



Do Thin Capitalization, Return on Asset, and Company Size Impact Tax Avoidance? Empirical Evidence from Transportation and Logistics Companies

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A B S T R A C T

This study aims to determine the impact of thin capitalization, return on asset, and company size on tax avoidance, specifically among publicly listed companies in the transportation and logistics sector from 2019 to 2022. The research encompasses all data from companies listed on the Indonesia Stock Exchange within this sector. Considering the available data, a total of 60 samples were selected as the objects of this study. The testing method employed was multiple linear regression analysis using panel data. This research distinguishes itself by addressing a critical gap in existing literature on tax avoidance, shedding light on previously unexplored sector and presenting novel insights into the interplay between thin capitalization, return on assets, company size and tax avoidance in the transportation and logistics industry. Our multiple linear regression analysis concludes that thin capitalization and return on asset have inverse relation with tax avoidance, meanwhile, company size has a positive relation to tax avoidance. We also discover that return on assets partially has influence on tax avoidance, whereas thin capitalization, return on asset and company size simultaneously influence tax avoidance.

INTRODUCTION

In 2022, state revenue collected was Rp2,626.4 trillion with tax revenue contributing Rp1,717.8 trillion, approximately 65.4% of the total state revenue collected. The tax revenue in 2022 grew by 34.3%, significantly surpassing the tax growth rate in 2021, which stood at 19.3% (Ministry of Finance, 2023). Tax revenue continues to exhibit an increasingly positive performance, consistently surpassing the set targets for the past two years.

The substantial proportion of tax revenue from the total state budget (APBN) signifies Indonesia's heavy reliance on tax revenue. The role of taxes is pivotal in supporting the country's development and governance. The government continually strives to maintain a balance between economic advancement and tax revenue generation.

Improvements in tax revenue are evident through the tax ratio, which grew from 9.21% in 2021 to 10.39% in 2022 (Ministry of Finance, 2023). Despite this progress, Indonesia's tax revenue is considered lower compared to other ASEAN nations. Based on OECD data (OECD, 2023), Indonesia's tax ratio of 10.9% in 2021 remains below that of other ASEAN countries like Vietnam (18.2%), the Philippines (18.1%), Thailand (16.4%), Singapore (12.6%), and Malaysia (11.8%).

Amid the increasing tax ratio and momentum of economic recovery post-pandemic, one of the sectors demonstrating considerable strength is the transportation and logistics sector. Recorded until May 2023, tax revenue growth from this sector reached 46.5% compared to the same period in 2022, showing an increase of 13.7% (DDTC, 2023). The bolstering growth in the transportation and logistics sector aligns with the

escalating mobility of the populace and advancements in the tourism sector. Among the proof of that statement is that according to Indonesia's Central Agency of Statistics, in August 2023, international visitor arrivals in Indonesia were 1.13 million. International visitors increased by 68.92 percent compared with August 2022 (year-on-year) and slightly increased by 1.02 percent compared with July 2023 (month-to-month).

The aviation business plays a crucial role as a transportation means in Indonesia. According to the International Air Transport Association (IATA), Indonesia is estimated to become the 6th largest air travel market in the world by 2034 (DDTC, 2017). Although the research is not limited to aviation companies alone, the increasing market in transportation, particularly aviation, in Indonesia is expected to influence the growth of revenue for companies operating in the transportation sector. With increased earnings for these companies, the tax revenue received by the government is also anticipated to rise proportionally.

Aside from the aviation business, another related business in the sector is the shipping business. Globally, the effective corporate income tax rate is 6% for bulk transport, 3% for the tanker sector, and 0% for cruise shipping companies. That is below the average corporate income tax rate for other parts of the freight transport sector. The average rates for freight forwarders, for instance, is 27% (Merk, 2021). Presently, the publicly available data pertaining to shipping activities in Indonesia remains limited, thereby constraining the depth and breadth of scholarly exploration in this area. However, it's relatively safe to presume that there's untapped tax revenue

potential in the sector, given the significant growth of this sector both globally and domestically.x

In broad terms, the corporation's mission is to maximize shareholder value through maximizing profits. Profit maximization may be achieved through selling products or services (Henderson, 2021; Luyckx et al., 2022). On the other hand, one of the factors contributing to Indonesia's relatively low tax ratio is the prevalence of tax avoidance practices. Tax avoidance is not only carried out by multinational corporations but also by domestic enterprises. Seeking loopholes in tax regulations is perceived as a way for companies, aiming for maximal profits, to sustain their gains. Slemrod (2004) asserts that businesses would take advantage of leniency and legal interpretation gaps to decrease their tax burden through lawful actions due to creative compliance. Panjalusman et al. (2018) affirm that tax avoidance is carried out by taking advantage of gaps and loopholes in tax regulations to reduce the amount of corporate tax significantly.

