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The Effect of Leverage and Capital Intensity on Tax Avoidance (Empirical Study on Primary Consumer Goods Sector Companies Listed on the Indonesia Stock Exchange for the Period 2020–2024)

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ABSTRACT

This study aims to examine the influence of leverage and capital intensity on tax avoidance in companies operating within the primary consumer goods sector listed on the Indonesia Stock Exchange. The research employs a quantitative approach using secondary data obtained from annual financial reports. The sample was selected using a purposive sampling technique based on predetermined criteria. The analysis was conducted using panel data regression with the assistance of EViews software. The findings show that leverage has a significant and positive effect on tax avoidance, indicating that firms with higher debt ratios tend to engage more actively in minimizing their tax burden. Conversely, capital intensity does not have a significant influence on tax avoidance, suggesting that investment in fixed assets does not necessarily correlate with corporate tax-saving behavior. This study provides important insights for both practitioners and regulators in understanding the financial strategies related to tax planning in Indonesia's consumer goods industry.

Keywords:
Leverage, Capital Intensity, Tax Avoidance, Consumer Goods Sector

INTRODUCTION

Tax is a mandatory contribution made by individuals or organizations mandated by law, without receiving direct compensation, for the purpose of national development. In order to increase tax revenue, improvements and refinements of tax regulations in Indonesia must be made. Tax is one of the major sources of income for achieving development. Taxes are collected from citizens, making them obligated to pay them (Firmansyah & Bahri, 2023). Therefore, the role of the community in financing development must continue to be fostered by increasing public awareness of their obligation to pay taxes. According to Law No. 16 of 2009 on general provisions and tax procedures, Article 1, paragraph 1, explains the definition of tax, which is a mandatory contribution to the government made by individuals or legal entities without receiving direct compensation and is used for the state's needs for the greatest prosperity of the people (Sulaeman, 2021).

Tax is one of the largest and most important sources of revenue for Indonesia's economy. From the company's perspective, tax is an expense that can reduce the company's

net profit, leading businesses to attempt to reduce their taxes both legally and illegally, so the company can achieve its profit target. One way to reduce taxes is through tax management via tax avoidance, in a legal and regulated manner. However, tax evasion is illegal and violates tax laws. This leads many taxpayers to use strategies to minimize their tax payments, one of which is tax avoidance (Dayanara et al., 2019).

Tax avoidance is an effort to reduce the tax burden without violating the law. Tax avoidance is a legal way for companies to optimize their tax liabilities by exploiting gaps in the law. The management's actions in tax avoidance aim to minimize, not to conceal, the company's tax obligations. This activity can be risky for companies, as it could harm their reputation in the public eye (Muniroh, 2022).

Tax avoidance is generally differentiated from tax evasion. While both aim to reduce or delay tax payments, tax evasion is clearly illegal, whereas tax avoidance is legal but relies on exploiting loopholes in the tax laws. The reason for tax avoidance in tax evasion cases is that the income of the taxpayer can be used to meet their needs. After fulfilling tax requirements, the obligation to pay taxes to the state is created. This causes a conflict of interest between the taxpayer and the government. Although tax avoidance is legal and permitted by tax laws, as it exploits loopholes in the tax legislation, the government views it as undesirable. In corporate taxation, the burden that needs to be paid can reduce or delay a company's expenses, as its effects contradict the realization of tax revenue and current targets that are not as expected (Ivena, 2022).

Tax avoidance is commonly carried out by corporate taxpayers (companies) because they want to reduce their tax burden to increase profitability and cash flow (Kalbuana, 2020). The practice of tax avoidance is generally carried out by taking advantage of differences in tax regulations that are structured in such a way as to not violate official tax provisions but may violate the economic substance of a business activity (Setiawanta, 2015). Therefore, tax avoidance is a unique and complex issue, because on one hand, taxes do not violate the law, but on the other hand, they are not required by the government (Dewi & Oktaviani, 2021).

