capital intensity has a favorable impact on tax avoidance because depreciation cost can function as a tax-saving mechanism. Conversely, Fatimah et al. (2021) report insignificant relationships, suggesting that stricter taxation supervision and accounting standards may limit the utilization of depreciation policies for tax avoidance purposes. These inconsistent findings demonstrate that the influence of capital intensity on tax avoidance may fluctuate according to sectoral characteristics and regulatory conditions. Therefore, the following hypothesis is developed:

H_1 = Capital intensity has an influence on Tax Avoidance

The Effect of Inventory Intensity on Tax Avoidance

Inventory intensity describes the ratio of inventory within a company's total assets (Maulana et al., 2025). In property and real estate companies, inventory often consists of land, buildings, and property units that possess relatively high values and long project cycles. Such conditions increase the importance of inventory management because inventory-related costs and valuation methods may directly influence reported profits and taxable income. From the perspective of Agency Theory, management has discretion in determining inventory valuation and cost allocation policies, creating opportunities to achieve tax efficiency objectives.

Empirical evidence regarding the association between inventory intensity and tax avoidance remain inconsistent. Sari & Indrawan (2022) argue that high inventory intensity increases opportunities for tax avoidance because firms may utilize inventory valuation policies to reduce taxable income. However, Sari & Ajimat (2023) report insignificant effects, indicating that inventory management may be more strongly associated with operational efficiency than tax planning. These inconsistencies suggest that the role of inventory intensity may differ across industries, particularly in sectors such as property and real estate that are characterized by substantial inventory balances and long-term development projects. Therefore, the following hypothesis is developed:

H_2 = Inventory intensity has an influence on Tax Avoidance

The Effect of Profitability on Tax Avoidance

Profitability describes the firm's capability to earn profits from its operational activities (Rahayu & Kurniawati, 2025). Firms with greater profitability commonly face greater tax obligations, thereby encouraging management to engage tax planning strategies to minimize tax expenses. Agency Theory explains that managers may utilize accounting flexibility and financial policies to maximize after-tax profits and improve company performance. Consequently, profitability is often associated with stronger incentives for tax avoidance behavior.

Sanjaya & Yuniarwati (2024) report that profitability positively affects tax avoidance because profitable companies have stronger incentives and greater resources to implement tax planning strategies. Nevertheless, Fatimah et al. (2021) find insignificant or negative relationships, suggesting that highly profitable companies may reduce the use of aggressive tax strategies to sustain corporate reputation and legitimacy. These contradictory findings suggest that the association between profitability and tax avoidance remains influenced by managerial incentives, governance mechanisms, and external supervision. Therefore, the following hypothesis is developed:

H₃ = Profitability has an influence on Tax Avoidance

The Effect of Leverage on Tax Avoidance

Leverage describes the proportion of debt financing employed in a company's capital structure. The use of debt generates interest expenses that may be recognized as deductible expenses, consequently decreasing taxable income and creating opportunities for tax efficiency (Sanjaya & Yuniarwati, 2024). Within the framework of Agency Theory, management may strategically utilize financing decisions to optimize company performance and minimize corporate tax burdens. Accordingly, firms with substantial leverage levels are often considered more inclined to implement tax avoidance practices.

Rahayu & Kurniawati (2025) confirm a positive effect between leverage and tax avoidance because interest deductions provide direct tax-saving benefits. However, Cahyati et al. (2023) report contradictory findings, arguing that high leverage may increase external monitoring from creditors and regulators, thereby limiting aggressive tax practices. In the Indonesian taxation context, where interest expenses may reduce taxable income under specific regulations, leverage remains relevant in explaining tax avoidance behavior, especially in capital-intensive industries such as property and real estate. Therefore, the following hypothesis is developed:

H₄ = Leverage has an influence on Tax Avoidance

RESEARCH METHOD

This research is conducted using a quantitative approach to examine the associations among variables and analyze the proposed hypothesis through statistical analysis. The study adopts a positivist approach that emphasizes the use of numerical data and objective measurement (Cresswell & Cresswell, 2023). Secondary data were collected based on annual financial statement data of property and real estate companies listed on the IDX for the 2022-2024 period. The data were collected through the official websites of the IDX and the respective companies.