Tax avoidance entails a scheme aimed at minimizing tax expenses by exploiting gaps in a country's tax regulations (Wijaya and Rahayu, 2021: 21). While tax avoidance is legal and doesn't violate laws, it contradicts the objectives behind tax regulations. This practice can create economic unfairness where companies capable of contributing more in taxes endeavor to pay significantly less. In the context of a public corporation, reducing the tax burden is advantageous for shareholders (Wang et al., 2020).

The larger the scale of a company's operations (company size), the greater the opportunities for involvement in tax avoidance practices. There exist numerous schemes and structures within tax avoidance, such as thin capitalization. Company funding can derive from debt and equity. When funding primarily comes from debt, there are interest expenses that companies must pay. These interest expenses can be deducted in tax calculations, which companies exploit by relying more on debt funding.

Various methods exist to demonstrate a company's involvement in tax avoidance. The magnitude of Return on Assets (ROA) reflects a company's ability to generate profit. This implies that companies capable of managing income and tax payments may not engage in tax avoidance practices (Irawati, Cahya, and Ningsih, 2021).

Previous studies have shown diverse results of tax avoidance schemes and their interplays with the three independent variables we employ within this study. Research conducted by Gouwvara and Susanty (2023) indicates that thin capitalization significantly influences tax avoidance practices. However, contrasting results were found in a study conducted by Rahmah and Sovita (2023). Research conducted by Stawati (2020) has indicated that, in partial terms, company size does not exhibit a significant and positive influence on tax avoidance. Whereas a study conducted by Darmawan and Sukartha (2014) contradict that finding. There are also studies that prove higher RoA has positive impacts on tax avoidance (Gouwvara and Susanty (2023) and Darmawan and Sukartha (2014)) and studies that prove otherwise ((Dewi, Pernamasari, 2022) and Paramita, et al (2022). In short, further research is needed to shed light on the gap in between existing studies and provide further empirical evidence to the issue.

The novelty of this study is that we bridge a critical gap in the existing literature and empirical evidences on tax

avoidance, specifically in the relatively limited studies on the transportation and logistics sector, and present newfound insights into the interplay between thin capitalization, return on assets, company size, and tax avoidance in the transportation and logistics industry in Indonesia during 2019-2022. The study focuses on companies listed on the Indonesia Stock Exchange (IDX) operating in the transportation and logistics sector and aims to understand the influence of thin capitalization, company size, and Return on Assets (ROA) within the transportation and logistics sector on tax avoidance.

Thin Capitalization

Thin capitalization is a condition where a company prioritizes funding its operational activities through debt, resulting in a larger debt structure compared to equity. This leads to an increase in the amount of tax-deductible debt as a reducer of taxable income for an entity (Prayoga, Neldi, & Sari, 2019). The government has specifically addressed thin capitalization in Income Tax Law in article 18 (1). Further provisions include Finance Minister Regulation Number 169/PMK.010/2015 concerning the Determination of the Ratio between Company Debt and Equity for Income Tax Calculation Purposes, which limits the Debt to Equity Ratio (DER) of an entity to a maximum of 4:1 to prevent tax avoidance. Research conducted by Gouwvara and Susanty (2023) indicates that thin capitalization significantly influences tax avoidance practices. However, contrasting results were found in a study conducted by Rahmah and Sovita (2023), where the partial impact of thin capitalization on tax avoidance was deemed insignificant.

Company Size

The size of a company can indicate the stability of an entity in conducting its activities. A higher value of a company's assets suggests that the entity is more likely to generate profits and expand its market share. Company size can be measured using the natural logarithm of total assets (Richardson, Taylor, & Lanis, 2013). The larger the company size, the higher the total assets owned. Research conducted by Stawati (2020) has indicated that, in partial terms, company size does not exhibit a significant and positive influence on tax avoidance. Conversely, a study by Darmawan and Sukartha (2014) has stated that there is causality between company size and the practice of tax avoidance.

Return on Assets

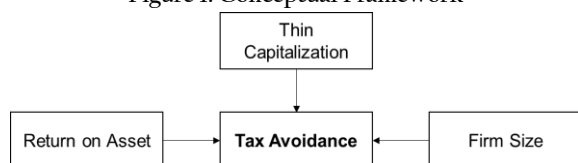
The profitability of an entity is measured using the Return on Assets (RoA) ratio, which demonstrates the entity's ability to generate income from its assets. A higher RoA value indicates better performance by the entity in utilizing its assets to generate profits. Consequently, the tax expenses that the entity should bear increases. This statement is supported by research conducted by Gouwvara and Susanty (2023) and Darmawan and Sukartha (2014). A study conducted by Sari, Andrianto and Rosmana (2020) shows that RoA has an effect on tax avoidance in manufacturing companies listed on the Indonesia Stock Exchange for the period of 2012-2017. However, there's a negative impact of RoA on tax aggressiveness in manufacturing companies listed on Indonesia Stock Exchange for the period of 2019-2021 (Dewi, Pernamasari, 2022). This result is further supported by a study conducted by Paramita, et al (2022) that RoA has negative impacts on tax avoidance in another sector.

