Journal of Management and Administration Provision
Vol. 4, Issue 2, 2024
Page 117-122
DOI: https://doi.org/10.55885/jmap.v4i2.360

The Influence of Profitability, Leverage, Company Size, and Fixed Asset Intensity on Tax Avoidance in the Consumer Goods Industry

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Abstract. *This research aims to analyze the influence of profitability, leverage, and asset intensity on tax avoidance. This research includes quantitative research using secondary data obtained from company annual reports. The population of this research is companies in the consumer goods and industrial sector listed on the Indonesia Stock Exchange (BEI) in 2020-2022. A total of 103 samples were selected using the purposive sampling method and analyzed using multiple linear regression. The research results show that profitability, leverage, and company size affect tax avoidance, while fixed asset intensity does not affect tax avoidance. The limitations of this research are still limited to the goods industry and consumption sectors.*

Keywords: *Tax Avoidance, Determinant of Tax Avoidance, Consumer Goods Industry*

Received: June, 2024 Received in Revised: July 21, 2024 Accepted: August, 19 2024

INTRODUCTION

The global economic development throughout 2022 has continued to face various challenges stemming from the COVID-19 pandemic, which has not yet fully ended or recovered. This will impact both monetary and fiscal policies in various countries, including Indonesia. The National Medium-Term Development Plan for 2020-2024 aims to achieve the goals of Indonesia Maju 2045, supported by significant funding sources, among which is tax revenue. According to data from the Ministry of Finance of the Republic of Indonesia, Indonesia's tax revenue remains low compared to other countries. The tax ratio in Indonesia was 8.33% in 2020 and increased to 9.11% in 2021, possibly reflecting the beginning of economic recovery due to the pandemic. Taxes serve as a primary source of national revenue in our country, supporting development, as evidenced by over 75% of state revenue coming from the tax sector. Thus, taxes are considered by the state as a critical source of income.

The global economic landscape in 2022 continued to grapple with challenges arising from the COVID-19 pandemic, which has yet to fully subside or allow for a complete recovery. These challenges have had significant implications for monetary and fiscal policies across various nations, including Indonesia. Within this context, the research question guiding this study is: How do Indonesian companies respond to increasing tax rates, particularly in terms of tax planning and avoidance strategies?

The National Medium-Term Development Plan for 2020-2024 aims to achieve the goals of Indonesia Maju 2045, which relies heavily on robust funding sources, particularly tax revenue. Despite this, Indonesia's tax revenue remains relatively low compared to other countries. For instance, the tax ratio was 8.33% in 2020 and slightly increased to 9.11% in 2021, a change that may reflect the initial stages of economic recovery following the pandemic. Given that over 75%

of state revenue comes from taxes, the Indonesian government considers taxes a critical source of income essential for national development.

However, how do companies in Indonesia respond to the existence of taxes that have seen an increase in rates from year to year? Companies as business actors view taxes as an expense that must be incurred to fulfill their tax obligations to the state, which will reduce the net profit of the company for a certain period. The differing perspectives between the government as the tax authority and companies as taxpayers lead to conflicting interests. This conflict arises from the differences in interests between the tax authority and taxpayers, as well as the implementation of a self-assessment system that grants taxpayers the trust to calculate, pay, and report their own tax liabilities (Adhi et al., 2023). This situation creates a tendency for companies to reduce their tax burdens through tax planning. One method companies use for tax planning is to find ways to alleviate their tax burden without violating the law (Mardiasmo, 2018), commonly referred to as tax avoidance.

Tax avoidance practiced by companies is an intriguing topic to discuss year after year across various sectors and countries, influenced by numerous underlying factors. Previous inconsistent studies, alongside the backdrop of the post-COVID-19 pandemic environment, have piqued researchers' interest in conducting in-depth research on tax avoidance in the relatively stable consumer goods and manufacturing sector, as food is a basic human necessity required at all times. Prior research by Ariandiani and Ramantha (2018) indicates that profitability affects tax avoidance, while leverage does not. Additionally, Alfina (2018) asserts that company size impacts tax avoidance, whereas profitability does not. Listiyana et al. (2019) conclude that profitability influences tax avoidance behavior, while leverage and company size do not affect tax avoidance. Research conducted by Mocanu et al. (2021) on companies in Romania reveals that companies with strong financial performance (profitability) and low leverage are more likely to engage in tax avoidance. In 2021, a study by Dewi and Oktaviani (2021) found that asset intensity does not affect tax avoidance, aligning with Nursida et al. (2022), who also noted that fixed asset intensity has no impact on tax avoidance. Mahmudi et al. (2023) state that both profitability and leverage influence tax avoidance. Another study by Putra & Pratami (2024) shows that both leverage and company size affect tax avoidance, while profitability does not.

