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Research Article

Tax Avoidance Analysis through Capital Intensity, Inventory Intensity, and Leverage

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Abstract: This study aims to present evidence on the effect of capital intensity, inventory intensity, and leverage disclosure on tax avoidance. This research utilizes secondary data from financial statements sourced from www.idx.co.id and the official websites of companies in the property and real estate sectors using quantitative research. The proxy used in measuring tax avoidance is using the effective tax rate (ETR) as the dependent variable and the independent variables used include capital intensity, inventory intensity, and leverage. Multiple linear regression analysis is the analysis technique used. The property and real estate sector listed on the IDX in the period 2021 to 2024 is the population in this study and the number of samples collected is 85 data obtained using the purposive sampling method. The findings of this research indicate that capital intensity, inventory intensity, and leverage significantly influence tax avoidance positively. These findings suggest that the higher the level of investment in fixed assets, inventory, and debt-to-equity ratio, the greater the tendency of a company to engage in tax avoidance.

Keywords: Capital Intensity; Effective Tax Rate (ETR); Inventory Intensity; Leverage; Tax Avoidance

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1. Introduction

Taxes represent one of the various sources of income for the state. Based on Law No. 7 of 2021, Article 1, paragraph 1, taxes are characterized as a financial duty that an individual or organization is required to pay to the government per the relevant laws without direct deductions, with the aim of supporting the government's need to achieve optimal public welfare (Khaerany et al., 2024).

Tax avoidance practices implemented by companies are undoubtedly linked to the company's goal of profit. Significant profits can be generated by reducing corporate expenses, including taxes, and maximizing revenue. The persistence of weaknesses in tax regulations encourages entrepreneurs to alter their actual data to reduce their corporate tax expense (Maulana et al., 2022).

In business, taxes are viewed as a responsibility that may decrease net profit. However, on the other hand, the government is very interested in optimizing tax revenue. This difference in objectives creates a difference in the meaning of taxes. The government strives to achieve consistent and high tax revenues, while companies desire high business profits by reducing their corporate tax liabilities. This difference encourages many companies to actively implement tax avoidance. One method companies employ to reduce their tax liabilities is tax avoidance (Firliana & Yanto, 2024).

The real estate and property industry is an essential part of the economy, involving various activities related to the development, sale, rental, and management of land and buildings. The term "property" is often used broadly and can encompass intangible assets such as ownership rights, while "real estate" more specifically refers to land and the physical buildings connected to it. In relation to tax avoidance, the property and real estate sector is associated with high transaction values, complex ownership structures, and various regulations. This sector is a fertile ground for aggressive tax planning and risks that lead to tax avoidance. Grasping the options and techniques for tax evasion in the property and real estate sector is essential. Efficient measures for prevention and enforcement are essential to maintaining the integrity of the tax system and ensuring the sector's contribution to state revenues (Djatnicka et al., 2022).

The government sets corporate income tax rates for public companies. Under Regulation No. 55 in 2022, taxpayers must report compliance with requirements to the Directorate General of Taxes (DGT) to obtain this facility. Previously, this provision was regulated by Minister of Finance Regulation No. 123 in 2020. Effective April 11, 2023, the provision was updated through Minister of Finance Regulation No. 40 of 2023 (PMK 40/2023) with several changes, including an adjustment to the corporate income tax rate in Article 2. Initially, the corporate income tax rate for 2022 was expected to decrease to 20%, but under PMK 40/2023, the applicable rate is 22%, as stipulated in the regulation related to the harmonization of tax regulations (UU HPP). Article 5 explains that reports on compliance with requirements consist of two types to obtain the lower rate: share ownership reports and monthly reports of those with special relationships between major and controlling shareholders (ortax.org, 2023). Table 1 shows the instability of state revenue achievement (in billions of Rupiah) for 2020-2024.