The study population included 92 property and real estate firms listed on the IDX. Purposive sampling was used in selecting the sample based on particular criteria, as presented in Table 2, to ensure the suitability of the data for the research objectives.

Before conducting the evaluation, the data were reviewed to ensure completeness and consistency. Companies with unavailable data related to the research variables were excluded from the sample selection process. In addition, the study considered the presence of extreme data values by evaluating the distribution of the data to reduce the possibility of bias in the

analysis results. Partial Least Squares Structural Equation Modeling (PLS-SEM) was considered appropriate because this method is relatively robust in managing non-normal data distributions and suitable for studies with limited sample sizes.

The analysis was conducted using SmartPLS version 4 to investigate the relationships between capital intensity, inventory intensity, profitability, leverage, and tax avoidance. PLS-SEM was selected because it is capable of simultaneously testing multiple relationships between variables and is suitable for predictive-oriented research models. Furthermore, this method allows the analysis of complex relationships between variables while maintaining statistical reliability despite the relatively limited number of observations.

Table 2. Sample Selection Criteria

No	Criteria	Total
1	Real estate companies listed on the Indonesia Stock Exchange (IDX) from 2022 to 2024	92
2	Companies whose stock trading has been suspended or temporarily halted on the Indonesia Stock Exchange	(10)
3	Companies that did not consistently submit financial statements as of December 31 during the observation period	(9)
4	Companies that incurred losses during the observation period	(36)
5	Companies that do not have complete information regarding the measurement of research variables	(4)
Total Sample		33
Total Processed Data (2022-2024)		99

Source: Data processed by researchers (2026)

Measurement of Variables

The measurement methods of the variables used in this study are presented in Table 3. Each variable was measured using financial ratios commonly applied in previous taxation and accounting studies to ensure measurement consistency and comparability. Tax avoidance was proxied using the Effective Tax Rate (ETR), while capital intensity, inventory intensity, profitability, and leverage were measured using ratios derived from the companies' financial statements. The use of these indicators allows the variables to be quantified objectively and supports the statistical analysis conducted in this study.

Table 3. Operational Definitions of Variables

Variable	Indicator	Measurement Formula
Tax Avoidance	Effective Tax Rate (ETR)	$ETR = \frac{\text{Tax Expense}}{\text{Income Before Tax}}$
Capital Intensity	Capital Intensity Ratio (CI)	$CI = \frac{\text{Total Fixed Assets}}{\text{Total Assets}}$
Inventory Intensity	Inventory Intensity Ratio (II)	$II = \frac{\text{Total Inventory}}{\text{Total Assets}}$
Profitability	Return on Assets (ROA)	$ROA = \frac{\text{Net Income After Taxes}}{\text{Total Assets}} \times 100\%$
Leverage	Debt to Equity Ratio (DER)	$DER = \frac{\text{Total Debt}}{\text{Total Equity}}$

Source: Data processed by researchers (2026)

RESULTS AND DISCUSSION

Descriptive Statistics

Table 4. Descriptive Statistics Results

	N	Min	Max	Mean	Std. Deviation
ETR	99	0.0002	0.8592	0.1382	0.1663
CI	99	0.0002	0.7698	0.0967	0.1563
II	99	0.0005	0.9316	0.4403	0.2645
ROA	99	0.0002	0.1840	0.0466	0.0412
DER	99	0.0023	1.6308	0.5609	0.3764

Source: Output SmartPLS (2026)

According to Table 4, the tax avoidance variable represented by the Effective Tax Rate (ETR) indicates a mean value of 0.1382 with a standard deviation of 0.1663. Since the standard deviation is higher than the mean value, the ETR data are classified as heterogeneous, indicating considerable variation in tax avoidance practices among the sampled companies. The capital intensity (CI) variable indicates a mean value of 0.0967 with a standard deviation of 0.1563. Because the standard deviation is higher than the mean value, the CI data are also considered heterogeneous, suggesting differences in the proportion of fixed asset ownership among companies. Meanwhile, inventory intensity (II) indicates a mean

value of 0.4403 with a standard deviation of 0.2645. As the standard deviation is lower than the mean value, the II data are classified as homogeneous, indicating that inventory ownership tends to be relatively similar across companies.