A tax avoidance phenomenon in Indonesia occurred in 2019, when the Directorate General of Taxes (DJP) investigated the alleged tax avoidance carried out by PT Adaro Energy Tbk. Adaro was suspected of diverting its revenue and profits overseas to minimize taxes paid to the Indonesian government. Global Witness stated that this was done by selling coal at low prices to Adaro's subsidiary in Singapore, Coltrade Services International, which then resold it at higher prices. Through this company, Global Witness discovered a potential tax payment shortfall of $125 million to the Indonesian government. Global Witness also pointed to the role of tax havens, which allowed Adaro to reduce its tax bill by $14 million annually.

A tax avoidance phenomenon also occurred at PT Indofood Sukses Makmur and PT Indofood CBP Sukses Makmur Tbk, where there were indications of tax avoidance through transfer pricing. Transfer pricing was suspected because PT Indofood Sukses Makmur Tbk's net profit appeared good, recording 1.4 trillion IDR in the first quarter of 2020, while PT Indofood CBP Sukses Makmur Tbk's stock sales declined. From Q1 2019 to Q1 2020, PT Indofood Sukses Makmur Tbk's net profit increased by 4% to 1.4 trillion IDR. In May 2020, according to data from the Indonesia Stock Exchange (IDX), PT Indofood Sukses Makmur Tbk's shares dropped drastically by 6.67% to IDR 5,600/share, and PT Indofood CBP Sukses Makmur's shares fell by 6.98% to IDR 8,325/share. According to Edwin Sebayang, Head of Research at MNC Securities, the stock drop was related to investor reactions to the expensive acquisition of Pinehill Corpora Limited shares. Additionally, Edwin added that the decline was

linked to investor concerns over the potential transfer pricing taking place (https://kumparan.com/). Below are cases of tax avoidance by companies in the primary consumer goods sector in Indonesia from 2020 to 2024:

Table 1. Tax Avoidance Case

Year	Company Name	Tax Avoidance Case	Description
2020	PT Indofood Sukses Makmur Tbk	Tax avoidance through business spin-off	A tax avoidance case by establishing a new company and transferring division assets, reported to cause a state loss of IDR 1.3 billion.
2020	PT Nestle	Tax avoidance via transfer pricing	Detected manipulation to reduce the cost of goods sold and operating expenses; state loss estimated at IDR 800 billion (confirmed in 2020).
2020–2023	Several consumer primary sector companies listed on IDX	Fluctuations in Cash Effective Tax Rate (CETR) indicating potential tax avoidance practices	Examples include companies such as ADES, AISA, BUDI, CAMP, DLTA, FOOD, GOOD, with detailed CETR data analyzed annually.
2021	PT Coca Cola Indonesia Tbk	Alleged tax evasion with underpayment of IDR 49.24 billion	An appeal related to differences in taxable income calculation for the 2002–2006 period, indicating possible tax avoidance.
2020–2024	General (study)	Increase in tax avoidance among consumer primary sector companies during the Covid-19 pandemic	Empirical studies show a significant rise in tax avoidance before and during the Covid-19 pandemic in this sector.

Table 1. illustrates that several primary consumer goods companies, including PT Indofood Sukses Makmur, PT Nestle, and PT Coca Cola Indonesia, have been suspected of engaging in various forms of tax avoidance, resulting in tax losses amounting to billions of rupiah. The increase in tax avoidance during the Covid-19 pandemic is also highlighted as a general phenomenon, reflecting the challenges of tax compliance in this sector under exceptional economic circumstances.

Tax avoidance can be influenced by several factors, including leverage and capital intensity. Leverage refers to the level of debt a company uses to finance its operations. It indicates the level of financial risk, measured by comparing the company's total liabilities with its total assets. The higher the level of debt, the greater the financial risk borne by the company. Leverage serves as a proxy or indicator for making financial decisions within a firm (Dewi & Oktaviani, 2021).

According to Devi and Mahaputra (2021), leverage has a positive effect on tax avoidance, implying that an increase in leverage tends to be followed by an increase in tax

avoidance. Leverage represents the proportion of debt used to finance operational activities, and higher interest expenses can reduce a company's tax burden. This condition allows companies to take advantage of debt to minimize tax liabilities, potentially leading to tax avoidance practices.