Table 1. Realization of State Revenue (in Billions of Rupiah) for 2020-2024

Year	Tax Revenue	Non-Tax Revenue
2020	1,285,136.32	343,814.21
2021	1,547,841.10	458,493.00
2022	2,034,552.50	595,594.50
2023	2,118,348.00	515,800.90
2024	2,309,859.80	492,003.10
Amount	**9,295,737.72**	**2,405,705.71**

Source: (bps.go.id, 2024)

From the table provided, it is evident that from 2020 to 2024 tax revenues showed a higher figure compared to non-tax revenues. The majority of tax revenues are allocated to fund various development programs. This funding will be used to build and improve infrastructure such as roads, bridges, and public transportation. This is a crucial foundation for sustainable economic growth. With the availability of appropriate facilities and infrastructure, Supporting increased investment and business activity and improving public access to various areas. The government also uses taxes to finance social programs in the education, health, and social protection sectors. Funding taxes enables the government to provide high-quality, affordable education services to all levels of society, improve access to appropriate health services, and provide what is needed to provide social security (Pajak.go.id, 2024).

The height shadow economy the shift in economic structure toward digitalization and the size of the informal sector pose challenges to increasing tax revenue. In February 2024, the Central Statistics Agency (BPS) recorded that 84.13 million people, or approximately 59.17% of the total workforce in Indonesia, were involved in the informal sector. However, this percentage decreased compared to 60.12% in February 2023 (nasional.kontan.co.id, 2024). As global uncertainty reigns, data and analysis from Jones Lang La Salle (JLL) International shows that commercial real estate (CRE) investment in the Asia Pacific region is growing by 23% year-on-year. By 2024, this investment value is expected to reach US$131.3 billion (kontan.co.id, 2025). Rakhmat Yulianto, Director of Promotion Development at the Ministry of Investment (BKPM), stated that the property sector contributed Rp122.9 trillion, or 7.2 percent, to total national investment realization last year, primarily in the housing, industrial estates, and office subsectors. According to Rakhmat, property is the fourth most significant contributing sector throughout 2024. Between 2015 and 2024, the property and real estate sector's GDP grew by an average of 5.31 percent. The property and real estate sector contributed 6.74 percent to the national workforce in 2020 and 2024 (antaranews.com, 2025). Tax collection by the government is not always well received by taxpayers, due to differing interests between the two. For the government, taxes are a primary source of revenue used to carry out various state activities, and are considered an expense that taxpayers must fulfill as a form of contribution to supporting national development. Companies implement various options to minimize their tax expense, including tax avoidance (Wizanasari, 2024).

One instance where companies attempt to engage in tax avoidance practices is vulnerability to illicit financial flows. A study by the Tax Justice Network also highlighted Indonesia's vulnerability to illicit financial flows that harm the country. Indonesia's greatest susceptibility to illicit financial flows occurs in imports through the trade channel. Imports totaled US$138.6 billion, highlighting considerable vulnerability to clandestine trading partners such as China, Vietnam, and Singapore, which account for the majority of the nation's security threats. Industries especially susceptible to price manipulation consist of electronics, textiles, and minerals. A comprehensive examination of sector-specific import risks is required to gain a deeper insight into Indonesia's vulnerabilities (Taxjustice.net, 2025).

This study identifies the risks and challenges in monitoring and controlling financial flows that can lead to losses in the national fiscal year. The presence of this phenomenon prompts the examination of different factors affecting tax avoidance. Capital intensity denotes the proportion of fixed assets in relation to a company's total assets. Companies invest in fixed assets used in the production process and generate profits (Syach & Witono, 2024). Companies with a lot of fixed assets tend to spend more money overall because they can still deduct the cost of reducing those assets from their annual income (Khayati et al., 2024). The relationship between fixed assets and taxation occurs through depreciation. Depreciation is a cost that can help lower profits before tax. When depreciation is applied to decrease profits, the tax expense due will be reduced (Nauli Sipayung et al., 2023). Research conducted Adnan & Haq (2025), Adira & Tanjung (2025), and Komalasari & Suharna (2024) shows that the impact of capital intensity on tax avoidance is not relevant with the findings from Nisa & Fitriyah (2023), Wizanasari (2024), and Setiawati & Tanggreini (2025) which found no impact on tax avoidance caused by capital intensity. This inconsistency may be due to differences in industry sectors and observation periods. The property sector tends to have large fixed assets (land and buildings), thus providing greater opportunities for tax avoidance through depreciation than sectors with lower fixed assets (e.g., the services sector). Consequently, the strong connection between capital intensity and tax avoidance is clearer in the property/real estate industry.

