THE EFFECT OF LEVERAGE, THIN CAPITALIZATION, AND TAX HAVENS ON TAX AVOIDANCE WITH FIRM SIZE AS A MODERATING VARIABLE

Muhammad Fahmi

Accounting, Faculty of Economics and Business, Universitas Trisakti

Muhammadfahmi.alaidid@gmail.com

Harti Budi Yanti

Accounting, Faculty of Economics and Business, Universitas Trisakti

Abstract

This study aims to analyze the effect of leverage, thin capitalization, and tax havens on tax avoidance, with firm size as a moderating variable in energy sector companies listed on the Indonesia Stock Exchange. The sample consists of energy sector companies listed on the Indonesia Stock Exchange (www.idx.co.id) for the years 2021 to 2023, resulting in a final sample of 204 observations 87 companies selected using a purposive sampling technique. Data was analyzed using SPSS software with multiple regression analysis, descriptive statistics, classical assumption tests, and hypothesis testing that the research results are Leverage and Thin Capitalization both have a moderately positive and statistically significant correlation with tax avoidance Tax Havens shows a weak and non-significant effect on Tax Avoidance Leverage and thin capitalization both have a moderate and statistically significant influence on tax avoidance Tax Havens, which moderate firm size, have a marginally significant but limited influence on tax avoidance.

Keywords: *leverage, thin capitalization, tax haven, firm size, tax avoidance*.

INTRODUCTION

Based on statistical data from the Ministry of Finance as of December 31, 2023, Indonesia's tax revenue for 2023 reached IDR 1,869.23 trillion, marking a significant growth of 8.9 percent from the 2022 realization of IDR 1,716.77 trillion. This figure indicates that tax revenues were equivalent to 108.8 percent of the target set in the 2023 State Budget (APBN) and 102.8 percent of the target outlined in Presidential Regulation No. 75 of 2023 concerning Amendments to the Presidential Regulation.

The 2023 tax revenue was primarily driven by non-oil and gas income tax (PPh), which amounted to IDR 993.0 trillion, achieving 101.5 percent of the target and

growing by 7.9 percent. Following this, value-added tax and luxury goods sales tax (VAT & LGST) generated IDR 764.3 trillion, achieving 104.7 percent of the target with an 11.2 percent growth. Additionally, property taxes (PBB) and other taxes contributed IDR 43.1 trillion, or 114.4 percent of the target, with a remarkable growth of 39.2 percent. However, revenue from oil and gas income tax (PPh Migas) decreased, amounting to IDR 68.8 trillion, or 96 percent of the target

Realization of State Revenue from the Tax Sector (in trillion IDR)

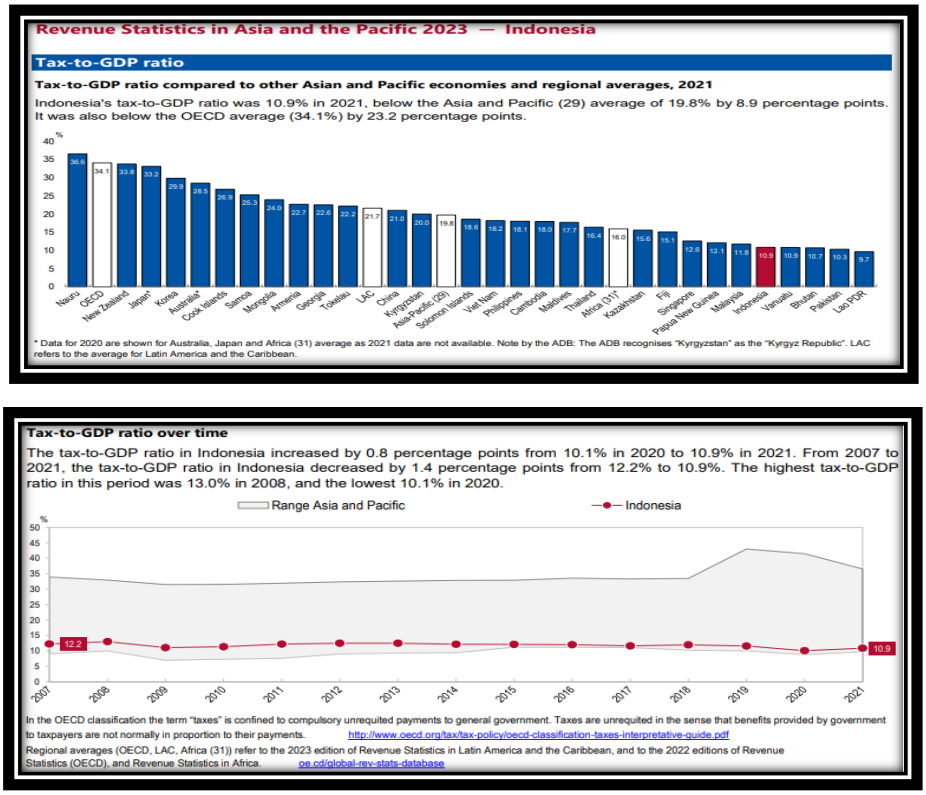
Source: The official website of the Indonesian Directorate General of Taxes (DGT) at www.pajak.go.id.

According to the Revenue Statistics in Asia and the Pacific report released by the Organisation for Economic Co-operation and Development (OECD), Indonesia's tax ratio in 2021 stood at 10.9%, reflecting a 0.8 percentage point increase from 10.1% in 2020.