Conversely, Dewi and Oktaviani (2021) also found that leverage can negatively affect tax avoidance. This occurs because a higher level of debt increases the interest obligations, thereby reducing pre-tax profits. As pre-tax profits decline, tax payments also decrease. Therefore, an increase in leverage can lead to a reduction in tax avoidance. In such cases, higher debt levels may encourage management to be more prudent in financial reporting, and selective managers tend to avoid involvement in tax avoidance practices (Sari et al., 2021). Apart from leverage, another factor influencing tax avoidance is capital intensity. Capital intensity refers to the extent to which a company allocates its capital to operational activities and fixed asset investments to generate profits. It measures the proportion of a company's resources invested in fixed assets (Kalbuana, 2020).

Wisnu Prasetyo (2022) asserts that capital intensity positively affects tax avoidance, meaning that companies with higher capital intensity tend to engage in greater tax avoidance. Firms with substantial fixed assets incur higher depreciation expenses, which serve as tax-deductible items and thus reduce tax liabilities. In contrast, Marlinda et al. (2020) found that capital intensity has no significant effect on tax avoidance. In this context, investment in fixed assets, such as buildings, land, machinery, and equipment, is primarily intended to support operational activities and enhance production capacity. Higher fixed asset holdings can contribute to improved profitability by enabling companies to expand their production capabilities.

METHODS

This study adopts a quantitative approach to investigate the relationship between leverage, capital intensity, and tax avoidance. A quantitative method is appropriate for testing specific hypotheses using numerical data and statistical tools, allowing the researcher to identify patterns, measure associations, and draw general conclusions based on the empirical evidence. The goal is to provide objective and replicable findings that contribute to the understanding of tax-related behavior in the corporate sector.

The research design used is causal-comparative, which aims to examine the cause-and-effect relationship between independent variables, leverage and capital intensity, and the dependent variable, tax avoidance. By applying this design, the study explores whether changes in a company's financial structure are associated with its tendency to engage in tax avoidance practices. This design does not manipulate variables but observes them as they naturally occur in financial statements.

The population of the study consists of all companies in the primary consumer goods sector listed on the Indonesia Stock Exchange during the period under review. This sector is selected due to its relevance in public consumption and its exposure to both domestic and international fiscal scrutiny. A purposive sampling technique was employed to select companies that met specific criteria, such as consistent financial reporting in Indonesian Rupiah and the availability of complete financial data for each year within the observation window.

Data were collected from secondary sources, primarily annual reports published on the official website of the Indonesia Stock Exchange. These reports contain audited financial

statements that provide the necessary figures to compute the research variables. The data include values for income before tax, income tax expense, total liabilities, shareholders' equity, total assets, and fixed assets, all of which are required to calculate leverage, capital intensity, and effective tax rates.

To measure tax avoidance, this study uses the Effective Tax Rate (ETR), which is calculated by dividing income tax expense by income before tax. A lower ETR suggests a higher degree of tax avoidance. Leverage is measured using the Debt-to-Equity Ratio (DER), reflecting the extent to which a company relies on debt financing. Meanwhile, capital intensity is calculated as the ratio of fixed assets to total assets, indicating the degree of capital investment in long-term operational resources.

The data analysis process includes descriptive statistics to provide an overview of the dataset, including the mean, standard deviation, and distribution of each variable. This step is followed by classical assumption tests to ensure that the data meet the requirements for regression analysis, including tests for normality, multicollinearity, heteroskedasticity, and autocorrelation.

Panel data regression is employed to test the hypotheses, utilizing three model types: common effect, fixed effect, and random effect. Each model is tested and compared using Chow Test, Hausman Test, and Lagrange Multiplier Test to determine the most appropriate estimation method for the data. The final model is then used to analyze the effect of leverage and capital intensity on tax avoidance, both individually and simultaneously.

All statistical procedures were carried out using EViews version twelve. This software provides advanced econometric analysis tools that are particularly useful for time series and panel data. The use of EViews allows the researcher to run regression models, check diagnostic tests, and ensure the reliability of the estimated relationships. The findings derived from this analysis form the foundation for the conclusions and recommendations presented later in the study.