METHODS

This research utilizes companies in the consumer goods and industrial sector listed on the Indonesia Stock Exchange from 2020 to 2022. The data used in this study is derived from financial statements downloaded from the official Indonesia Stock Exchange website. In selecting the research sample, purposive sampling was applied with the following criteria: a) companies in the consumer goods and industrial sector that are listed on the IDX and published financial statements during the 2020-2022 period; b) using the Indonesian rupiah; c) generating positive profits during the observation years. From these criteria, data were gathered from 38 companies, resulting in 114 data points for the study. There were 11 outliers in the research dataset, leading to a final dataset comprising 103 data points.

The operational definition and measurement of variables are as follows. Tax avoidance can be measured using the effective tax rate, also known as the cash effective tax rate (CETR). The formula for calculating tax avoidance using cash ETR is as follows:

$$\text{Cash ETR} = \frac{Tax\ Payments}{\text{Profit Before Tax}}$$

Profitability can be measured using Return on Assets (ROA), which compares net income after tax to the company's assets. ROA can be calculated using the following formula:

$$\text{ROA} = \frac{\text{Net Income After Tax}}{\text{Total Assets}}$$

Leverage can be calculated using the Debt to Equity Ratio (DER), which compares the company's total debt to its equity. The formula for calculating the Debt to Equity Ratio (DER) is:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Company size is a scale that classifies the size of a company as large or small in various ways, including total assets, total sales, market value of shares, and more. Company size can be measured using the following formula:

Company Size = Ln Total Assets

Fixed assets are the wealth of the company that has a physical form, provides economic benefits for more than one year, and is acquired by the company to carry out its business activities. The intensity of fixed assets can be measured with the following formula:

$$\text{Fixed Asset Intensity} = \frac{\text{Total Fixed Assets}}{\text{Total Assets}}$$

The research method used in this study employs Multiple Linear Regression Analysis. The Multiple Linear Regression model in this research is used to test the effects of profitability, leverage, company size, and fixed asset intensity on tax avoidance. The multiple linear regression model in this study is as follows:

$$TA = \alpha + \beta 1\ PRO + \beta 2\ LEV + \beta 3\ UP + \beta 4\ IAT + e$$

Explanation:

TA = Tax Avoidance

PRO = Profitability

LEV = Leverage

UP = Company Size

IAT = Fixed Asset Intensity

α = Constant

β = Coefficient

e = Residual Error

The classical assumption test is used to determine the existence or non-existence of violations in the regression model. If the classical assumptions are met, it results in an estimator that qualifies as the Best Linear Unbiased Estimator (BLUE), meaning the regression model can be used as a research estimation tool . The classical assumption tests conducted include normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test.

RESULTS AND DICUSSION

In this study, several analytical tests were employed, including descriptive tests, classical assumption tests, and regression tests. The results of the descriptive analysis are presented in Table 1. This study has fulfilled the classical assumption tests. The normality test was conducted using the One-Sample Kolmogorov-Smirnov Test, yielding a result of 1.337 with a significance level of 0.056 ($p>0.05$), indicating that the data is normally distributed. The results of the multicollinearity test show that all independent variables have tolerance values greater than 0.1 and VIF values below 10 for all variables (PRO: 0.989; 1.011; LEV: 0.941; 1.063; UP: 0.952; 1.051; IAT: 0.959; 1.042). The heteroscedasticity test results indicate that all variables have p-values greater than 0.05 (PRO: 0.435; LEV: 0.728; UP: 0.500; IAT: 0.242), signifying that the regression model is free from heteroscedasticity. The autocorrelation test results show that the Durbin-Watson (DW) value is greater than two and less than four ($1.7603 < 1.785 < 2.2397$), indicating that there is no autocorrelation in this study.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TA	103	.12	.56	.2369	.05091
PRO	103	.01	.35	.0992	.07435
LEV	103	.11	3.82	.8781	.76788
UP	103	12.01	19.01	15.1879	1.61980
IAT	103	.04	.76	.3243	.16913
Valid N	103				

The subsequent analysis test is multiple regression using the Ordinary Least Squares (OLS) method. The results of this test indicate the following regression equation:

TA= 0,325 – 0,165 PRO + 0,013 LEV - 0,006 UP + 0,029 IAD + *e*

Based on the results of the F-test in Table 2, the computed F-value is 4.272 with a significance level of 0.000, which is less than 0.05. This indicates that the research model is fit, suggesting that all variables profitability, leverage, company size, and intensity of fixed assets—simultaneously influence tax avoidance. The determination coefficient test shows that the adjusted R^2 is 0.146, meaning that 14.6% of the variation in tax avoidance can be explained by the variables of profitability, leverage, company size, and intensity of fixed assets, while the remaining 85.4% is explained by other variables outside the regression model.