Tax Avoidance

Tax avoidance is the practice whereby an entity utilizes legal loopholes to structure transactions in order to minimize

the amount of tax that should be paid. This practice is deemed safe and lawful as companies do not violate tax regulations. According to Rejeki, S. et al. (2019), tax avoidance can be carried out by companies engaged in transactions with related parties. As these transactions are conducted with affiliated parties, the pricing determination may be unreasonable and not in accordance with the arm's length principle. Hanlon and Heitzman (2010) stated that tax avoidance can be measured by dividing worldwide total income tax expense with worldwide total pre-tax accounting income. The lower the number means the more effective the tax rate is, therefore leads to less tax avoidance activities.

Figure 1. Conceptual Framework



Source : Author's Illustration

Hypotheses

H1: Thin capitalization has a positive effect on tax avoidance

A company's financial structure formulated with a higher debt-to-equity ratio results in an increase in interest expenses. The elevation of interest expenses, as a reducer of taxable income, can diminish the amount of tax owed.

H2: Company size has a positive effect on tax avoidance

As the value of a company's assets increases, so does the size of the company. This is in line with an entity's tendency to engage in tax avoidance practices.

H3: RoA has a positive effect on Tax Avoidance

Companies' profitability, measured using the RoA ratio, if increases, leads to higher tax expenses. Hence, companies tend to engage in tax avoidance to pay less taxes

METHODS

Research Design

This research aims to investigate the influence of thin capitalization, return on assets, and company size on tax avoidance practices within the Transportation and Logistics sector. The study conducted is quantitative in nature, utilizing secondary data. Quantitative research involves examining both population and sample data to test hypotheses using statistical data analysis techniques (Sugiyono, Research Methods in Quantitative, Qualitative, and R&D, 2017).

Statistical analysis in this research is performed using the SPSS tool (Statistical Package for the Social Sciences). Secondary data refers to information not directly obtained from the research subject but rather acquired from a third party. Secondary data is gathered and disseminated by an institution, thus accessible to the general public (Hanke & Reitsch, 1998). In this study, secondary data is sourced from the Indonesia Stock Exchange (IDX) and accessed through <https://www.idx.co.id/>.

Research Object

The population for this study comprises companies in the Transportation and Logistics sector listed on the Indonesia Stock Exchange (IDX) during the years 2019-2022. Sample selection is conducted using the Purposive Sampling Methods

technique, which involves selecting samples based on meeting specific characteristics or criteria (Campbell et al., 2020).. The sample criteria employed in this research are as follows:

- a. Companies in the Transportation and Logistics sector listed on the IDX during the years 2019-2022;
- b. Financial statements publicly disclosed and accessible through idx.com;
- c. Financial statements presented in Indonesian Rupiah currency; and
- d. Availability of complete data required for the study during the years 2019-2022 and demonstrating profitability.

Variables Identification

Independent variables (X) are variables presumed to be the cause or influence of other variables (Indriantoro & Supomo, 1999). In this study, there are three independent variables: thin capitalization, return on assets, and company size. Dependent variables (Y) are variables presumed to be the effect or influenced by other variables. In this research, the dependent variable (Y) is Tax Avoidance, identified by the Effective Tax Rate (ETR). The ETR is calculated by comparing the tax expense to the pre-tax income of an entity.

RESULT AND DISCUSSION

Statistical Descriptive Test Results

The descriptive statistical test aims to depict or describe the research object's data in general. This process involves determining maximum and minimum values, median, mean, standard deviation, skewness, and kurtosis of the dataset.

Descriptive statistics examine data by describing or summarizing the acquired data without drawing generally accepted inferences or absolute generalizations. In descriptive statistics, each variable's mean, standard deviation, minimum, maximum, skewness and kurtosis values are sought. The statistical descriptive of each variable can be seen in the following table.

Table 1 Statistical Descriptive

Variable	Thin Cap	RoA	Comp Size	ETR
Max	41.65	0.34	30.82	1.20
Min	-7.94	0.00	24.65	0.01
Median	0.50	0.05	26.57	0.25
Mean	1.32	0.07	26.91	0.30
Std. Dev	5.65	0.07	1.46	0.22
Skewness	6.26	1.78	0.76	1.82
Kurtosis	45.69	3.15	-0.09	5.08

Source : Primary Data Processed, 2023

The descriptive statistics analysis encompassed several variables within the dataset. Variable ETR as a dependent variable exhibited a mean value of 0,3, with a maximum score of 1,2 and a minimum value of 0,01, indicating the range of observations. Its median stood at 0,25, indicating a roughly symmetric distribution. The standard deviation of ETR was calculated at 0,22, suggesting a moderate dispersion of data points around the mean. Skewness in ETR was found to be 1,82, slightly skewed to the right, while its kurtosis of 5,08 illustrated a peakedness in the distribution, implying heavier tails and a more pronounced central peak compared to a normal

distribution. The highlights for the independent variables in this study include thin capitalization with maximum value of 41,65 and minimum value of -7,94, indicating the widest range in the dataset as well as the only range with negative value. Another highlight is that company size is the only variable with negative kurtosis, which indicates that the data points tend to have fewer outliers than would be expected in a normal distribution. Whereas the kurtosis for thin capitalization exceeds the maximum value in the dataset, signifying that the dataset has heavier tails and a more pronounced peak compared to a normal distribution.