RESULTS AND DISCUSSION

Descriptive Statistics Test

The descriptive statistics test provides an overview of the dataset by presenting values such as the mean, median, standard deviation, variance, maximum, and minimum. This analysis helps in summarizing and understanding the characteristics of each research variable. The descriptive statistics offer clearer insights into the data used in this study. The results of the descriptive analysis are presented as follows.

Table 2. Descriptive Statistics Test Results

Statistic	X1 (Leverage)	X2 (Capital Intensity)	Y (Tax Avoidance)
Mean	0.667033	0.32286	0.220678
Median	0.517	0.306	0.218
Maximum	2.3	0.767	0.313
Minimum	0.072	0.023	0.129
Standard Deviation	0.521792	0.165949	0.034686
Skewness	1.154642	0.534469	0.249764
Kurtosis	4.143684	3.238701	3.758407
Jarque-Bera	33.48072	6.048006	4.157912
Probability	0	0.048606	0.125061
Sum	80.711	39.066	26.702

Sum Sq. Dev.	32.67201	3.304671	0.14437
Observations	121	121	121

Table 2 presents the results of the descriptive analysis with a total of 121 observations, derived from the five-year study period and 25 sampled companies. The main purpose of this test is to assess the quality of the data by comparing the mean and standard deviation. A higher mean relative to the standard deviation indicates better data quality.

Leverage shows a maximum value of 2.300000, a minimum of 0.072000, a mean of 0.667033, and a standard deviation of 0.521792. The highest leverage was recorded in 2021 by PT Tigaraksa Satria Tbk, while the lowest occurred in 2024 at PT Bisi International Tbk.

Capital Intensity has a maximum value of 0.767000, a minimum of 0.023000, a mean of 0.322860, and a standard deviation of 0.165949. The highest capital intensity was observed in 2022 at PT Sariguna Primatirta Tbk, while the lowest occurred in 2020 and 2021 at PT Tigaraksa Satria Tbk.

Tax Avoidance shows a maximum value of 0.313000, a minimum of 0.129000, a mean of 0.220678, and a standard deviation of 0.034686. The highest tax avoidance was found in 2020 at PT Dharma Satya Nusantara Tbk. The lowest values were recorded in 2024 at PT Siantar Top Tbk and in 2020 at PT Triputra Agro Persada Tbk.

Common Effect Model (CEM)

The common effect model assumes that both the intercept and slope remain constant across time and individuals. Any variation in intercepts and slopes is considered to be captured by the error term. The results of the panel data regression using the common effect model in this study are presented below.

Table 3. Common Effect Model (CEM) Results

Variable	Coefficient	Standard Error	t-Statistic	Probability
C (Constant)	0.201796	0.007244	27.8553	0
X1 (Leverage)	0.019351	0.005881	3.290487	0.0013
X2 (Capital Intensity)	0.018504	0.018491	1.000674	0.319

Table 3 shows that the common effect model produced a constant value of 0.201796. The regression coefficient for the X1 variable (Leverage) is 0.019351 with a probability value of 0.0013, indicating a significant positive effect. Meanwhile, the regression coefficient for X2 (Capital Intensity) is 0.018504 with a probability value of 0.3190, suggesting that the effect is not statistically significant.

Fixed Effect Model (FEM)

The fixed effect model assumes that individual differences can be captured through variations in the intercepts. This model is used to address the limitations of the common effect model, which assumes constant intercepts and slopes across all individuals and time periods. Such an assumption is often unrealistic when dealing with panel data. The fixed effect model introduces flexibility by allowing for variation across entities, making it more suitable for capturing firm-specific effects. The regression results of the fixed effect model are presented as follows.

Table 4. Fixed Effect Model (FEM) Results

Variable	Coefficient	Standard Error	t-Statistic	Probability

C (Constant)	0.200973	0.007006	28.68562	0
X1 (Leverage)	0.020019	0.007293	2.74488	0.0073
X2 (Capital Intensity)	0.019672	0.02176	0.90407	0.3683

The regression results using the Fixed Effect Model show that the constant value is 0.200973. The regression coefficient for X1 (Leverage) is 0.020019 with a probability of 0.0073, indicating a significant positive effect. Meanwhile, the regression coefficient for X2 (Capital Intensity) is 0.019672 with a probability of 0.3683, which means the effect is statistically insignificant.