In the Asia-Pacific region, Indonesia's tax ratio is only slightly higher than Bhutan's 10.7%, Pakistan's 10.3%, and Laos' 9.7%. However, it remains well below the OECD average of 34.1% and the Asia-Pacific average of 19.8%.

Compared to other ASEAN countries, Indonesia's tax ratio is also lower, with Malaysia at 11.8%, Singapore at 12.6%, Thailand at 16.4%, and the Philippines at 18.1%. While there are differences in tax calculation formulas, the OECD data provides a useful benchmark for understanding Indonesia's relative position in the region.

Tax Ratio of Indonesia according to OECD



Source refers to: www.oecd.org 2023.

One-way companies can reduce taxes while still complying with tax regulations is through tax avoidance (Gunawan & Surjandari, 2022). Tax avoidance practices may involve related party transactions, reducing borrowing costs, shifting intangible assets, and utilizing fiscal loss compensation. These strategies enable businesses to minimize or avoid taxes they would otherwise be obligated to pay. To address tax avoidance, the Indonesian government issued Government Regulation No. 55 of 2022 concerning adjustments to income tax regulations. This study is based on previous research (Turwanto & Alfan, 2022) and the provisions of Regulation No. 55 of 2022.

Thin capitalization refers to a company's capital structure where the proportion of debt is higher than equity (Salwah & Herianti, 2019). Tax regulations generally allow interest expenses to be deductible when calculating taxable income, while dividends are not deductible (Russel, 2020). As a result, companies may rely on excessive leverage. Financial reports indicate that some companies adopt capital structures with a significantly higher proportion of debt than equity, suggesting possible tax avoidance using interest expenses as a loophole to reduce the amount of tax payable.

The practice of thin capitalization has indeed been anticipated by the Indonesian

government to combat aggressive tax actions. Regulation of the Minister of Finance of the Republic of Indonesia Number 169/PMK.010/2015 concerning the Determination of the Ratio between Company Debt and Equity for Income Tax Calculation establishes a limit on the proportion of debt to equity, known as the debt-to-equity ratio (DER), at 4:1. This regulation aims to reduce the tendency of companies to avoid taxes through their debts. Other countries, including Indonesia, have implemented regulations that limit interest burdens, which can reduce fiscal benefits (Falbo and Firmansyah, 2018).

The Organisation for Economic Co-operation and Development (OECD) has prioritized the issue of base erosion and profit shifting (BEPS) in all its efforts. Multinational companies can shift their profits from countries with high tax rates to their affiliate companies in countries with low or no taxes, known as "tax havens." Torslov et al. (2020) noted that in 2015, nearly forty percent of multinational profits were transferred to their affiliates in tax-haven countries.

The Indonesian government has taken various steps to address tax avoidance through the use of tax havens. Regulation of the Minister of Finance (PMK) No. 213/PMK.03/2016 on Transfer Pricing Documentation mandates that multinational companies operating in Indonesia provide detailed documentation of intercompany transactions. This documentation must include local files, master files, and country-by-country reports (CbCR), intended to ensure that intercompany transactions are conducted according to arm's length principles.

Double Taxation Agreements (DTA) have been signed between Indonesia and several other countries to prevent double taxation and tax avoidance. These agreements enhance information communication between the tax authorities of the respective countries, facilitating the identification and handling of tax avoidance practices.

Indonesia has also joined the Automatic Exchange of Information (AEOI) initiative led by the OECD. Through AEOI, Indonesia can automatically receive financial information from various partner countries regarding citizens and entities with accounts abroad. This helps Indonesian tax authorities track hidden assets and income in tax havens.

Several government efforts to address tax evasion include Law No. 9 of 2017,

which establishes government regulation in lieu of Law No. 1 of 2017 concerning access to financial information for tax purposes: This law grants the Directorate General of Taxes the authority to access financial information from financial institutions for tax purposes, thereby enhancing the tax authority's ability to detect and address tax evasion.

Additionally, there was the Tax Amnesty Program. The purpose of the tax amnesty program launched by the Indonesian government in 2016-2017 was to encourage taxpayers to disclose undisclosed assets, including assets abroad. This program provided taxpayers with the opportunity to declare their assets at lower tax rates and offered protection from tax audits for previous periods.

The phenomenon of tax evasion is highlighted in a report titled "The State of Tax Justice 2020: Tax Justice in the Time of Covid-19," which states that corporate tax evasion in Indonesia results in an annual loss to the government of $4.86 billion, or Rp 68.7 trillion, while evasion by the government itself causes a loss of $78.83 million, or Rp 1.1 trillion.

Companies often hide their profits in countries considered tax havens. This is done to avoid disclosing the actual profits earned from the countries where the companies operate. As a result of this strategy, companies may pay significantly less tax than they should.

Regarding individual taxpayers, wealthy individuals often hide their assets and declare their wealth abroad, exceeding legal limits. "This pattern is driven by corporate tax abuses, causing low-income countries to lose an equivalent of 5.5 percent of their collected tax revenues, while high-income countries lose 1.3 percent.

To provide a clearer picture, the report indicates that the Indonesian Ministry of Finance targeted tax revenues of Rp 1,198.82 trillion in 2020, or 5.7 percent of the total tax revenue.

Compared to 2019, Indonesia has only realized IDR 1.332 trillion of its tax revenue target, contributing 5.16 percent to the total tax revenue lost, according to the report.