The profitability variable represented by ROA indicates a mean value of 0.0466 with a standard deviation of 0.0412. Since the standard deviation is lower than the mean value, the ROA data are considered homogeneous, indicating relatively stable profitability levels among the sampled companies. Similarly, the leverage variable represented by the Debt-to-Equity Ratio (DER) indicates a mean value of 0.5609 with a standard deviation of 0.3764. Because the standard deviation is lower than the mean value, the DER data are also classified as homogeneous, suggesting that the companies tend to have relatively similar financing structures in terms of debt usage.

Outer Model (Measurement Model)

Convergent Validity

Convergent validity is applied to confirm that the indicator aligns with the latent variable, by examining the outer loadings and AVE. The criteria are met if the outer loading exceeds 0.70 and the AVE is greater than 0.50.

Table 5. Outer Loading Value

Indicator	Variable	Nilai Outer Loading	Criteria	Description
CI	Capital Intensity	1.000		
II	Inventory Intensity	1.000		
ROA	Profitability	1.000	>0.7	Valid
DER	Leverage	1.000		
ETR	Tax Avoidance	1.000		

Source: Output SmartPLS (2026)

The results indicate that all variables achieved outer loading values > 0.70, demonstrating that the indicators are capable of adequately representing their respective constructs. This finding indicates that the convergent validity criteria have been fulfilled, meaning that each indicator is sufficiently correlated with the latent variable it measures.

Table 6. AVE Value

Indicator	Variable	Nilai AVE	Criteria	Description
CI	Capital Intensity	1.000		
II	Inventory Intensity	1.000		
ROA	Profitability	1.000	>0.5	Valid
DER	Leverage	1.000		
ETR	Tax Avoidance	1.000		

Source: Output SmartPLS (2026)

These findings indicate that all variables satisfy the established convergent validity criteria, as evidenced by AVE values > 0.50. This condition demonstrates that each construct is capable of explaining the variance of its indicators adequately and reflects a satisfactory

level of construct representation. Therefore, all variables can be considered valid and suitable for application in the research process and subsequent statistical analysis.

Discriminant Validity

Discriminant validity assesses the differences between latent constructs, with indicators exhibiting the highest cross loadings on their respective constructs and an AVE root that is greater than their correlations with other constructs.

Table 7. Cross Loading Value

	Capital Intensity	Inventory Intensity	Profitability	Leverage	Tax Avoidance
CI	1.000	-0.454	-0.293	0.279	-0.153
II	-0.454	1.000	-0.011	-0.232	0.133
ROA	-0.293	-0.011	1.000	-0.349	0.174
DER	0.279	-0.232	-0.349	1.000	-0.476
ETR	-0.153	0.133	0.174	-0.476	1.000

Source: Output SmartPLS (2026)

The cross-loading results reveal that each indicator records its strongest loading value on its respective construct relative to its correlations with other constructs. Therefore, these findings indicate that the constructs are empirically distinct from one another, meaning that all variables satisfy the discriminant validity criteria and are suitable for further analysis in this study.

Compose Reliability

This reliability test assesses the consistency of the indicators in indicating the latent variable. Reliability of a variable is confirmed when Composite Reliability exceeds 0.70.