Random Effect Model (REM)

In the random effect model, differences in individual and time characteristics are accounted for through the error term. This method considers two components contributing to the error structure: the individual-specific error, the time-specific error, and the combined error term. The results of the random effect model regression are presented as follows.

Table 5. Random Effect Model (REM) Results

Variable	Coefficient	Standard Error	t-Statistic	Probability
C (Constant)	0.201679	0.007941	25.39596	0
X1 (Leverage)	0.019529	0.00626	3.119772	0.0023
X2 (Capital Intensity)	0.019519	0.019077	1.023166	0.3083

Table 5 shows that the random effect model yields a constant value of 0.201679. The regression coefficient for X1 (Leverage) is 0.019529 with a probability value of 0.0023, indicating a significant positive effect. Meanwhile, the regression coefficient for X2 (Capital Intensity) is 0.019519 with a probability value of 0.3083, which is statistically insignificant.

Selection of Panel Data Regression Model

To determine the most appropriate model for panel data analysis among the three alternatives, common effect model, fixed effect model, and random effect model—a series of diagnostic tests must be conducted. These tests help identify the model that best fits the data structure.

Chow Test

The Chow test is used to decide between the common effect and fixed effect models. The decision is based on the probability value of the cross-section Chi-square. If the probability value is less than the significance level ($\alpha = 0.05$), then the fixed effect model is chosen. Otherwise, if the probability exceeds 0.05, the common effect model is preferred. The result of the Chow test is presented below.

Table 6. Chow Test Results

Effects Test	Statistic	Degrees of Freedom (d.f.)	Probability
Cross-section F	4.08669	(24, 94)	0
Cross-section Chi-square	86.46903	24	0

The purpose of the Chow test is to determine the most appropriate regression model between the common effect and fixed effect models. Based on Table 4.8, the probability value for the cross-section F is 0.0000, which is less than the significance level of 0.05. This result indicates that the fixed effect model is more suitable for the data and should be used for further analysis.

Hausman Test

The Hausman test is a statistical test used to decide whether the fixed effect model or the random effect model is more appropriate. This test is conducted only if the fixed effect model is selected from the Chow test. If the common effect model is selected, there is no need to proceed with the Hausman test. The decision is based on the probability value of the cross-section random. If the probability is less than 0.05, the fixed effect model is preferred; otherwise, the random effect model is chosen. The result of the Hausman test is shown below.

Table 7. Hausman Test Results

Test Summary	Chi-Square Statistic	Chi-Square d.f.	Probability
Cross-section random	0.042439	2	0.979

The Hausman test aims to choose the most appropriate regression model between the random effect and fixed effect models. Based on Table 4.9, the probability value for the cross-section random test is 0.9790, which is greater than the significance level of 0.05. This indicates that the random effect model is more suitable for use in this study.

Lagrange Multiplier (LM) Test

The Lagrange Multiplier test is the final model selection test used to determine whether the random effect or common effect model is more appropriate for panel data estimation. This test is conducted after the Chow test selects the fixed effect model and the Hausman test favors the random effect model. Interpretation is based on the probability value of the Breusch-Pagan result. If the probability is less than 0.05, the random effect model is preferred. However, if the probability is greater than 0.05, the common effect model should be used. The result of the LM test is shown below.

Table 8. Lagrange Multiplier (LM) Test Results

Test Hypothesis	Cross-section	Time	Both
Breusch-Pagan	35.91941(0.0000)	0.818849(0.3655)	36.73826(0.0000)

The Lagrange Multiplier (LM) test is conducted to determine the most appropriate estimation model between the random effect model and the fixed effect model. Based on Table 8, the Breusch-Pagan probability value is less than the significance level of 0.05, indicating that the random effect model is more suitable for this study. Therefore, the random effect model is selected. The next step is to perform classical assumption tests.