According to the Tax Justice Network report, the money lost due to tax avoidance is equivalent to the salaries of 1.09 million medical workers. With the intentionally unpaid taxes amounting to IDR 68.7 trillion, Indonesia's National Economic Recovery

Program could fund 70.5 percent of the health budget of IDR 97.26 trillion. In terms of the largest tax revenue losses, Indonesia ranks fourth in Asia, after China, India, and Japan. This highlights the significant scale of tax avoidance in Indonesia.

The latest version of the State of Tax Justice 2023 has been revised to include previously missing data for jurisdictions. This correction results in key changes in the report as follows: The report's estimate of total annual tax losses experienced by countries worldwide has increased by 1.7 percent from US$472 billion, as previously reported, to US$480 billion. Of this total loss of US$480 billion, US$311 billion is lost due to corporate tax abuse (previously reported as US$301 billion), and US$169 billion is lost due to tax evasion abroad (initially reported as US$171 billion). The increase in annual tax losses also raises the predicted amount of tax expected to be lost to tax havens over the next decade from US$4.7 trillion to US$4.8 trillion.

In Indonesia, tax violations have been committed by PT Adaro Energy Tbk, a major mining company, in 2019. From 2009 to 2017, PT Adaro Energy Tbk used its subsidiary in Singapore, Coal trade Services International, for transfer pricing. By engaging in tax evasion, PT Adaro Energy Tbk only paid taxes amounting to US$125 million, equivalent to Rp 1.75 trillion (at an exchange rate of Rp 14,000), which is significantly lower than what should have been paid in Indonesia (Sugianto, 2019).

According to statistical data from the Ministry of Finance as of December 31, 2023, Indonesia's tax revenue for 2023 reached IDR 1,869.23 trillion, showing a significant growth of 8.9 percent compared to the realization in 2022, which was IDR 1,716.77 trillion. This figure indicates that tax revenue is equivalent to 108.8 percent of the target set in the State Budget (APBN) for 2023, or 102.8 percent of the target outlined in Presidential Regulation No. 75 of 2023 concerning amendments to the presidential regulation.

In 2023, tax revenue primarily came from non-oil and gas income tax (PPh), which amounted to IDR 993.0 trillion, or 101.5 percent of the target, growing by 7.9 percent. This was followed by value-added tax and luxury goods sales tax (PPN & PPnBM), which reached IDR 764.3 trillion, or 104.7 percent of the target, growing by 11.2 percent. Furthermore, land and building tax (PBB) and other taxes contributed IDR 43.1 trillion, or 114.4 percent of the target, with a growth of 39.2 percent. However, tax revenue from oil and gas income tax (PPh migas) experienced a decline,

reaching IDR 68.8 trillion, or 96 percent of the target.

LITERATURE REVIEW

Agency Theory

Agency theory is the concept of how management and shareholders interact with each other. The policies established by management are accountable to shareholders (Jensen & Meckling, 1976). Tax avoidance refers to efforts made by taxpayers to reduce their tax liabilities by minimizing the company's tax burden. This method is a legal action that does not violate tax regulations (Marsahala et al., 2020).

In relation to taxes, agents must pay high corporate taxes, which can lead to reduced profits. Meanwhile, principals aim to maximize profits, creating a conflict of interest. Thus, agency theory is seen as a solution to the conflict between agents and principals. Agents can utilize their resources to implement tax avoidance strategies that lower the company's tax burden. When tax payments are minimized, the company's profits will increase in line with the principals' expectations, and agents will receive greater incentives due to their ability to maximize profits (Darma, 2019).

Tax Avoidance

Tax avoidance techniques are designed to reduce the amount of tax a company has to pay through legal means without violating tax laws. This technique is carried out without breaching the ten provisions of tax legislation (Rosalin & Basri, 2021).

Tax avoidance is used to decrease a company's tax liabilities and increase net profit. According to the Organization of Economic Cooperation and Development (OECD), there are three characteristics of tax reduction: 1. There are artificially created elements, such as the use of gray areas in regulations where it is unclear whether the activities conducted are violations or not. 2. The exploitation of legal loopholes to apply legal provisions for specific purposes that are not the actual intent of the law in question. 3. There is an element of confidentiality; consultants often provide advice on how to carry out tax reductions while maintaining tax confidentiality, including methods to lower tax costs, so that the tax amount owed by the company can be legally minimized (Pohan, 2013: 23).

Leverage

Leverage is a ratio used to determine how much debt a business holds to finance its assets or how extensively a business relies on debt as a funding source to support its operations (Pangestu & Pratomo, 2020). Business managers use this approach to reduce their

tax obligations. This practice is known as tax avoidance or tax minimization (Sinaga & Suardikha, 2019).

Thin Capitalization

In the context of thin capitalization, investments refer to loans provided in the form of assets or cash from individuals who own shares or from related parties that have a good relationship with the borrower. Multinational companies typically achieve thin capitalization by increasing their total debt costs in high-tax countries. This is supported by the study conducted by Andawiyah et al. (2019).