Table 8. Cronbach's Alpha and Composite Reliability Value

Indicator	Variable	Cronbach's Alpha	Composite Reliability	Criteria	Description
CI	Capital Intensity	1.000	1.000		
II	Inventory Intensity	1.000	1.000		
ROA	Profitability	1.000	1.000	>0.7	Reliable
DER	Leverage	1.000	1.000		
ETR	Tax Avoidance	1.000	1.000		

Source: Output SmartPLS (2026)

All variables obtained Cronbach's Alpha and Composite Reliability values > 0.70 indicating that the constructs satisfy reliable based on the criteria. These results demonstrate that the indicators are capable of consistently measuring their respective latent constructs and producing stable measurements across the research model.

Inner Model (Structural Model)

Coefficient of Determination (R-Square)

R-Square (R^2) measure indicates the degree to which the independent variables collectively explain the dependent variable. The R^2 value (0-1) indicates the strength of the model, where higher values reflect a better representation of the phenomenon.

Table 9. R-Square Value

	R Square
Tax Avoidance	0.227

Source: Output SmartPLS (2026)

The results that the R^2 value for the tax avoidance variable is 0.227 or 22.7%. This finding indicates that capital intensity, inventory intensity, profitability, and leverage collectively explain 22.7% of the variability in tax avoidance. Meanwhile, the unexplained 77.3% is affected by other external variables beyond the scope of this study. Nevertheless, the model remains relevant because it demonstrates that capital intensity, inventory intensity, profitability, and leverage still provide explanatory contributions to tax avoidance practices in property and real estate companies.

Cross Validated Redudancy (Q-Square)

Q-Square (Q^2) measures the predictive power of the PLS-SEM model for the dependent variable. A Q^2 value greater than 0 indicates good predictive power, while a Q^2 value of 0 or less indicates weak predictive power.

Table 10. Q-Square Value

	Q Square
Tax Avoidance	0.186

Source: Output SmartPLS (2026)

A Q^2 value of 0.186 implies that the independent variables have predictive relevance in explaining the dependent variable within the model. Although the predictive power is not strong, it remains above zero, indicating that the constructed model is still relevant and has acceptable predictive capability in explaining variability in the dependent variable.

Hypotesis Test

This study tests four hypotheses regarding the influence of independent variables on the dependent variable. A hypothesis is accepted if the results of the path coefficient test show a P-value less than 0.05.

Table 11. Path Coefficients & P-Values

	Path Coefficients	P-Values	Result
Capital Intensity -> Tax Avoidance	-0.012	0.886	Rejected
Inventory Intensity -> Tax Avoidance	0.020	0.841	Rejected
Profitability -> Tax Avoidance	0.465	0.000	Accepted
Leverage -> Tax Avoidance	0.008	0.943	Rejected

Source: Output SmartPLS (2026)

The test results indicate that Capital Intensity is insignificant determinant of tax avoidance, as shown with a p-value of 0.886, which is greater the significance level, and a coefficient of -0.012. Therefore, the first hypothesis is not supported. A similar result is found for Inventory Intensity, which also shows insignificant effect on tax avoidance, as shown with a p-value of 0.841 and a coefficient of 0.020. Consequently, the second hypothesis is rejected.

However, Profitability has a significant positive impact on tax avoidance, as shown with a p-value of 0.000 and a coefficient of 0.465, meaning that the third hypothesis is accepted. Meanwhile, Leverage has no significant impact on tax avoidance, as shown with a p-value of 0.943 and a coefficient of 0.008. Consequently, the fourth hypothesis is rejected.

The Effect of Capital Intensity on Tax Avoidance

This finding indicates that the level of capital intensity has no significant impact on tax avoidance behavior among the observed firms. From a theoretical standpoint, capital intensity describes the share of company investment directed toward fixed assets that subsequently create depreciation cost; however, these expenses arise as a natural outcome of operational activities rather than as an intentional mechanism for tax minimization (Yunitasari & Budiman, 2025). In practice, depreciation is governed by standardized accounting principles and tax regulations that strictly define asset useful life, depreciation methods, and allowable deductions, thereby constraining managerial flexibility in exploiting depreciation for tax planning purposes. In the real estate business context, which are usually characterized by substantial holdings in land and buildings, fixed assets function primarily as long-term operational infrastructure rather than as instruments for aggressive tax strategy formulation. Land assets, in particular, are not depreciable, which further weakens the theoretical link between capital intensity and tax reduction incentives. Consequently, the proportion of fixed assets in such firms does not necessarily reflect variations in tax avoidance behavior, but rather operational scale and investment structure.