Table 9. Model Specification Test

No	Test Type	Models Compared	Selected Model
1	Chow Test	CEM vs. FEM	FEM (Fixed Effect Model)
2	Hausman Test	FEM vs. REM	REM (Random Effect Model)
3	Lagrange Multiplier Test	REM vs. CEM	REM (Random Effect Model)

Classical Assumption Test (Summary and Translation)

The classical assumption test is a statistical requirement that must be met when using multiple linear regression analysis with the Ordinary Least Square (OLS) method. It is used to examine whether the data fulfills assumptions of residual normality, multicollinearity, heteroscedasticity, and autocorrelation.

Normality Test

The normality test aims to determine whether the residuals (disturbance terms) in the regression model are normally distributed (Ghozali & Ratmono, 2018:145). To assess this, the Jarque-Bera (JB) test is used, which is particularly suitable for large samples. Decision Criteria:

1. If the probability value is greater than 0.05, the residuals are normally distributed.
2. If the probability value is less than 0.05, the residuals are not normally distributed.

The following section presents the result of the normality test using the Jarque-Bera method.

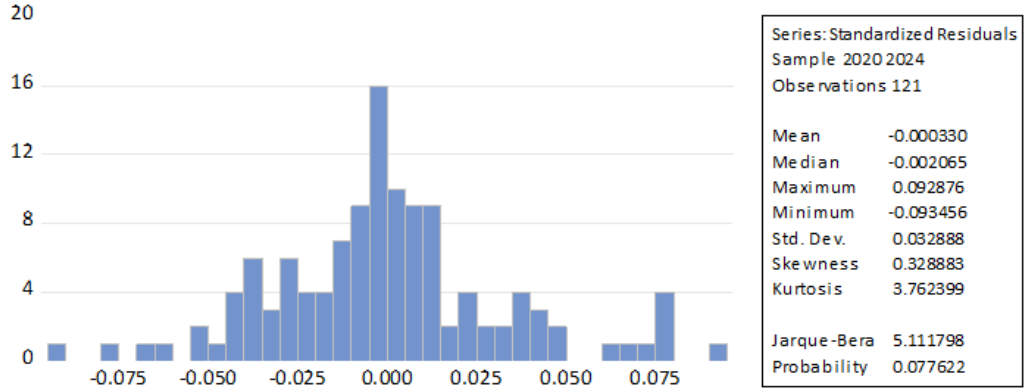

Figure 1. Normality Test Results

Based on Figure 1, the normality test conducted on 121 data observations yielded a Jarque-Bera value of 5.111798 with a probability of 0.077622. Since the probability value is greater than the significance level of 0.05 (0.077622 > 0.05), it can be concluded that the residuals are normally distributed. Therefore, the assumption of normality is fulfilled in this study.

Multicollinearity Test

The multicollinearity test is performed using the Variance Inflation Factor (VIF). The purpose of this test is to detect whether there is a high correlation among the independent variables in the regression model, which may affect the stability and accuracy of the coefficient estimates. The test results are presented as follows:

Table 10. Multicollinearity Test Results

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3.66E-05	4.024895	NA
X1	2.54E-05	2.290649	1.00131
X2	0.000163	2.848507	1.00131

Based on the multicollinearity test results, the centered VIF value for variable X1 is 1.001310, and for variable X2 is also 1.001310. These values are far below the commonly accepted threshold of 10 and even below more conservative benchmarks. This indicates no serious multicollinearity symptoms among the independent variables in the regression model.

The low VIF values demonstrate that X1 and X2 are not highly correlated and each contributes unique information in explaining the dependent variable. Therefore, the regression model is free from multicollinearity issues, making the coefficient estimations stable and interpretable.

Heteroskedasticity Test

The heteroskedasticity test aims to identify whether the variance of residuals in the regression model is consistent across observations. If residual deviations are constant, the condition is known as homoskedasticity; if they vary, it is called heteroskedasticity.