Table 2. T-test

Variable	t	Sig.	Criteria	Description
PRO	-2,579	0,011	p<0,05	H1 accepted
LEV	2,074	0.041	p<0,05	H2 accepted
UP	-2,035	0,045	p<0,05	H3 accepted

Source: SPSS Data Processing Results, 2023

The hypothesis test results indicate that H1 is supported, confirming that profitability significantly impacts tax avoidance. Specifically, the higher a company's profits, the greater the tendency for that company to engage in tax avoidance. This finding aligns with agency theory, which suggests that principals (owners or shareholders) demand a high return on their investments from agents (management). As companies with strong performance generate higher profits, they simultaneously face increased tax liabilities. This scenario often leads to conflicts of interest between principals and agents, as agents are incentivized to maximize returns for principals while minimizing costs, including taxes.

For example, in highly profitable sectors like technology or pharmaceuticals, companies often employ sophisticated tax planning strategies to reduce their tax burdens. These strategies may include shifting profits to subsidiaries in lower-tax jurisdictions, leveraging tax credits and deductions, or reclassifying income streams to benefit from lower tax rates. Google, for instance, has been known to use the "Double Irish with a Dutch Sandwich" strategy, where profits are routed through subsidiaries in Ireland and the Netherlands to minimize taxes on its global earnings. Such practices are not isolated to multinational corporations; smaller domestic companies may also engage in similar tactics on a smaller scale, such as deferring income recognition or accelerating deductible expenses.

The connection between profitability and tax avoidance is further evidenced by studies showing that as companies' profits increase, so does the complexity and aggressiveness of their tax planning activities. These actions are taken to ensure that the maximum amount of profit is returned to the principals, and that agents receive higher compensation linked to the company's profitability (Prasetya & Muid, 2022). This relationship highlights the inherent tension in agency dynamics, where the pursuit of profit maximization often leads to strategies aimed at reducing tax liabilities, thereby increasing the propensity for tax avoidance.

The results of the H2 test indicate that the significance value of the leverage variable is less than 0.05 (0.041<0.05), thus supporting H2, which states that leverage affects tax avoidance. A high leverage value suggests that interest expenses will also be higher, which can lead to a reduction in tax liabilities. Management will pursue financing through debt as a strategy for tax avoidance by minimizing tax burdens. A study conducted by Maulani et al. (2021) on food and beverage industry companies in Indonesia demonstrates that leverage has an impact on tax avoidance, as companies prefer debt financing over increasing equity to minimize their tax obligations.

Hypothesis testing shows that the significance value of the variable company size is less than 0.05 (0.045<0.05), indicating that H3 is supported. As the size of the company increases, the challenges to maintain the company's image and credibility also grow. Management will strive to create a positive image, one of the ways is through offering promising returns to investors. To achieve this goal, minimizing tax burdens is a reliable step; hence, management will engage in tax avoidance and tax planning with the utmost caution, ensuring the company does not incur losses while still reaping the benefits of tax avoidance. The findings of this study align with the research by Hossain et al. (2024), which revealed that larger companies positively influence the implementation of tax avoidance.

The results of test H4 indicate that the significance value is greater than 0.05 (0.318 > 0.05), which leads to the rejection of H4. This suggests that the intensity of fixed asset investment does not significantly impact tax avoidance. Investing in fixed assets is not the best option for companies when implementing tax avoidance strategies. Such investments incur additional costs, such as depreciation, beyond the asset acquisition costs. There is no correlation between fixed asset investment and tax avoidance, as increased depreciation expenses can lead to a decrease in profitability (Agustriana & Alpi, 2020). A decline in profitability can raise concerns among investors, reflecting potential inadequacies in management's decision-making. Conversely, when a company increases its leverage, this can provide dual benefits in implementing tax avoidance. On one hand, it enables the company to acquire additional funds to support its operational activities, while on the other hand, the company incurs interest expenses that can reduce its tax burden.

CONCLUSION

Companies operating in Indonesia are closely linked to taxation issues, including tax obligations. Taxes are a particular concern for companies because they relate to the returns that investors will receive as well as compensation for management. Therefore, the issue of tax avoidance becomes a strategy for management to reduce tax burdens. This study examines the influence of profitability, leverage, firm size, and fixed asset intensity on tax avoidance. The research utilizes data from companies in the consumer goods and industrial sectors listed on the Indonesia Stock Exchange.

Research findings indicate that profitability, leverage, and company size have an impact on tax avoidance, while the variable of fixed asset intensity does not influence tax avoidance. Higher levels of profitability and leverage, along with larger company sizes, encourage firms to engage in tax avoidance. Companies will strive to undertake tax avoidance through tax planning to reduce their tax burden. The intensity of fixed assets does not affect tax avoidance because having a high level of fixed assets does not provide dual benefits in taxation. It merely increases depreciation expenses, which consequently leads to a decrease in the company's profits.

The limitation of this research is that it is confined to the goods and consumption industry sector. Future studies are expected to explore a broader range of sectors. The adjusted R2 value is only 14.6%, indicating that there are still other factors outside the regression model accounting for 85.4%. Future research could incorporate variables related to corporate social responsibility concerning tax avoidance and the company's credibility in the public eye, particularly in industries that impact the environment.

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