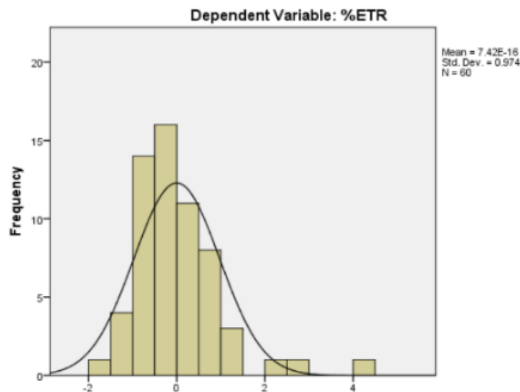
Classical Assumption Tests Results

This testing is a statistical requirement that a set of samples must meet before conducting regression analysis based on Ordinary Least Square (OLS). Classical assumption tests are the prerequisites before further analysis is conducted to the acquired data. Classical assumption tests that are employed in this study are normality test, multicollinearity test, heteroskedasticity test and autocorrelation test.

Normality Test Result

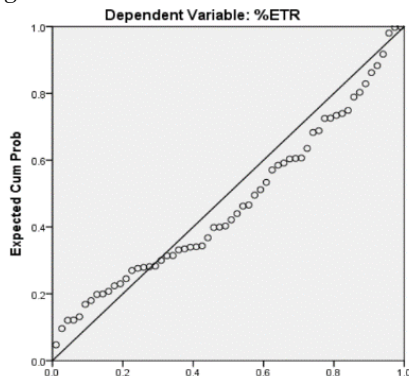
The normality test is conducted to determine whether the standardized residuals under investigation follow a normal distribution or not. Ghozali (2013) suggests that good regression model data should be normally distributed. In this research, the normality test is performed using the Kolmogorov-Smirnov test and observing the Normal Probability Plot graph, where the plotted regression points are ideally distributed along a diagonal line.

Figure 2. Regression Standardized Residual



Source: Primary Data Processed, 2023

Figure 3. Observed Cumulative Probability



Source: Primary Data Processed, 2023

Based on the regression's scatter plot, the data is distributed around the diagonal line and follows the diagonal line direction. The observed cumulative probability is above 0,0. Using the komogrov-smirnov, we obtained the following results:

Table 2 Normality Test Result

		Unstandardized Residual
N		60
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	0.19409443
Most Extreme Differences	Absolute	.108
	Positive	.108
	Negative	-.081
Kolmogorov-Smirnov Z		.833
Asymp. Sig. (2-tailed)		.491

a. Test distribution is Normal,

b. Calculated data

Source: Primary Data Processed, 2023

Using the normality test, a significance value of $0,491 > 0,05$ was obtained. Therefore, it's concluded that the residual value is normally distributed. The results indicate that the distribution of the sample data used was randomly drawn from a normal population and does not exhibit significant differences or outliers.

Multicollinearity Test Result

The non-multicollinearity test is conducted to identify whether there is correlation among the independent variables in a regression model (Ghozali, 2013). An excellent regression model should not exhibit multicollinearity among its independent variables. Multicollinearity can be observed through the values of tolerance and Variance Inflation Factor (VIF).

Table 3 Multicollinearity Test Result

Model	Coefficients ^a	
	Collinearity Statistic	
	Tolerance	VIF
(Constant)		
%THIN	.991	1.009
%ROA	.992	1.008
%SIZE	.998	1.002

a. Dependent Variable: %ETR

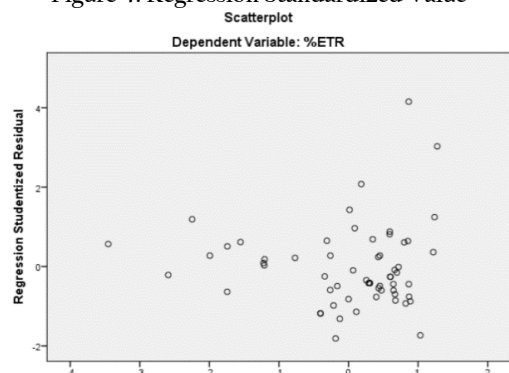
Source : Primary Data Processed, 2023

The data is considered to have no multicollinearity if the tolerance value is greater than 0,100 and VIF value is less than 10,00. Based on table 3, it's shown that the tolerance value for thin capitalization is 0,991, ROA is 0,992, and company size is 0,998 where each variable has exceeded the 0,100 threshold. Meanwhile the VIF value for thin capitalization is 1,009, ROA is 1,009, and company size is 1,002 where each variable is under the 10,00 threshold. Therefore, we concluded that every variable employed in this study is free from multicollinearity, it means that the independent variables (Thin Capitalization, ROA, and Company Size) do not have strong correlations with each other.