Inventory Intensity is a measure that describes the proportion of investment that a company invests in its inventory, which is used to measure the value of inventory invested in the company (Maulana et al., 2022). Companies with high inventory levels require large costs to manage that inventory (Nisa & Fitriyah, 2023). High inventory intensity levels are typically associated with lower profits, resulting in a lower tax expense. This reduces managers motivation to implement tax-aggressive strategies (Adnan & Haq, 2025). Khayati et al. (2024) found that tax avoidance is influenced by inventory intensity as stated Maulana et al. (2022). Companies with large inventories will require substantial costs to manage these inventories (Fazilah et al., 2024). Due to the company's extensive inventory capacity, the expenses needed for upkeep and storage that inventory also increase. The company's profits will decline due to these maintenance and storage costs, leading to a lower tax liability (Fazilah et al., 2024). But it is not relevant to the research Kaloko et al. (2025), Firliana & Yanto (2024), Ghani & Sari (2023), Ramadhani et al. (2024), and Komalasari & Suharna (2024) which states that tax avoidance is not influenced by inventory intensity. This is likely because companies with large inventories face pressure from principals to report higher profits to maintain investor confidence. In the property sector, inventories typically consist of land and development projects, which are significant in value and subject to revenue recognition. This enables management to control when expenses are recognized, highlighting the impact of inventory levels on tax avoidance.

Leverage is a ratio that shows how well a company's debt can support its assets, both in the short and long term (Khayati et al., 2024). High leverage can reduce a company's profits because the income the company receives must be used to pay the interest on its debts. Therefore, the interest expense on this debt can create an opportunity for tax aggressiveness (Adira & Tanjung, 2025). Ghani & Sari (2023), Pakpahan et al. (2024), and Khaerany et al. (2024) showed that leverage affects tax avoidance but is not relevant to that expressed by Falefi & Istanti (2024), Zulfa et al. (2025), and Nisa & Fitriyah (2023) regarding his research, namely that tax avoidance is not affected by leverage. This may be explained by the fact that not all debt carries significant interest charges (such as short-term, low-yield debt) or by regulations that limit the tax-deductibility of interest charges (thin capitalization rules). In the property sector, leverage is often used to finance large projects, so interest on debt tends to be significant, further confirms the positive relationship between leverage and tax avoidance. This difference may be influenced by each company's debt policy.

Based on the previously mentioned context, the author will conduct a study entitled "Tax Avoidance Analysis Through Capital Intensity, Inventory Intensity, and Leverage," that analyzes property and real estate firms traded on the Indonesia Stock Exchange from 2021 through 2024. This research seeks to determine how capital intensity, inventory intensity, and leverage influence tax avoidance among property and real estate firms listed on the Indonesia

Stock Exchange from 2021 to 2024. The research focused on the property and real estate sector because of its significant impact on the country's tax revenue. The advantage of this research is to provide investors with information about investments that demonstrate seriousness in fulfilling tax obligations, as well as how company management can fulfill its obligations, both long-term and short-term, by financing company assets and utilizing fixed assets and inventory, while still meeting the company's tax obligations.

2. Literature Review

Agency Theory

Agency theory investigates the connection between owners and managers. This theory suggests that a conflict of interest emerges between the agent and the principal because both parties are only influenced by their personal interests (Jensen & Meckling, 1976). According to Jensen & Meckling (1976) principals can monitor agents by providing incentives that motivate them to carry out their duties and prevent potential conflicts. Providing incentives to management can result in agency costs, that the board of directors is tasked with deciding the suitable method to minimize these costs (Jensen & Meckling, 1976). The agency theory perspective expects that a company's performance will be high if it is able to minimize costs and increase efficiency. Agency theory also notes that conflict can arise among members of an organization. Therefore, implementing effective management within organizations and businesses is crucial to reducing the potential for conflict that could threaten organizational stability (Bakti & Triyono, 2022).