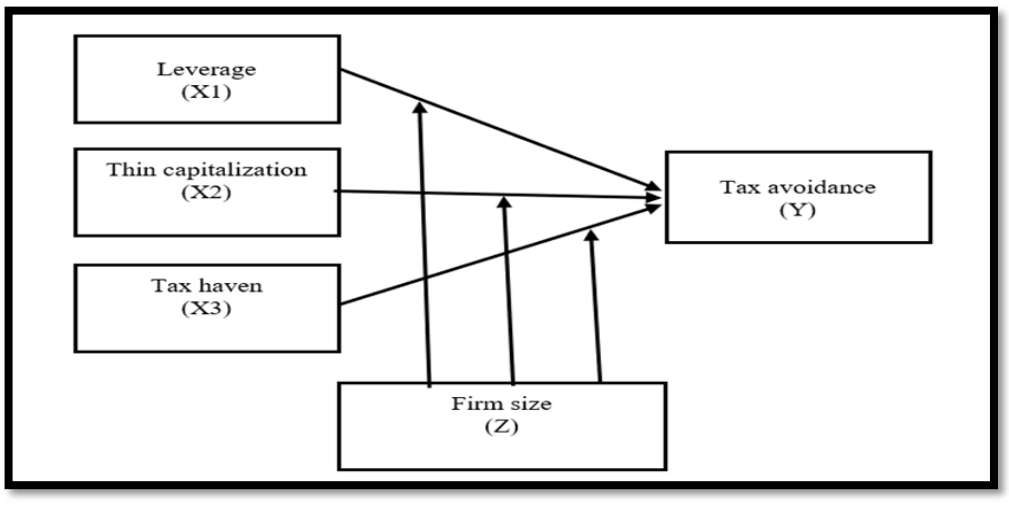
Tax Haven

These tax haven countries strive to attract investors to invest in their economies. Foreign investors may prefer to keep their funds in their home countries rather than risk losing money due to high taxes. This is referred to as tax avoidance schemes; however, in practice, tax havens can devolve into tax evasion, depending on the laws of each country (Marundha, 2021).

Firm Size

Based on the slippery slope theory in an antagonistic tax climate, when tax authorities communicate with a “cops and robbers” attitude, taxpayers will seek to maximize their own profits and only comply when forced to do so. In this context, the larger the size of the company, the more likely taxpayers are to engage in tax aggressiveness, as the imposition of high tax rates affects the tax burden levied by the government on the profits generated, which in turn impacts the company's profitability. This supports the research conducted by Amin & Octaviani (2022) and Amiah (2022).

Conceptual Framework



Development of Hypotheses

The Influence of Leverage on Tax Avoidance

The result shows that leverage has a positive effect on tax avoidance for energy companies listed on the Indonesia Stock Exchange (IDX) from 2021 to 2023. This means that as leverage increases, tax avoidance practices also increase. These results contradict previous research, which found that leverage has a negative effect on tax avoidance (Mariana et al., 2021). Companies with high levels of debt are required to pay high interest, which reduces their tax obligations during the fiscal year. This is because of borrowing on interest expenses, which reduces the company's profits, enabling them to avoid paying taxes.

H1: Leverage has a positive effect on tax avoidance.

The Influence of Thin Capitalization on Tax Avoidance

A company can use either equity or debt to finance its operations. Thin Capitalization emphasizes debt financing within its capital structure, which can create tax incentives through interest expenses that can be treated as deductions from taxable income. Conversely, equity investments are taxed on returns in the form of dividends. The differing treatment of interest and dividends can act as a barrier to tax avoidance strategies. To support this research, several studies are referenced. Research by Setiawan & Agustina (2018), Prastiwi & Ratnasari (2019), and Utami & Irawan (2021) indicates that tax avoidance is more favorable with thin capitalization. With increased thin capitalization, companies tend to rely on debt to fund their operations, thereby increasing the likelihood of tax avoidance.

H2: Thin capitalization has a positive effect on tax avoidance.

The Influence of Tax Havens on Tax Avoidance

Efforts by companies to operate in countries that offer tax exemptions are known as the use of tax havens (Sugiyarti & Purwanti, 2017). Tax haven countries can gain tax advantages through different tax treatments among countries, thus affecting a company's ability to avoid taxes. Companies located in tax haven countries can play a significant role in reducing taxes among members of a corporate group through effective transfer pricing and thin capitalization, according to research by Taylor and Richardson (2012). Therefore, effective tax planning involves group entities that have subsidiaries located in tax havens.

H3: Tax havens have a positive influence on tax avoidance.

The Influence of Firm Size in Moderating the Effect on Tax Avoidance

Larger companies tend to be more capable of significantly utilizing related party transactions in their tax avoidance practices. A larger firm provides greater flexibility and resources for companies to conduct transactions with related parties and optimize their tax structures in more complex and aggressive ways. Chen et al. (2022) state that in large companies, related party transactions can be used more extensively and complexly to manage profits and expenses globally, thus effectively reducing tax obligations (Dyreng et al., 2008).

H4: Firm size strengthens the influence of Leverage on tax avoidance.

The Influence of Firm Size in Moderating the Effect of Thin Capitalization on Tax Avoidance

Companies can manage all their assets to minimize taxable income if they want to reduce their tax burden as much as possible. To achieve this, they can take advantage of depreciation and amortization expenses arising from the expenditures to acquire those assets. This is because depreciation and amortization expenses can be used as deductions against the company's taxable income. Ulfa Jasmine (2017) shows that firm size affects tax avoidance efforts. Based on the formulation above, the research hypothesis is as follows:

H5: Firm size strengthens the influence of thin capitalization on tax avoidance.

The Influence of Firm Size in Moderating Tax Haven on Tax Avoidance

Firm size can strengthen the relationship between the use of tax havens and tax avoidance practices. Larger companies have more subsidiaries or affiliated entities in various jurisdictions, allowing them to more effectively leverage tax havens to manage their global tax liabilities (Hanlon et al., 2015). While small or medium-sized enterprises may also use tax havens, they do so on a smaller scale and with different strategies compared to larger firms. This suggests that firm size can moderate the intensity or strategies of tax haven use in managing taxes (Mills et al., 2019).