Several methods can be used to test for heteroskedasticity, including Park Test, Glejser Test, regression plots, and Spearman's rank correlation. In this study, the Glejser Test is employed by regressing independent variables against the absolute residuals. If the significance value of this regression exceeds 0.05, it can be concluded that there is no heteroskedasticity problem.

Table 11. Heteroskedasticity Test Results

Test Statistic	Value	Probability
F-statistic	0.028021	Prob. F (2,118) = 0.9724
Obs*R-squared	0.057439	Prob. Chi-Square (2) = 0.9717
Scaled Explained SS	0.072716	Prob. Chi-Square (2) = 0.9643

Based on the results above, it can be concluded that there is no heteroscedasticity problem. This is evidenced by the p-value of the Chi-Square test on Obs*R-squared, which is 0.9717, a value greater than the significance level of 0.05. Therefore, the residuals are considered homoscedastic, meaning the data used in this study is free from heteroscedasticity issues.

Autocorrelation Test

The autocorrelation test aims to determine whether there is a correlation between the error term in the regression model at time t and the error term at time t-1 (the previous period). The result of this test is shown in the following table.

Table 12. Autocorrelation Test Results

Statistic	Value	Statistic	Value
R-squared	0.241251	Mean dependent variable	1.44E-17
Adjusted R-squared	0.215087	Standard deviation (S.D.) of dependent variable	0.032903
Standard Error of Regression	0.029151	Akaike Information Criterion	-4.192234
Sum of Squared Residuals	0.098572	Schwarz Criterion	-4.076706
Log Likelihood	258.6302	Hannan-Quinn Criterion	-4.145314
F-statistic	9.220798	Durbin-Watson Statistic	1.999939

Prob(F-statistic)	0.000002

Based on Table 12, the Durbin-Watson (DW) value obtained from the regression model is 1.999939. This value is compared to the DW critical values from the Durbin-Watson table using the number of observations (n = 121), number of independent variables (k = 2), and a significance level of 5%. From the DW table:
Lower bound (dL) = 1.6699
Upper bound (dU) = 1.7370
4 - dU = 2.2630
4 - dL = 2.3301

The DW value lies between 4 - dU and 4 - dL, i.e., 2.2630 < 1.999939 < 2.3301. Based on this result, it can be concluded that no autocorrelation is present in the regression model.

Panel Data Regression Analysis

Multiple linear regression analysis is used to examine the effect of two or more independent (explanatory) variables on a single dependent variable, observed across several sectors over a specific period. The following presents the results of the panel data regression analysis conducted in this study.

Table 13. Panel Data Regression Analysis Results

Statistic	Value
Root MSE	0.025421
Mean dependent variable	0.103657
Standard deviation (dependent variable)	0.027928
Sum squared residual	0.078194
Durbin-Watson statistic	2.00136
R-squared	0.111824
Adjusted R-squared	0.096771
Standard error of regression	0.025742
F-statistic	7.428308
Probability (F-statistic)	0.000915

Based on Table 13, the adjusted R-squared value is 0.096771, indicating that approximately nine percent of the variation in the dependent variable, tax avoidance, can be explained by the independent variables leverage and capital intensity. The remaining ninety-one percent is attributable to other factors not examined in this study.

Hypothesis Testing

Simultaneous Test (F-Test)

The F-test was employed to assess whether the independent variables, when considered together, have a statistically significant influence on the dependent variable. The result of the F-test is presented in the following section.

Table 14. Simultaneous Test Results

Statistic	Value
Root MSE	0.025421
Mean dependent variable	0.103657
Standard deviation (dependent variable)	0.027928
Sum squared residual	0.078194
Durbin-Watson statistic	2.00136
R-squared	0.111824
Adjusted R-squared	0.096771
Standard error of regression	0.025742
F-statistic	7.428308
Probability (F-statistic)	0.000915

Based on Table 14, the F-table value must be calculated first before making a decision regarding the F-test. Using the formulas:
Df1 = (k - 1) = 2
Df2 = (n - k) = 118. With a significance level of 0.05, the F-table value is determined to be 3.07.

The results show that the F-statistic value is 7.428308, which is greater than the F-table value of 3.07. Additionally, the p-value is 0.000915, which is less than 0.05. These results indicate that Leverage and Capital Intensity simultaneously have a significant positive effect on Tax Avoidance.