The principal denotes the shareholders, whereas the agent is the management entrusted with the duty to oversee the company (Maulana et al., 2022). Principals and agents have different interests that can impact various aspects of a company's performance, including its tax policy. The self-assessment system, which is the implementation of tax regulations in Indonesia, empowers taxpayers to compute and submit their taxes directly to the government (Syach & Witono, 2024). Principals desire long-term growth in company value, while management often focuses on short-term performance. In the context of taxation, management tends to reduce the tax burden to increase reported net income, resulting in higher bonuses or profit-based incentives. This phenomenon creates agency costs, one form of which is tax avoidance practices in an effort to reduce tax liabilities.

Tax Avoidance

The act of managing actions to evade the adverse effects of taxes is known as tax avoidance. Tax avoidance is a legitimate attempt by individuals or tax entities to reduce their tax obligations, provided that the tax avoidance does not violate existing tax regulations (Rahardja & Ngadiman, 2024). Tax avoidance is included in tax aggressiveness. The literature indicates that tax avoidance is influenced by both internal variables (capital composition, fixed asset intensity, inventory policy) and external variables (tax regulations, level of fiscal oversight). Companies that are more flexible in recording costs and implementing accounting techniques tend to exhibit higher levels of tax avoidance. When management and shareholders do not have similar goals, tax aggression can arise and taxes are seen as a heavy expense that can reduce company profits, while the government views taxes as a means to increase state revenue (Khayati et al., 2024).

The Effect of Capital Intensity on Tax Avoidance

Capital intensity pertains to a firm's investment actions connected to capital distribution concerning fixed assets and inventory. This ratio of capital intensity indicates how well the company utilizes its assets to produce sales (Syach & Witono, 2024). Agency theory explains that there is a difference in profits between management (agent) and shareholders (principals). Management's focus is on improving company performance to achieve desired returns. In this context, businesses can employ fixed asset depreciation as a method to lower their tax liabilities (Maulana et al., 2022). A company's high capital intensity means a higher ratio of fixed assets to total assets, and a higher level of tax aggressiveness. With higher capital intensity, the company's likelihood of utilizing asset depreciation to reduce taxable income also increases, reflecting more intensive tax avoidance behavior. Syach & Witono (2024), Adnan & Haq (2025), Adira & Tanjung (2025), Komalasari & Suharna (2024), and Nabilah & Soedaryono (2024) It is said that the capital intensity variable has an effect on tax avoidance.
H1: Capital Intensity has a positive effect on tax avoidance.

The Effect of Inventory Intensity on Tax Avoidance

Inventory Intensity acts as an indicator that provides insight into a company's dedication to inventory investment. A bigger inventory leads to increased expenses for storage and maintenance. This relates to agency theory: larger assets increase the risk of fiscal oversight, and therefore, the principal will tighten monitoring to prevent tax manipulation. Elevated expenses will lower the firm's earnings and diminish the taxes owed (Komalasari & Suharna, 2024). An increase in inventory in a company results in higher costs, resulting in lower reported profits and reduced tax payments. This situation limits a company's opportunities for tax avoidance (Firliana & Yanto, 2024). Study Maulana et al. (2022), Khayati et al. (2024), and Alif Videya & Irawati (2022) discovered that Inventory intensity has a positive effect on tax avoidance, indicating that as inventory intensity increases, tax aggressiveness also rises used by company management.

H2: Inventory intensity has a positive effect on tax avoidance.

The Effect of Leverage on Tax Avoidance

Leverage is a metric employed to evaluate the proportion of a company's assets financed through debt. In other words, leverage is a comparison that shows how much debt it needs to pay for the assets it owns (Zulfa et al., 2025). When a company faces high costs, these costs can reduce taxable income, resulting in lower tax payments. Based on agency theory, agents have the potential to engage in tax aggressiveness by increasing the company's costs through the use of debt or leverage to fulfill the principal's objective of lowering the company's tax expense. Therefore, leverage can be a strategy used by agents or managers to engage in tax aggressiveness (Adira & Tanjung, 2025).