H6: Firm size strengthens the influence of tax Haven on tax avoidance.

RESEARCH METHODOLOGY

The type of data in this research is quantitative data. Quantitative data is data in the form of numbers. The quantitative data in this study includes tax avoidance,

related party transactions, thin capitalization, tax havens, and firm size as a moderating variable in companies listed on the Indonesia Stock Exchange (IDX) during the period of 2021-2023 in the energy sector.

The source of data in this research is secondary data. Secondary data is data that does not directly provide information to the data collector, as it can be obtained through intermediaries or documents. The secondary data in this study consists of financial reports obtained from companies listed on the Indonesia Stock Exchange (IDX) during the period of 2021-2023 in the energy sector.

Tabel 1. Sample

No.	Company Characteristics	Total
1.	The number of sector energy companies listed on the Indonesia Stock Exchange (IDX) for the 2021-2023 period	261
2	Companies with data that do not present complete financial reports for the 2021-2023 period	(23)
3	Companies with negative profit values during the study year which resulted in distorted Effective Tax Rate (ETR)	(34)
Total Sample Companies (3 years) 2021-2023		204

Variables and Measurements

Tax Avoidance (Dependent Variable)

Tax avoidance techniques are intended to reduce the amount of tax a company must pay through legal means that do not violate tax laws. These techniques are implemented without infringing on the ten provisions of tax legislation (Rosalin & Basri, 2021). In this study, the proxy used by the researcher is the Effective Tax Rate (ETR). The relationship between Effective Tax Rate (ETR) and tax aggressiveness in publicly listed companies in Indonesia is discussed by Sari et al. (2022). The formula for the Effective Tax Rate (ETR) is generally expressed as follows:

$$Effective\ Tax\ Rate = \frac{Total\ Income\ Tax\ Expense}{Pre{-}Tax\ Income} \times 100\% \quad (1)$$

Leverage (Independent Variable)

The ratio used to assess a company's capacity to fulfil both short- and long-term commitments is called leverage. When a company's assets fall short of its creditors' assets, it is considered to have a high level of leverage (Idris, 2021). The more the company's debt, the more likely it is that tax avoidance will take place (Widodo & Wulandari, 2021).

$$Debt\ to\ Asset\ Ratio\ (DAR) = \frac{Total\ Debt}{Total\ Assets} \quad (2)$$

Thin Capitalization (Independent Variable)

Because larger debts result in higher interest costs, which can be deducted as expenses, thereby reducing taxable income (Utami & Irawan, 2022). It was found that thin capitalization artificially increases interest burdens to reduce taxable profits. Nugroho et al. (2023) used the Debt-to-Equity Ratio (DER) to measure thin capitalization.

$$Debt - to - Equity\ Ratio\ (DER) = \frac{Total\ Debt}{Total\ Equity} \quad (3)$$

Tax haven (Independent Variable)

Tax havens are countries that deliberately establish very low tax regulations, with low or even no tax rates, to provide tax facilities for foreign investors (Widodo et al., 2020). The measurement instrument used for the utilization of tax havens is a dummy variable:

 1 if the company has a subsidiary registered in a country recognized as a tax haven by the OECD

 0 if it does not have such an affiliation.

The formula for calculating the use of tax havens, according to Wijaya & Rahayu (2021), can be represented as follows:

$$Tax\ Haven\ Utilization = \begin{cases} 1\ if\ the\ company\ has\ a\ subsidiary\ in\ a\ tax \\ 0\ if\ the\ company\ does\ not\ have\ a\ subsidiary\ in\ a\ tax\ haven \end{cases} \quad (4)$$

In this formula, the output will indicate whether a company is utilizing tax havens based on the presence of a subsidiary in those jurisdictions.

Firm Size (Moderating Variable)

Larger firms tend to have more resources and opportunities for tax avoidance. The role of firm size helps in reducing the risk of detection by tax authorities. Rachmawati & Purnomo (2023):

$$ln\ (Total\ Assets) \quad (5)$$

Data Analysis Techniques

Hypothesis testing is conducted using a multiple linear regression analysis model, which aims to predict the strength of the influence of independent variables on the dependent variable. The regression equation is:

BTD it = αit + β1LEVit + β2TCAPit + β3THAVit + β4LEVit*SIZEit + β5TCAPit*SIZEit + β6THAVit*SIZEit + εit (6)

Description:

BTDit = Tax Avoidance

αit = Constant (or Intercept).

β1, β2, …, β6 = Regression coefficients.

LEVit = Leverage

TCAPit = Thin Capitalization

THAVit = Tax Haven

SIZEit = Firm Size

εit = Error

RESULT AND DISCUSSION

RESEARCH RESULT

Descriptive Statistical Analysis

A descriptive statistical test is a statistical procedure that provides an overview of study variables, such as minimum and maximum values, mean values, and standard deviations. The table below is a descriptive statistic of the variable tax avoidance and other variables, such as leverage, thin capitalization, and tax haven, with firm size as a moderating component.