Heteroskedasticity Test Result

The non-heteroskedasticity test is performed to determine the presence of varying variance within the residuals of a research study (Ghozali, 2013). This can be observed by checking for patterns in the scatterplot graph of the regression model data. A scatterplot graph that forms a specific pattern indicates the presence of heteroskedasticity in the data.

Figure 4. Regression Standardized Value



Source : Primary Data Processed, 2023

Based on the heteroskedasticity test results, the scatter plot diagram above illustrates that all the plots do not form a specific pattern and are distributed above and below the 0 in Y axis. If tested using the glejser method, the following result is obtained:

Table 4 Multicollinearity Test Result

Model	Coefficients ^a		t	Sig.
	Unstandardized Coefficients	Standardized Coefficients		
	B	Beta		
Const	-.259	.314	-.825	.413
%THIN	.000	.003	.146	.885
%ROA	-.388	.235	-1.648	.105
%SIZE	.016	.012	1.360	.179

a. Dependent Variable: Abs_Res
Source : Primary Data Processed, 2023

If the significance value of dependent variables with residual absolute value is greater than 0,05, then there's no heteroskedasticity. Table 4 shows that the significance value of thin capitalization is 0,885, ROA is 0,105, and company size is 0,179 where every variable has exceeded the 0,05 threshold. Therefore, we conclude that there's no heteroskedasticity, it means the variance of residual values among variables remains constant.

Autocorrelation Test Result

The non-autocorrelation test is conducted to identify whether there is dependence among variables based on a specific time frame. To detect autocorrelation symptoms, the Durbin-Watson test is utilized. If the Durbin-Watson value falls between approximately 2 to (4 - du), it indicates the absence of autocorrelation within the data.

Table 4 Autocorrelation Test Result

Model Summary ^b			
Model	R	Std. Error of the Estimate	Durbin-Watson
1	.449 ^a	.19923	1.992

a. Predictors: (Constant), %SIZE, %ROA, %THIN
b. Dependent Variable: %ETR
Source : Primary Data Processed, 2023

The data is considered to have no autocorrelation when the Durbin Watson value is placed in between du to 4-du. The du value of 1,6889 is obtained from the Durbin Watson value distribution table based on k = 3 and N = 60 with 5% significance. Based on table 5, the Durbin-Watson value is 1,992, therefore:

$$Du (1,6889) < Durbin Watson (1,992) < 4-du (2,3111) \dots (1)$$

Hence, there's no autocorrelation in the data used for this study, it means that there is no correlation between the variables used.

Multiple Linear Regression Analysis Result

In multiple linear regression analysis, Sugiyono (2010) elucidates that it is used to test the influence of multiple independent variables on its dependent variable. This regression model is adopted from Tang and Firth (2012). In this research context, the multiple linear regression equation employed is as follows:

$$Y = \alpha + BTHIN + BROA + BSIZE + \epsilon \dots (2)$$

- Information:
- Y = Tax Avoidance
 - α = Constant term or intercept of the regression equation
 - BTHIN = Coefficient of Thin Capitalization (the ratio Between total debt and total equity of the company)
 - BROA = Coefficient of Return on Asset (the ratio of pre-tax income to total assets of the company)
 - BSIZE = Coefficient of company size (natural logarithm of company's total assets)
 - ϵ = Error term, depicting the residual or error within the model.

Table 5 Multiple Linear Regression Analysis Result

Model	Coefficients ^a				Sig.	Collinearity Statistic	
	Unstandardized Coefficients	Standardized Coefficients	t	Sig.		Tolerance	VIF
	B	Beta					
Const	.101	.478	.212	.833			
%thin	-.002	.005	-.045	-.372	.711	1.009	
%roa	-1.330	.359	-.444	-3.702	.000	1.008	
%size	.011	.018	.074	.616	.540	1.002	

a. Dependent Variable: %ETR
Source : Primary Data Processed, 2023

Based on table 6, we have the following multiple linear regression equation:

$$CETR = 0,101 - 0,002THIN - 1,330ROA + 0,011SIZE \dots (3)$$

The above equation can be interpreted as follow:

- a. Constant term (α) is positive with the value of 0,101. This means that if thin capitalization, return on asset and company size have constant value, then that means tax avoidance value (ETR) in the transportation and logistics sector in the 2019-2022 year will increase by 0,101.
- b. Thin capitalization regression coefficient value is -0,002. This means that there's an inverse relationship between tax avoidance and thin capitalization. If thin capitalization increases by 1%, ceteris paribus, then tax avoidance will decrease by 0,2%.
- c. RoA regression coefficient value is -1.330. This means that there's an inverse relationship between tax avoidance and return on assets. If return on asset increases by 1%, ceteris paribus, then tax avoidance will decrease by 133%.
- d. Company size regression coefficient value is 0,011. This means that there's a positive relationship between tax avoidance and company size. If company size increases by 1%, ceteris paribus, then tax avoidance will increase by 1,1%.