Companies that use leverage aim to generate profits that exceed fixed costs. However, increased leverage also increases the interest expense on debt, ultimately reducing corporate profits. Therefore, companies tend to use high leverage ratios as a tactic for tax avoidance (Rasya & Ratnawati, 2023). The findings of earlier studies examined by Pakpahan et al. (2024), Nabilah & Soedaryono (2024), Setiawan (2024), Adira & Tanjung (2025), and Rasya & Ratnawati (2023) results in a positive influence of leverage on tax aggressiveness, which defines that the greater the degree of leverage a firm holds, the more likely the firm is to adopt aggressive tax strategies.

H3: Leverage has a positive effect on tax avoidance.

3. Proposed Method

The research method used is quantitative. The objective of this study is to analyze the impact of capital intensity, inventory intensity, and leverage on property and real estate companies listed on the Indonesia Stock Exchange (IDX) between 2021 and 2024. The quantitative method applied comes from the site www.idx.co.id and the official websites of all companies in the property and real estate sector, employing secondary information through the annual financial statements of each company.

Table 2. Sampling Criteria

No	Criteria	Amount
1	Property and real estate sector companies listed on the IDX in 2021-2024	372
2	Property and real estate sector companies that did not report financial reports to the IDX for the 2021-2024 period	(51)
3	Companies in the property and real estate sector that incurred losses during the observation year	(112)
4	Companies in the property and real estate sector that do not participate in tax avoidance	(19)
5	Property and real estate sector companies that do not provide complete information regarding the variable indicators used	(51)
6	Data affected by outliers	(54)
	Total	**85**

Source: Processed data, 2025

This study collected samples from all property and real estate sectors listed on the Indonesia Stock Exchange (IDX) during the period 2021 to 2024. The researcher employed a purposive sampling method to collect the sample. Of the 372 companies in the population, only 85 were part of the sample. The process of gathering data utilized documentation and a review of literature.

The dependent variable focused on in this study is tax avoidance. The independent variables include capital intensity, inventory intensity, and leverage. Each variable in this study has its own operational definition, as follows:

Tax Avoidance is the extent to which a company seeks to reduce taxable income through the implementation of certain tax strategies. These strategies can include tax avoidance or tax evasion (Adnan & Haq, 2025). According to Maulana et al. (2022) proxy of tax avoidance using the Effective Tax Rate (ETR) comparison.

$$ETR = \frac{\text{Current Income Tax Expense}}{\text{Profit before tax}}$$

Capital intensity maintains the company's total fixed assets, representing a form of capital utilized in its operations (Ramadhani et al., 2024). According to Rosadani & Wulandari (2023) the proxy for capital intensity in this study uses a ratio that compares total net fixed assets with total assets.

$$\text{Capital Intensity} = \frac{\text{Total Net Fixed Assets}}{\text{Total Assets}}$$

Inventory Intensity shows the relationship between the total amount of inventory in a company and the company's total asset holdings. The greater this ratio, the larger the portion of asset allocation to inventory (Adnan & Haq, 2025). The inventory intensity ratio is determined by the total inventory divided by total assets (Ghani & Sari, 2023).

$$\text{Inventory Intensity} = \frac{\text{Total Inventorry}}{\text{Total Assets}}$$

Leverage refers to the amount of debt utilized by the company for its financing (Maulana et al., 2022). The financial ratio used to assess a company's debt is DER (Debt to Total Equity Ratio). The ratio used to calculate DER is the company's total debt divided by its total equity (Zulfa et al., 2025).

$$\text{Leverage} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

Next, to determine the relationship between the independent and dependent variables, testing was conducted using the Multiple Linear Regression Analysis method. The data obtained was then arranged in a table format, using SPSS version 27 to process the data. In this study, the formula used in the multiple regression analysis is as follows:

$Y = a + b1X1 + b2X2 + b3X3$

Information:

a = Constant

b = Regression coefficient of independent variable

Y = Tax avoidance

X1 = Capital intensity

X2 = Inventory intensity

X3 = Leverage

4. Results and Discussion

Descriptive Statistic Test

The results of the descriptive statistic test on the data:

Table 3. Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Capital_Intensity_X1	85	.00049	.14818	.04591	.03587
Inventory_Intensity_X2	85	.00037	.83553	.34379	.23917
Leverage_X3	85	.00110	1.29501	.46613	.33779
Tax Avoidance_Y	85	.00000	.18000	.07423	.05824
Valid N (listwise)	85				

Source: Data processing using SPSS 27, 2025

As shown in Table 3, 85 data (N) were included in this study, with three independent variables: capital intensity (X1), inventory intensity (X2), and leverage (X3), and tax avoidance (Y) as the dependent variable. The average values for capital intensity, inventory intensity, and leverage exceed their standard deviations. Therefore, it can be determined that the data shown is consistent/stable.

Classic Assumption Test

The results of the classic assumption test on the data:

Table 4. Classic Assumption Test

No	Assumption	Criteria	Results	Information
1	Normality	One-Sample Kolmogorov-Smirnov	Unstandardized Residual Sig 0.088	Qualified
2	Autocorrelation	-2<DW<2	-2 < 0.937 < 2	Qualified
3	Multicollinearity	Tolerance > 0.10; VIF < 10	X1: Tolerance 0.992; VIF 1.008 X2: Tolerance 0.884; VIF 1.132 X3: Tolerance 0.888; VIF 1.126	Qualified
4	Heteroskedasticity	Park Test sig > 0.05	X1 Sig 0.654 X2 Sig 0.612 X3 Sig 0.387	Qualified

Source: Data processing using SPSS 27, 2025

The statistical tests in Table 4 include normality tests using One-Sample Kolmogorov-Smirnov method, autocorrelation tests using Durbin Watson standard, and multicollinearity tests based on the criteria of Tolerance value > 0.10 and VIF < 10, and the heteroscedasticity test employs the Park test, showing results that suggest further testing of the data is possible as it adheres to the classic assumption requirements.

Multiple Linear Regression Test

The outcomes of the multiple linear regression analysis shown in Table 5:

Table 5. Multiple Linear Regression Test

Coefficients[a]				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	.010	.013	
	Capital_Intensity_X1	.542	.156	.334
	Inventory_Intensity_X2	.062	.025	.257
	Leverage_X3	.039	.018	.224

a. Dependent Variable: Tax Avoidance Y

Y= a + b1X1 + b2X2 + b3X3

Y= 0.10 +0.542 X1 + 0.062 X2 + 0.039 X3

Source: Data processing using SPSS 27, 2025

Model and Hypothesis Test

The outcomes of the model and hypothesis analysis on the data:

Table 6. Model and Hypothesis Test

Model Test	Results	Conclusion
Anova	Sig. 0.000	Sig. value 0.000 < 0.05, then the next test can be continued.
Adjusted R. Square	0.228	Up to 22.8% of capital intensity, inventory intensity, and leverage can affect tax avoidance, while the other 77.2% is determined by different factors.
Hypothesis Test	**Sig**	**Conclusion**
Capital Intensity - Tax Avoidance	0.001	H1: Has a significant positive effect
Inventory Intensity - Tax Avoidance	0.014	H2: Has a significant positive effect
Leverage - Tax Avoidance	0.031	H3: Has a significant positive effect

Source: Data processing using SPSS 27, 2025

The results of data processing in Table 6 show the model test in ANOVA and hypothesis test which show the influence of capital intensity, inventory intensity, and leverage on tax avoidance. The low R^2 value (22.8%), shows that there are various other factors that play a role in tax avoidance. With a low R^2 value, the addition of other variables such as profitability, GCG, and transfer pricing may be necessary to have a more significant impact on tax avoidance.

The Effect of Capital Intensity on Tax Avoidance

Table 6 illustrates the importance of the capital intensity variable, with a value of 0.001 < 0.05 and a positive regression coefficient (0.542), meaning that an increase in capital intensity will decrease the ETR value. The decrease in the ETR value reflects a higher level of tax avoidance. Therefore, the greater the capital intensity, the greater the company's tax aggressiveness, thus H1 is accepted. This means that the higher a company's capital intensity (which indicates a significant percentage of fixed assets relative to total assets), the higher the company's inclination to participate in tax avoidance. With increasing capital intensity, companies are more likely to use asset depreciation as a strategy to reduce taxable income, reflecting more aggressive tax avoidance behavior (Adnan & Haq, 2025).