Moreover, the insignificance of capital intensity in influencing tax avoidance suggests that firms in this sector may not rely on asset composition as a tax planning channel, but instead prioritize other financial strategies that are more flexible and responsive to regulatory constraints. This interpretation aligns with Fatimah et al. (2021), who also found no significant correlation between capital intensity and tax avoidance, but contrasts with the findings of Sari dan Indrawan (2022). In addition, the existence of strict tax supervision and standardized depreciation rules reduces opportunities for discretionary reporting manipulation, thereby weakening the potential strategic role of fixed assets in tax avoidance schemes. These conditions collectively reinforce the conclusion that capital intensity in asset-heavy sectors such as real estate is more reflective of operational investment decisions than of tax aggressiveness behavior.

The Effect of Inventory Intensity on Tax Avoidance

This finding confirms that inventory intensity has no significant impact on tax avoidance behavior. Theoretically, inventory intensity reflects the proportion of inventory within total assets, which is generally associated with operational costs such as storage, maintenance, and the risk of obsolescence; however, these costs arise as a natural consequence of business operations and are not intended as mechanisms for tax reduction (Zalukhu & Pratiwi, 2023). In addition, the application of standardized accounting standards and tax regulations, particularly in inventory valuation methods such as FIFO or weighted average, limits managerial discretion in manipulating inventory for tax planning purposes. These regulatory constraints reduce the possibility of using inventory as a tool for tax

avoidance, as the recognition and valuation of inventory are strictly governed and subject to audit monitoring.

in the property and real estate industry context, inventory primarily consists of land development projects and construction work in progress, which represent the core operational activities of the firm. Inventory in this industry is closely linked to long-term project cycles and revenue generation processes, so its management is more focused on operational efficiency rather than tax planning strategies. Therefore, variations in inventory intensity reflect differences in project scale and business structure rather than differences in tax avoidance behavior, indicating that inventory functions more as an operational asset than a tax planning instrument. Furthermore, the insignificance of inventory intensity is reinforced by the strict regulatory environment and the inherent characteristics of real estate projects, which are long-term, capital-intensive, and less flexible in asset management. Tax authorities also closely monitor inventory valuation in this sector, further limiting opportunities for manipulation. As a result, inventory intensity is more strongly associated with business operations than with tax avoidance strategies, suggesting that tax avoidance in this sector is more strongly affected by other mechanisms such as financing decisions or timing differences in revenue recognition. This interpretation aligns with Sari dan Ajimat (2023), who also found no significant correlation between inventory intensity and tax avoidance, but contrasts with the findings of Maulana et al. (2025).

The Effect of Profitability on Tax Avoidance

This finding indicates that higher profitability is correlates with a stronger inclination toward tax avoidance, as increased profits are followed by a higher tax obligation that the company must bear. From a conceptual perspective, profitability indicates the company's capability to produce earnings through its operational activities, which creates stronger incentives for management to design tax planning strategies oriented toward legally reducing tax liabilities (Aprilliani & Sari, 2025). In this context, profitability does not solely represent financial performance but additionally functions as a driver of managerial behavior in optimizing after-tax income within the boundaries of tax regulations. As taxable income increases along with profitability, firms face greater pressure to manage effective tax rates through allowable accounting choices and tax planning mechanisms.