Table 2 Descriptive Statistics of Research Data

Variable	Minimum	Maximum	Median	Mean	Std. Deviation	Obs N
Tax Avoidance	0.00	1.97	0.22	0.24	0.22	204
Leverage	0.02	0.90	0.44	0.43	0.21	204
Thin Capitalization	0.00	9.03	0.79	1.17	1.40	204
Tax Havens	0.00	1.00	0.00	0.45	0.50	204
Firm Size	12.44	23.10	19.12	19.12	1.95	204
Leverage Firm Size	0.36	18.77	8.36	8.35	4.25	204
Thin Capitalization Firm Size	0.00	166.77	15.15	22.81	27.93	204
Tax Havens Firm Size	0.00	23.10	0.00	9.22	10.24	204

Source: Processed Data

Based on the result of Descriptive Statistics above the lowest recorded value of Tax Avoidance is 0.00, indicating that some corporations report no detectable tax avoidance. The highest recorded Tax evasion value is 1.97, showing that certain corporations engage in severe tax evasion. The median value of Tax Avoidance is

0.22, indicating that half of the enterprises report a tax avoidance level less than 0.22 and half report beyond this amount. The average degree of tax avoidance across the sample is 0.24, which is quite modest, implying that tax avoidance is not unduly prevalent for the typical firm. The standard deviation is 0.22, demonstrating significant diversity in tax avoidance among enterprises. Some businesses may engage in extremely low degrees of tax evasion, while others engage in rather significant amounts.

The lowest documented amount of leverage is 0.02, demonstrating that some companies have extremely low debt-to-equity ratios. The highest documented degree of leverage is 0.90, indicating that some organizations have a high debt-to-equity ratio. The median leverage is 0.44, implying that half of the enterprises have a leverage ratio less than 0.44 and the other half have a ratio more than 0.44. The average leverage ratio is 0.43, showing that enterprises in the sample use relatively moderate amounts of leverage. A standard deviation of 0.21 indicates some volatility in enterprises' leverage ratios. Some companies are extremely leveraged, while others have less debt.

Thin Capitalization has a minimum value of 0.00, showing that some enterprises do not exhibit thin capitalization. The highest score of Thin Capitalization is 9.03, indicating that some firms have significant levels of thin capitalization. The median value is 0.79, indicating that half of the enterprises have Thin Capitalization levels less than 0.79 and half have levels greater than 0.79. The mean Thin Capitalization is 1.17, implying that the sample's firms have a relatively low level of thin capitalization. The standard deviation of 1.40 suggests that Thin Capitalization varies significantly between enterprises. This is a wide distribution, with many firms having low levels and others having much higher values.

Tax Havens have a minimum value of 0.00, indicating that some corporations do not use tax havens at all. Tax Havens has a maximum value of 1.00, suggesting that some businesses fully exploit them. Tax Havens have a median value of 0.00, indicating that most businesses do not use tax shelters. Tax Havens has a mean value of 0.45, indicating that while some firms use them, the average firm in the sample only does so to a moderate amount. The standard deviation of 0.50 indicates that tax use varies significantly. Many businesses utilize tax havens sparingly, but a handful make considerable use of them.

The lowest value of Firm Size is 12.44, indicating that the smallest firm in the sample is rather significant in terms of assets or revenue. The highest number for Firm Size is 23.10, indicating that the largest firm is quite large. The median firm size is 19.12, which means that half of the firms in the sample are less than 19.12 and half are larger. The average firm size is 19.12, showing that the firm size distribution is symmetrical. The standard deviation of 1.95 suggests a modest variety in firm size, implying that most firms are close to the average size.

The minimal value of Leverage Firm Size moderation is 0.36, indicating that even the smallest values for this variable are significant. The highest score for Leverage Firm Size moderation is 18.77, showing a large variation in the combination of leverage and firm size. The median value of Leverage Firm Moderating Size is 8.36, which means that half of the firms have values less than 8.36 and half have values more than 8.36. Leverage Firm Size moderation has a mean of 8.35, indicating that the combined metric of leverage and firm size is evenly distributed. The standard deviation of 4.25 indicates that Leverage Firm Size is moderating, with some firms being more leveraged or having bigger firm sizes than others.

Thin Capitalization Firm Size moderation has a minimum value of 0.00, showing that certain firms do not exhibit either thin capitalization or firm size moderating effects. The maximum value of Thin Capitalization Firm Size moderation is 166.77, implying that some firms have both high thin capitalization and huge firm sizes. The median number is 15.15, indicating that half of the enterprises are below, and half are above. Thin Capitalization Firm Size Moderating has an average value of 22.81, indicating that firms have moderately high levels of both thin capitalization and firm size moderating. The standard deviation of 27.93 indicates unusually high variability in Thin Capitalization Firm Size Moderating, implying that certain firms have extremely high combined values for thin capitalization and firm size moderation.

The Tax Havens Firm Size moderation has a minimum value of 0.00, showing that certain firms do not use tax havens, even when firm size is considered. The maximum value for Tax Havens Firm Size is 23.10, indicating that certain large corporations make substantial use of tax havens. The median value of Tax Havens Firm Size Moderating is 0.00, showing that most firms do not use tax havens, regardless of firm size. Tax Havens Firm Size moderation has a mean score of 9.22,

indicating that tax havens are used moderately in comparison to firm size moderation. The standard deviation of 10.24 suggests significant variation in the use of tax havens by enterprises of various sizes.