Partial Test (t-Test)

The t-test is conducted to examine whether each independent variable individually has a significant influence on the dependent variable. The test is carried out by comparing the t-statistic with the critical value from the t-distribution table.

Table 15. Partial Test Results

Variable	Coefficient	Standard Error	t-Statistic	Probability (p-value)
C (Constant)	0.201679	0.007941	25.39596	0
X1 (Leverage)	0.019529	0.00626	3.119772	0.0023
X2 (Capital Intensity)	0.019519	0.019077	1.023166	0.3083

Based on the partial hypothesis testing shown in Table 14, the conclusions are as follows:

1. Leverage has a probability value of 0.0023, which is less than 0.05. This indicates that leverage has a significant partial effect on tax avoidance. Therefore, the null hypothesis (H0) is accepted, meaning leverage significantly influences tax avoidance.
2. Capital Intensity has a probability value of 0.3083, which is greater than 0.05. This indicates that capital intensity does not have a significant effect on tax avoidance. Therefore, the alternative hypothesis (H1) is rejected, meaning capital intensity does not influence tax avoidance.

Research Discussion

The Influence of Leverage and Capital Intensity on Tax Avoidance

The results show that leverage and capital intensity together significantly affect tax avoidance. This is proven by the F-statistic value being higher than the F-table value and a p-value lower than the significance threshold. Leverage reflects a company's reliance on debt

financing, which allows interest expenses to reduce taxable income. Capital intensity, which refers to fixed assets, may also provide tax deductions through depreciation. However, in this study, capital intensity was not found to be significant. These findings align with Prasetyo & Arif (2022) regarding leverage and with Marlinda et al. (2020) regarding capital intensity. Based on agency theory, tax avoidance may result from conflicts between managers and owners, where managers may engage in tax strategies to enhance firm profits and personal gains.

The Influence of Leverage on Tax Avoidance

Partial testing shows that leverage significantly influences tax avoidance in the primary consumer goods sector on the IDX for the 2020–2024 period. A higher level of leverage increases the company's tendency to avoid taxes to reduce financial pressure from debt. This supports agency theory, which suggests that managers may engage in tax avoidance to free up cash flows and reduce tax burdens. This result is consistent with the findings of Devi & Mahaputra (2021), who found that higher leverage correlates with greater tax avoidance behavior.

The Influence of Capital Intensity on Tax Avoidance

Capital intensity is found to have no significant effect on tax avoidance. Although fixed assets can provide tax deductions through depreciation, in this case, companies seem to invest in such assets mainly to support operational efficiency rather than to avoid taxes. This finding is in line with Marlinda et al. (2020), but contrasts with Kalbuana (2020), who found capital intensity to be significant. The result suggests that firms with high fixed assets prioritize operational performance over tax strategy. In agency theory, this reflects the dynamic where managers, despite having the opportunity for tax savings through depreciation, may prioritize long-term asset use over short-term tax avoidance.

CONCLUSION

This study aims to analyze the influence of leverage and capital intensity on tax avoidance among companies in the primary consumer goods sector listed on the Indonesia Stock Exchange. The findings indicate that leverage and capital intensity, when tested simultaneously, have a significant effect on tax avoidance. However, when examined individually, only leverage shows a significant positive effect, while capital intensity does not demonstrate a significant relationship. The significant impact of leverage on tax avoidance supports agency theory, which suggests that managers, acting as agents, may engage in tax minimization strategies to enhance the firm's financial position or personal benefits. The use of debt creates interest expenses that reduce taxable income, thus encouraging tax-saving behavior. In contrast, capital intensity, which refers to the proportion of investment in fixed assets, appears to be used more for operational support rather than as a tax avoidance strategy, as shown by its insignificant effect. These findings reinforce the notion that not all financial strategies aimed at managing operational assets directly influence tax behavior. The study contributes to the understanding of corporate tax planning and underscores the importance of monitoring leverage as a key determinant of tax avoidance practices in the Indonesian corporate context.

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