Hypothesis Test Result

Hypothesis testing is conducted to ascertain the validity of the research hypotheses (H0). The testing is performed using several methods as follows:

1. Partial Test Result (t-Test)

T-Test is employed to determine partially whether individual independent variables influence the dependent variable. Partial test is used to determine the impact of each dependent variable to independent variable. The significance value used in this study is 5% (0,05). The decision-making rule used for this t-test is:

- a. If the significance value is less than 0,05 or t-calculated is greater than t-table, then dependent variables influence the independent variable.
- b. If the significance value is greater than 0,05 or t-calculated is less than t-table, then dependent variables have no influence on the independent variable.

$$t\text{-table value} = t(\alpha/2; n-k-1) = t(0,025; 56) = 2,00324 \dots (4)$$

Information:

n = total sample = 60

k = total dependent variables = 3

Therefore the dependent variables test results can be explained by the following:

a. Thin Capitalization Hypothesis

It's known that the significance value for thin capitalization to tax avoidance is 0,711 > 0,05 and the t-calculated value is 0,372 < t table 2,00247. Therefore it's concluded that thin capitalization has no influence on tax avoidance. Our finding aligns closely with the study conducted by Rahmah and Sovita (2023) where they conclude that thin capitalization has insignificant influence on tax avoidance, which parallelly contradicts the study conducted by Gouwvara and Susanty (2023).

b. Return on Asset Hypothesis

It's known that the significance value for return on asset to tax avoidance is 0,00 < 0,05 and the t-calculated value 3,702 > t table 2,00247. Therefore, in agreement to the previous studies mentioned in the theoretical framework, our analysis substantiates that return on assets has influence on tax avoidance.

c. Company Size Hypothesis

It's known that the significance value for company size to tax avoidance is 0,540 > 0,05 and t-calculated value 0,616 < t table 2,00247. Echoing the outcomes reported in a study conducted by Stawati (2020), our study reaffirms that company size has no influence on tax avoidance, which is in contrast with the study conducted by Darmawan and Sukartha (2014).

2. Simultaneous Test Results (F-Test)

F-Test is employed to determine collectively whether the independent variables simultaneously influence the dependent variable collectively. Simultaneous test is used to determine the influence of dependent variables simultaneously on the independent variable. The decision-making rules for F test are as follow:

- a. If the significance value is less than 0,05 or F calculated is greater than F table, then dependent variables simultaneously influence the independent variable.
- b. If the significance value is greater than 0,05 or F calculated is less than F table, then dependent variables simultaneously have no influence on the independent variable.

$$F\text{ table value} = F(k; n-k) = F(3; 57) = 2,766 \dots (5)$$

Information:

n = total sample = 60

k = total dependent variable = 3

Table 6 Simultaneous Test Result

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	.562	3	.187	4.720	.005 ^b
Residual	2.223	56	.040		
Total	2.785	59			

a. Dependent Variable: %ETR

b. Predictors: (Constant), %SIZE, %ROA, %THIN

Source : Primary Data Processed, 2023

Based on table 7, it's known that the significance value for the influence of thin capitalization, return on asset, and company size simultaneously on tax avoidance is 0,005 < 0,05 and F calculated is 4,72, which is greater than F table of 2,766. Therefore it's concluded that thin capitalization, return on asset and company size simultaneously influence tax avoidance.

Determination Coefficient Result

Determination coefficient is employed to determine the percentage of influence given by dependent variables simultaneously to the independent variable. The coefficient determination value is 0 and 1. The following table shows the test results for determination coefficient in this study:

Table 7 Determination Coefficient Test Result

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.449 ^a	0.202	.1592	.19923	1.992

a. Predictors: (Constant), %SIZE, %ROA, %THIN

b. Dependent Variable: %ETR

Source : Primary Data Processed, 2023

Based on table 8, it's shown that from the result of regression analysis as a whole it is pointed out that the R square value is 0,202. That means that the influence of thin capitalization, return on asset, and company size simultaneously is 20,2%. Meanwhile the rest 79,80% is from other variables that are not included in this study.

CONCLUSSION

Our multiple linear regression analysis concludes that thin capitalization and return on asset has an inverse relation with tax avoidance, meanwhile company size has a positive relation on tax avoidance. We also discover that return on assets singularly has influence on tax avoidance, whereas thin capitalization, return on asset and company size collectively has 20,2% influence on tax avoidance. The findings of this study corroborate the findings of previous studies mentioned in this research, whilst at the same time also contravening some of them, as can be seen in the discussion of the results.