Hypothesis Testing

Table 3 Results of Correlations of Research Data and Model Determination Test

Variable	Pearson Correlation	R-Square (R^2)	Adjusted R^2	F-Stat	Sig.	Durbin-Watson
Leverage	0.257	0.066	0.061	14.269	<.001b	1.690
Thin Capitalization	0.257	0.066	0.061	14.273	<.001b	1.660
Tax Havens	0.112	0.013	0.008	2.562	.111b	1.625
Leverage Firm Size	0.261	0.068	0.063	14.744	<.001b	1.695
Thin Capitalization Firm Size	0.263	0.069	0.065	15.041	<.001b	1.662
Tax Havens Firm Size	0.129	0.017	0.012	3.415	.066b	1.631

Source: Processed Data

Table 4 Results of Coefficient of Determination and Partial Significance Test

Variable	Unstandardized Coefficients (B)	Standardized Coefficients (Beta)	t	Sig.	Correlations Partial	VIF
Leverage	0.269	0.257	3.777	0.00021	0.257	1.000
Thin Capitalization	0.040	0.257	3.778	0.00021	0.257	1.000
Tax Havens	0.049	0.112	1.601	0.11100	0.112	1.000
Leverage Firm Size	0.013	0.261	3.840	0.00016	0.261	1.000
Thin Capitalization Firm Size	0.002	0.263	3.878	0.00014	0.263	1.000
Tax Havens Firm Size	0.003	0.129	1.848	0.06607	0.129	1.000

Source: Processed Data

DISCUSSION

The Effect of Leverage on Tax Avoidance

Based on the result of hypothesis testing, Pearson correlation coefficient: 0.257. Leverage has a positive link with tax avoidance. This implies that increased leverage relates to increased tax avoidance. $R^2 = 0.066$ (adjusted = 0.061), The model explains

just 6.1% of the variation in Tax Avoidance, indicating that, while the relationship is substantial, Leverage alone does not explain a large portion of the variation. F-stat = 14.269, Sig < 0.001. The F-statistics are significant, implying that the model is effective at explaining Tax Avoidance. Unstandardized coefficients (B) = 0.269, standardized coefficients (Beta) = 0.257, t = 3.777, sig. = 0.00021.The use of leverage has a statistically significant favorable impact on tax avoidance. Tax Avoidance increases by 0.269 for every unit increase in Leverage, which is statistically significant (p-value < 0.001). Durbin-Watson = 1. 690.The Durbin-Watson score is close to 2, indicating that the regression model's residuals lack considerable autocorrelation. The idea that leverage has a favorable effect on tax avoidance is supported. Although the model's explanatory power (R^2 = 0.061) is modest, the result is statistically significant and indicates a positive association that align with the research of Khairunnisa, Simbolon, and Eprianto (2023) found that leverage positively affects tax avoidance in Indonesian manufacturing firms, Gunita and Oktaviani (2023) examined tax avoidance determinants, including leverage, in manufacturing companies in Indonesia. Rahayu, Subiyanto, and Digdowiseiso (2023) investigated profitability, leverage, and firm size impacts on tax avoidance

The Effect of Thin Capitalization on Tax Avoidance

Based on the result of hypothesis testing, Pearson Correlation: 0.257. Thin Capitalization and Tax Avoidance have a positive association, implying that as Thin Capitalization increases, so does Tax Avoidance. R^2 = 0.066 (adjusted to 0.061). Thin capitalization, like leverage, accounts for just 6.1% of the variance in tax avoidance. This model has minimal explanatory power. F-stat = 14.273; Sig. < 0.001. The model is statistically significant, demonstrating that Thin Capitalization makes a considerable contribution to explaining Tax Avoidance. Unstandardized coefficients (B) = 0.040; Standardized coefficients (Beta) = 0.257; t = 3.778; Sig. = 0.00021. The coefficient for Thin Capitalization is both positive and statistically significant. Thin Capitalization raises Tax Avoidance by 0.040 per unit, with a significant finding (p-value < 0.001). Durbin-Watson = 1.660. According to the Durbin-Watson statistics, the residuals do not show any substantial autocorrelation. The concept that Thin Capitalization helps with tax avoidance is supported. Although the result is statistically significant, the model's explanatory power is modest (R^2 = 0.061) that align with the research of.

Nainggolan and Hutabarat (2022): This study analyzed the impact of thin capitalization and capital intensity on tax avoidance within companies listed in the Infobank15 index. Ramadhan (2023): This research investigated the effect of thin capitalization rules on tax avoidance in Indonesia. Nurulita and Yulianto (2023): This study explored factors such as profitability, institutional ownership, and thin capitalization as drivers of tax avoidance.

The Effect of Tax Havens on Tax Avoidance

Based on the result of hypothesis testing, Pearson Correlation: 0.112. There is a slight positive relationship between Tax Havens and Tax Avoidance. This suggests that, while Tax Havens may be linked to Tax Avoidance, the association is not particularly strong. $R^2 = 0.013$ (adjusted to 0.008). This model explains only 1.3% of the variance in Tax Avoidance, implying that Tax Havens are not a good predictor of Tax Avoidance. F-stat = 2.562; Sig. = 0.111. The F-statistics are not statistically significant at the 0.05 level, imply that the model does not explain tax avoidance. Unstandardized coefficients (B) = 0.049, standardized coefficients (Beta) = 0.112, t = 1.601, and sig. = 0.111. The result is not statistically significant (p-value = 0.111), indicating that there is insufficient data to conclude that Tax Havens have a major impact on Tax Avoidance. Durbin-Watson is 1.625. The Durbin-Watson statistics reveal no significant autocorrelation in the residuals. The premise that Tax Havens have a large impact on Tax Avoidance is unsupported. The link is modest, and the model is statistically insignificant that align with the research of Hines and Rice (2022): This study shows that multinational companies use tax havens to shift profits in order to reduce their global tax liabilities. Palan et al. (2022): This research focuses on the role of tax havens in influencing the global tax structure.