In the property and real estate sector, profitability generally arises from successful project completion, efficient land development, and effective asset utilization, all of which directly increase potential tax obligations. This condition strengthens managerial motivation to engage in tax planning activities that remain compliant with prevailing regulations but are aimed at reducing the tax burden. Within this sector, tax avoidance practices are more likely to emerge through timing differences in revenue recognition, utilization of fiscal incentives, or other accounting-based strategies rather than through asset structure manipulation. Therefore, profitability becomes an important determinant that indirectly shapes tax planning intensity, as higher earnings expand both the capacity and incentive for firms to optimize their tax position. Furthermore, these findings indicates that tax avoidance behavior in profitable firms is more likely to be shaped by flexible financial and accounting decisions rather than structural asset characteristics, as profitability directly affects the magnitude of

taxable income and the perceived benefits of tax planning strategies. This interpretation aligns with Widiyanti dan Ratnawati (2025), who also found significant correlation between profitability and tax avoidance, but contrasts with the findings of Rizky dan Andayani (2025).

The Effect of Leverage on Tax Avoidance

This finding suggests that leverage has no significant impact on a company's propensity toward tax avoidance. Theoretically, the use of debt utilization generates interest costs that can decrease taxable income; however, in practice, debt is not consistently used as a deliberate mechanism for tax minimization (Haudi et al., 2021). Instead, firms tend to adopt a prudential approach in managing their capital structure because higher leverage increases financial risk, including liquidity pressure and default risk, which shifts managerial priorities toward maintaining financial stability and compliance with contractual obligations (Dewi & Oktaviani, 2021). As a result, although leverage has a theoretical tax benefit through interest deductibility, its practical role is more closely related to financing decisions than tax planning strategies. In the property and real estate sector, leverage is primarily used to finance capital-intensive activities such as land acquisition, construction projects, and long-term development cycles. These activities require substantial external funding, making debt a functional source of financing rather than a discretionary tool for tax optimization. However, the use of high leverage also increases exposure to financial risk and creditor pressure, which encourages firms to prioritize cash flow stability and debt repayment capacity. In this context, managerial decisions related to debt usage are more strongly influenced by project continuity and financial risk management than by tax avoidance considerations.

From a regulatory perspective, the insignificant effect of leverage can also be understood in relation to strict tax and financial oversight mechanisms. Thin capitalization rules limit the degree to which companies can rely on excessive leverage to decrease taxable income, while debt covenant requirements and creditor monitoring further restrict opportunistic financing behavior. These institutional constraints reduce the flexibility of firms to exploit leverage as a tax planning instrument. At the same time, tax authorities tend to scrutinize highly leveraged firms more closely, which may discourage aggressive tax strategies and reinforce compliance-oriented behavior. Consequently, leverage is more strongly associated with risk management and regulatory compliance than with tax avoidance practices. Furthermore, these findings imply that tax avoidance behavior in the property and real estate sector is more likely driven by variables that offer greater accounting flexibility rather than structural financing decisions such as leverage. This interpretation aligns with Sanjaya dan Yuniarwati (2024), who also found no significant correlation between leverage and tax avoidance, but contrasts with the findings of Rahayu dan Kurniawati (2025).

CONCLUSION

This research analyzes the effects of capital intensity, inventory intensity, profitability, and leverage on tax avoidance among property and real estate companies listed on the Indonesia Stock Exchange (IDX) over 2022-2024 period. The results show that capital intensity, inventory intensity, and leverage do not impact tax avoidance, while profitability has a significant positive impact, indicating that higher profitability is correlated with greater

tax avoidance practices as part of corporate tax planning behavior. Theoretically, these findings support agency theory, where managerial discretion under information asymmetry may encourage tax planning to optimize after-tax performance, while practically they suggest that tax authorities should pay closer attention to highly profitable firms in sectors with complex project-based characteristics such as property and real estate. This study is limited by the number of variables, the short observation period, and its sectoral focus; accordingly, further study is encouraged to include additional variables, extend the period, broaden the sample, and use alternative measures such as CETR, GAAP ETR, and ABTD to improve analysis accuracy.

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