This research distinguishes itself by addressing a critical gap in existing literature on tax avoidance, shedding light on previously unexplored sector and presenting novel insights into the interplay between thin capitalization, return on assets, company size and tax avoidance in the transportation and logistics industry. The methodology we employed offers fresh perspective and contributes new empirical evidence on the tax avoidance phenomenon in Indonesia.

Prospective researchers should broaden the sample beyond Indonesia and explore other tax avoidance indicators to ensure the durability of the results and provide a more holistic understanding of the tax avoidance phenomenon. So, our results should be interpreted with caution and we encourage further empirical research in this area.

Various implications arise from the research results concerning the effects of thin capitalization, return on asset, and company size on tax avoidance within Indonesia's transportation and logistics industry. Tax authorities must understand the tax avoidance mechanism and the determinant factors. The findings that thin capitalization, return on asset and company size can influence tax avoidance depending on the method of calculation highlight the need to tailor examination and audit approaches. Hence, it will be simpler for tax authorities to identify potential tax avoidance cases within this industry. Countries with similar company structures and business processes can benefit by examining these variables in their own respective context, potentially improving their tax regulatory frameworks. Tax authorities could initiate or improve existing internal control methods to detect tax avoidance based on the variables employed in this study and/or other variables, approach it on a sectoral basis, therefore creating a benchmark that can be used to derive insights and formulate a more robust evidence-based tax policy for specific sectors.

REFERENCE

Books:

- Ghozali, I. (2013). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 21 Update PLS Regresi*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hanke, J., & Reitsch, A. (1998). *Business Forecasting*, Sixth Edition. London: Prentice-Hall International Ltd.
- Indriantoro, N., & Supomo, B. (1999). *Metodologi Penelitian Bisnis untuk Akuntansi & Manajemen*. Edisi Pertama. Yogyakarta: BPFE.
- Sugiyono. (2010). *Metode penelitian kuantitatif, kualitatif, dan r&d*. Bandung: Alfabeta.
- Sugiyono. (2017). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: Alfabeta.
- Wijaya, S., & Rahayu, F. D. (2021). *Penghindaran Pajak Agresivitas Transfer Pricing, Negara Lindung Pajak, dan Kepemilikan Institusional*. Bogor: Guepedia.

Serial/journal article (online):

- Campbell, S., et al. (2020). Purposive sampling: Complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652-661.
- Darmawan, I., & Sukartha, I. M. (2014). Pengaruh Penerapan Corporate Governance, Leverage, Return on Assets, dan Ukuran Perusahaan pada Penghindaran Pajak. *E-Jurnal Akuntansi Universitas Udayana*, 9.1, 143-161.
- Dewi, A. P. (2022). The Effect of Return on Assets and Debt to Equity Ratio on Tax Aggressivity: Total Asset as Moderating Variable. *Jurnal Riset Akuntansi Terpadu*, 15(2), 254-266.
- Gouwvara, N., & Susanty, M. (2023). Pengaruh Thin Capitalization dan Faktor Lainnya terhadap Penghindaran Pajak. *E-Jurnal Akuntansi TSM*, 291-204.
- Hanlon, & Heitzman. (2010). A Review of Tax Research. *Journal of Accounting and Economics*, 50(2-3), 127-178.
- Henderson, R. M. (2021). Changing the purpose of the corporation to rebalance capitalism. *Oxford Review of Economic Policy*, 37(4), 838-850.
- Irawati, T. T. (2021). Pengaruh leverage dan return on asset terhadap tax avoidance. *Jurnal Bimsak*, 1(2), 51.
- Luyckx, J. S. (2022). Learning from Alternatives: Analyzing Alternative Ways of Organizing as Starting Points for Improving the Corporation. *Research in the Sociology of Organizations*, 209-231.
- Panjalusman, P. A. (2018). Pengaruh Transfer pricing terhadap penghindaran pajak. *Jurnal Pendidikan Akuntansi & Keuangan*, 6(2), 105.
- Paramita, A., Ardiansah, M., Delyuzar, R., & Dzulfikar, A. (2022). The Analysis of Leverage, Return on Assets, and Firm Size on Tax Avoidance. *Accounting Analysis Journal*, 11(03), 186-195.
- Prayoga, A., Neldi, M., & Sari, D. P. (2019). Pengaruh Thin Capitalization, Transfer Pricing dan Capital Intensity terhadap Penghindaran Pajak pada Perusahaan Manufaktur. *Journal of Business and Economics (JBE)*, 20-25.
- Rahmah, N., & Sovita, I. (2023). Pengaruh Thin Capitalization, Return On Asset dan Ukuran Perusahaan terhadap Penghindaran Pajak (Studi kasus pada perusahaan manufaktur konsumsi sub sektor makanan dan minuman