The Effect of Firm Size in Moderating Leverage on Tax Avoidance

Based on the result of hypothesis testing, Pearson correlation: 0.261. There is a moderately favorable relationship between leverage moderating firm size and tax avoidance. $R^2 = 0.068$ (Adjusted $R^2 = 0.063$). This model explains 6.3% of the variance in Tax Avoidance, which is modest but statistically significant. F-stat = 14.744; Sig. < 0.001. The model is substantial, indicating that leverage firm size helps to explain tax avoidance. Unstandardized coefficients (B) = 0.013; Standardized coefficients (Beta) = 0.261; t = 3.840; sig. = 0.00016. The coefficient for leverage firm

size is both positive and statistically significant. Tax Avoidance rises by 0.013 for every unit increase in Leverage Firm Size, a statistically significant result. Durbin-Watson is 1.695. There is no significant autocorrelation in the residuals. The hypothesis that that Leverages Firm Size Moderates Tax Avoidance is supported. The findings are statistically significant, and the model is somewhat explanatory.

The Effect of Firm Size in Moderating Thin Capitalization on Tax Avoidance

Based on the result of hypothesis testing, Pearson Correlation: 0.263 Thin Capitalization has a moderate positive association with Firm Size and Tax Avoidance. $R^2 = 0.069$; adjusted $R^2 = 0.065$. The model accounts for 6.5% of the variation in Tax Avoidance, which is little but meaningful. F-stat = 15.041, Sig < 0.001. The model is statistically significant, implying that Thin Capitalization Firm Size Moderates Tax Avoidance. Unstandardized coefficients (B) = 0.002, standardized coefficients (Beta) = 0.263, t = 3.878, sig. = 0.00014. The Thin Capitalization Firm Size Moderation coefficient is both positive and statistically significant. Tax Avoidance rises by 0.002 for every unit increase in Thin Capitalization Firm Size moderation, with statistical significance.

The Effect of Firm Size in Moderating Thin Capitalization on Tax Avoidance

Based on the result of hypothesis testing, Pearson Correlation = 0.129. A small positive association exists between Tax Havens and Firm Size, which moderates tax avoidance. $R^2 = 0.017$ (adjusted to 0.012). This model explains only 1.2% of the variance in Tax Avoidance, indicating very low explanatory power. F-stat = 3.415; Sig. = 0.066. The model has marginal significance at the 0.10 level, but not at the 0.05 level. Unstandardized coefficients (B) = 0.003, Standardized coefficients (Beta) = 0.129, t = 1.848, sig. = 0.06607. The effect of Tax Haven Firm Size Moderating on Tax Avoidance is not statistically significant at the 0.05 level, although it is marginally significant (p-value = 0.066). Durbin-Watson equals 1.631. There is no significant autocorrelation in the residuals. The hypothesis that Tax Havens' firm size moderates tax avoidance is not well established. The result is slightly significant but does not reach the 0.05 level of statistical significance.

CONCLUSION, LIMITATION AND RECOMMENDATION

CONCLUSION

This research results in how leverage, thin capitalization, and tax havens affect tax

avoidance, with business size acting as a moderator. The results are as follows. Leverage and Tax Avoidance: Leverage has a statistically significant positive effect on tax avoidance. This lends credence to the argument that debt boosts interest deductions, lowering taxable income and encouraging tax avoidance. Thin capitalization and tax avoidance: Thin capitalization has a favorable influence on tax avoidance which supports the theory that enterprises with higher debt-to-equity ratios take advantage of tax breaks through deductible interest expenditures. Tax Havens and Tax Avoidance: The link between tax havens and tax avoidance is weak and statistically negligible. This shows that, while some businesses use tax havens, their impact on tax evasion is limited in this research. Firm size plays a moderating role in the favorable effect of leverage on tax avoidance. Similarly, firm size modifies the link between thin capitalization and tax avoidance positively. However, the moderating effect of business size on the association between tax havens and tax evasion is minimal, statistically negligible. Overall, the findings show that business size increases the impact of leverage and thin capitalization on tax avoidance but has little interaction with tax havens. The model's explanatory power is limited, showing that other factors may influence tax avoidance practices.

LIMITATION

Low Explanatory Power: The models show that the analyzed variables explain just a tiny percentage of tax avoidance, implying that other factors such as regulatory environment, business governance, or profitability may play a larger role. Sector-Specific Context: The conclusions are based on specific industries (e.g., manufacturing in Indonesia) and may not be applicable to other sectors or regions. Data Scope: The reliance on secondary data limits the ability to obtain qualitative insights into the managerial tactics that underpin tax avoidance. Data Scope: The reliance on secondary data limits the ability to obtain qualitative insights into the managerial tactics that underpin tax avoidance. Tax Haven Dynamics: The weak link between tax havens and tax avoidance reveals either measurement errors or underreporting of tax haven usage.

SUGGESTION

Future research should include moderating variables like profitability, corporate governance, and management ownership to enhance the models' explanatory power. Investigate sectoral distinctions to better understand the influence of industry-specific elements in tax avoidance behavior. Future research should improve the measurement of tax haven activity, maybe by country-specific reporting or corporate disclosures in several countries. Incorporate longitudinal data to investigate the influence of regulatory changes and economic cycles on tax avoidance. Policy Implications: Regulators should strictly supervise thin capitalization techniques and leverage-related tax benefits to prevent aggressive tax avoidance. Policies aimed at combating tax haven exploitation should be supplemented with stronger disclosure requirements to better understand their role in tax tactics. Corporate principles: Companies should connect their tax strategy with ethical principles and address the reputational consequences associated with aggressive tax avoidance. Given their close public scrutiny, large corporations should establish clear tax reporting processes.

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