Capital intensity indicates the degree of investment a firm allocates to fixed assets that lead to depreciation expenses. This study demonstrates the effect of capital intensity on tax aggressiveness, as depreciation costs from fixed assets can be used to reduce taxable income. This situation provides an opportunity for management to maximize corporate tax management by implementing a tax-aggressive strategy. Higher depreciation expense of fixed assets results in reduced taxable profit, thus reducing tax liabilities, even though the stability of the company's profitability. Capital intensity indicates the proportion of a company's investment in fixed assets, and a higher level of capital intensity leads to a larger amount of depreciation reported in the financial statements. Furthermore, companies with high capital intensity generally have broader access to knowledge and resources that enable them to better navigate tax regulations, thus more easily implementing more efficient tax avoidance strategies.

From an accounting perspective, capital intensity serves as a basis for businesses to implement as a tactic for tax avoidance. Empirical data indicates that with increased capital intensity, the ETR generally decreases because large depreciation reduces taxable profit and ultimately lowers the effective tax rate payable. In other words, the positive impact of capital intensity on tax avoidance suggests that firms with a significant proportion of fixed assets are more capable of practicing tax avoidance, typically shown by a reduced ETR. If capital intensity is high, the depreciation expense is also large, resulting in a smaller taxable profit, resulting in a low ETR and a high level of tax avoidance. ETR serves as an indicator to assess how effective capital intensity is in reducing a company's tax expense through tax avoidance strategies. The stronger the positive effect of capital intensity, the more successful the company is in utilizing fixed assets to lower its effective tax rate.

According to agency theory, a conflict arises between the interests of company owners and those of management. Management's task is to improve company performance, one way of doing this is by utilizing amortization of fixed assets to decrease the tax expense. The more assets a company owns, the greater the depreciation, which can reduce its profits. This decrease in profits automatically reduces the tax expense. Ultimately, a company's primary goal is to maximize profits while reducing, or even eliminating, its tax obligations (Syach & Witono, 2024). The findings of this study align with agency theory, which asserts that a contract exists between the party granting the power of attorney and the party receiving the power of attorney, or management, to carry out tasks in the interests of the grantor. Management's interest is to obtain the desired compensation by improving company performance. In this context, management can utilize fixed asset depreciation as a means to reduce the company's tax liability. Therefore, a higher proportion of fixed assets and depreciation expenses held by a company, have a result in a lower effective tax rate (ETR). Companies with high fixed assets are usually more active in engaging in tax aggressiveness (Maulana et al., 2022). This study is in accordance with research Nauli Sipayung et al. (2023), Ghina et al. (2024), Ghani & Sari (2023), and Caroline & Fajriana (2023) that indicates tax avoidance is affected by capital intensity.

The Effect of Inventory Intensity on Tax Avoidance

Table 6 shows the significance of the inventory intensity variable, with a value of 0.014 < 0.05 and a positive regression coefficient (0.062), meaning that an increase in inventory intensity will decrease the ETR value. A drop in the ETR value signifies increased tax avoidance. A higher inventory intensity correlates with increased tax aggressiveness in the company, so H2 is accepted. Companies with high inventory intensity levels typically face significant storage and maintenance costs, as well as the risk of inventory losses. These costs can be recorded in accounting as a reduction in pre-tax profit. With the decrease in profit due to these inventory-related expenses, the tax payable is lower. ETR, as the ratio of tax expense to pre-tax profit, becomes lower as taxable profit and taxes paid decrease. A low ETR value indicates high tax aggressiveness, as the company is able to reduce its tax expense through inventory cost management. Inventory intensity positively influences tax avoidance as it allows companies to leverage the flexibility of recording inventory expenses to minimize taxable income.