- listing di Bursa Efek Indonesia periode 2018-2022). *Jurnal Akuntansi Keuangan dan Bisnis*, 1 (3), 141-157.
- Rejeki, S., Wijaya, A., & Amah, N. (2019). Pengaruh Kepemilikan Institusional Kepemilikan Manajerial dan Proporsi Dewan Komisaris Terhadap Penghindaran Pajak dan Transfer Pricing Sebagai Variabel Moderasi (Studi Pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2014-2017). *SIMBA : Seminar Inovasi Manajemen, Bisnis, dan Akuntansi I*, -.
- Richardson, G., Taylor, G., & Lanis, R. (2013). Determinants of Transfer Pricing Aggressiveness: Empirical Evidence from Australian Firms. *Journal of Contemporary Accounting & Economics*, 136-150.
- Sari, D. A. (2020). The Effect of Return On Asset and Institutional Ownership on Tax Avoidance. *Palarch's Journal Of Archaeology Of Egypt/Egyptology*, 17(4), 2968-2979.
- Slemrod, J. (2004). The economics of corporate tax selfishness. *National Tax Journal*, 57(4), 877-899.
- Stawati, V. (2020). Pengaruh Profitabilitas, Leverage, dan Ukuran Perusahaan terhadap Penghindaran Pajak. *Jurnal Akuntansi dan Bisnis: Jurnal Program studi Akuntansi*, 6 (2), 2443-3071.
- Tang, T. Y. (2012). Earnings persistence and stock market reactions to the different information in book-tax differences: Evidence from China. *The International Journal of Accounting*, 47, 369-397.
- Wang, F. X. (2020). Corporate tax avoidance: A literature review and research agenda. *Journal of Economic Surveys*, 34(4), 793-811.
- Retrieved September 19, 2023, from <https://www.kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Kinerja-Penerimaan-Negara-Luar-Biasa>
- Ministry of Finance of the Republic of Indonesia. (2023, July 12). *Menkeu Optimis Target Pajak Tahun Ini Tercapai dan Cetak Hatrick*. Jakarta, DKI Jakarta, Indonesia. Retrieved December 19, 2023, from <https://www.kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Menkeu-Optimis-Target-Pajak-Tercapai-Hatrick>
- OECD. (2023, - -). *Revenue Statistics in Asia and the Pacific 2023 — Indonesia*. Retrieved September 19, 2023, from [www.oecd.org; https://www.oecd.org/tax/tax-policy/revenue-statistics-asia-and-pacific-indonesia.pdf](https://www.oecd.org/tax/tax-policy/revenue-statistics-asia-and-pacific-indonesia.pdf)
- Redaksi DDTC News. (2017, August 31). *Pajak atas Perusahaan Penerbangan dalam Negeri*. Retrieved September 19, 2023, from <https://news.ddtc.co.id/>; <https://news.ddtc.co.id/pajak-atas-perusahaan-penerbangan-dalam-negeri-10845>

Statutory Regulation Reference :

- Ministry of Finance of the Republic of Indonesia. (2015). *Finance Minister Regulation Number 169/PMK.010/2015*. DKI Jakarta, Indonesia.
- Indonesia. (2021). *Law Number 7 of 2021 concerning Income Tax* DKI Jakarta, Indonesia.

Internet – organization/corporate author:

- Indonesia's Central Agency of Statistics. (2023, October 2). *The tourism industry continues to recover, as shown by the 68.92 percent rise in foreign visitor arrivals in August 2023 over the same month last year*. Retrieved December 26, 2023, from [www.bps.go.id: https://www.bps.go.id/en/pressrelease/2023/10/02/1982/the-tourism-industry-continues-to-recover-as-shown-by-the-68-92-percent-rise-in-foreign-visitor-arrivals-in-august-2023-over-the-same-month-last-year.html](https://www.bps.go.id/en/pressrelease/2023/10/02/1982/the-tourism-industry-continues-to-recover-as-shown-by-the-68-92-percent-rise-in-foreign-visitor-arrivals-in-august-2023-over-the-same-month-last-year.html)
- Kurniati, D. (2023, June 29). *Setoran Pajak Sektor Keuangan dan Transportasi Terus Menguat*. DDTC New. Jakarta, DKI Jakarta, Indonesia. Retrieved September 19, 2023, from <https://news.ddtc.co.id/setoran-pajak-sektor-keuangan-dan-transportasi-terus-menguat-1795383>
- Merk, O. (2021). *Commentary: Taxation May Be Global Shipping's Upcoming Game Changer*. -: *The Wall Street Journal*. Retrieved December 26, 2023, from <https://www.wsj.com/articles/commentary-taxation-may-be-global-shippings-upcoming-game-changer-11610888401>
- Ministry of Finance of the Republic of Indonesia. (2023, January 4). *Menkeu : Kinerja Penerimaan Negara Luar Biasa Dua Tahun Berturut-turut*. Jakarta, DKI Jakarta, Indonesia.