A company's tax expense can decrease with higher inventory levels. This occurs due to the emergence of various costs associated with that inventory. These costs will decrease the company's profit, consequently lowering the tax payable, leading to a decreased ETR. This low effective tax rate indicates a significant degree of corporate tax aggressiveness. This suggests that with a rise in a company's inventory intensity, its tax aggressiveness also escalates. This finding aligns with agency theory, where management is motivated to obtain expected compensation by improving company performance. Therefore, managers tend to allocate unused funds to investments. The presence of inventory will incur storage and maintenance costs. As these costs increase, the company's profits will automatically decrease, which in turn will lead to a lower corporate tax expense. The lower a company's profits, the lower the tax payable (Maulana et al., 2022). This research is in line with research Maulana et al. (2022) and Khayati et al. (2024) which states that tax avoidance has a positive effect on inventory intensity.

The Effect of Leverage on Tax Avoidance

Table 6 shows significance of the leverage, with a value of 0.031 < 0.05 and a positive regression coefficient (0.039), meaning that increasing leverage will decrease the ETR value. A decreasing ETR value indicates greater tax avoidance. Therefore, the greater the leverage, the more aggressive the company's tax strategies, thus H3 is accepted. This means that the more debt a company uses to finance its operations, the greater the interest expense it must pay as a result of the loan, which will subsequently affect the reduction in the company's tax expense (Setiawan, 2024).

Leverage positively and significantly influences tax aggressiveness, reflecting that a company is effectively using debt in its operations. The higher the leverage, the more debt a company has, which increases interest expenses and reduces the pre-tax profit the company earns. With the decrease in taxable profit due to high interest expenses, the company's tax liability decreases. ETR, defined as the proportion of taxes paid to pre-tax profit, will decline because of the lowered tax expense. A lower ETR reflects that that the company pays comparatively less tax on the profits earned, indicating a high level of tax aggressiveness. Based on agency theory, there is a difference in interests between the principal and the agent, where the agent has the potential to carry out tax aggression. by increasing the company's expense through the use of debt or leverage, in order to achieve the principal's goal of reducing the company's tax expense. Therefore, leverage is one tool that can be used by agents or managers to implement a tax aggressive strategy. A high level of company leverage reflects the large amount of debt it has, which causes an increase in the interest expense it must pay. This study reveals that the level of leverage can be used as a means of implementing tax aggressiveness, because the interest on the debt plays a role in reducing taxable income so to ensure the tax expense that the company is required to fulfill becomes smaller (Adira & Tanjung, 2025). This study aligns with previous research Pakpahan et al. (2024), Ghani & Sari (2023), Khaerany et al. (2024), Nabilah & Soedaryono (2024), Adira & Tanjung (2025), and Setiawan (2024).

5. Conclusions

The research findings indicate that a company's capital intensity positively affects tax avoidance. The greater the capital intensity, the greater the potential for a company to participate in tax avoidance. Similarly, Inventory intensity positively impacts tax avoidance, indicating that as a company's inventory intensity increases, so does its tax aggressiveness. Furthermore, leverage also has a positive impact on tax avoidance, where high leverage reflects the company's large amount of debt, thus increasing interest expenses as a tool in implementing tax aggressiveness strategies.

The findings of this study indicate that increased capital intensity, inventory intensity, and leverage could drive companies in the property and real estate sector to adopt more assertive tax avoidance practices. Therefore, management must enhance transparency and adhere to tax regulations to mitigate the risk of penalties and uphold the company's reputation. Furthermore, tax authorities are advised to be more stringent in supervising companies with these characteristics to minimize tax avoidance practices that are detrimental to state revenues. Furthermore, investors are encouraged to consider these ratios as indicators of tax risk when evaluating their investment decisions.

The sample used in this study consisted of companies in the real estate and property sector and the study was conducted over a four-period period, 2021-2024. This study is limited to a four-year period, which prevents it from comprehensively capturing long-term trends. Upcoming researchers are anticipated to explore firms in different industries and lengthen the study duration. The low coefficient of determination of 22.8% also indicates that many other variables influence tax avoidance. Therefore, for further research, it is advisable to substitute the inventory intensity and capital intensity variables with transfer pricing and profitability, which have demonstrated an impact on tax avoidance (Isnaini et al., 2024).

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