THE IMPACT OF PROFITABILITY, LEVERAGE, AND FIRM SIZE TOWARD TAX AVOIDANCE IN COAL COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE

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ABSTRACT

The objective of this research is to analyze the impact of profitability, leverage, and firm size toward tax avoidance in coal companies listed on the Indonesia Stock Exchange for the period of 2020 to 2022. The independent variables used in this research are profitability measured by Return on Assets Ratio (RoA), leverage measured by Debt-to-Equity Ratio (DER) and firm size measured by total assets. Meanwhile, the dependent variable in this research is tax avoidance measured by Effective Tax Rate (ETR). The population in this research is coal companies listed on the Indonesia Stock Exchange for the period of 2020 to 2022, in which the samples are determined by using the Purposive Sampling Method, resulting in 11 companies selected with a total of 33 samples. The data analysis method used descriptive statistics, classical assumption tests, multiple linear regression, and hypothesis tests, which are processed utilizing SPSS 26. The research result shows that profitability and leverage partially do not have significant impact toward tax avoidance. Meanwhile, firm size partially has a significant impact toward tax avoidance. Moreover, profitability, leverage, and firm size simultaneously have a significant impact toward tax avoidance.

Keywords: Profitability, Leverage, Firm Size, Tax Avoidance

ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh profitabilitas, leverage, dan ukuran perusahaan terhadap praktek penghindaran pajak pada perusahaan batubara yang terdaftar di Bursa Efek Indonesia (BEI) periode 2020 sampai 2022. Variabel bebas yang digunakan pada penelitian ini adalah profitabilitas yang diukur dengan return on assets (RoA), leverage yang diukur dengan debt to equity ratio (DER), dan ukuran perusahaan yang diukur dengan jumlah total aset. Variabel terikat dalam penelitian ini adalah penghindaran pajak yang diukur dengan tarif pajak efektif (ETR).Populasi penelitian ini adalah perusahaan batubara yang terdaftar di Bursa Efek Indonesia (BEI) periode 2020 sampai 2022. Jenis determinasi sampel yang digunakan adalah Purposive Sampling Method, yang menghasilkan 11 perusahaan terpilih sebagai sampel penelitian dengan total 33 sampel data. Adapun penelitian ini menggunakan uji statistik deskriptif, uji asumsi klasik, analisis regresi linear berganda, dan uji hipotesis, yang diolah melalui Statistical Product and Service Solutions 26 (SPSS 26).Hasil penelitian ini menunjukkan bahwa profitabilitas dan leverage secara parsial tidak berpengaruh signifikan terhadap penghindaran pajak, sedangkan ukuran perusahaan secara parsial berpengaruh signifikan terhadap penghindaran pajak. Selanjutnya, profitabilitas, leverage, dan ukuran perusahaan secara simultan berpengaruh signifikan terhadap penghindaran pajak.

Keywords: *Profitabilitas,* Leverage*, Ukuran Perusahaan, Penghindaran Pajak*

1.   INTRODUCTION

Based on the Ministry of Energy and Mineral Resources, commodity price of coal was reported to have positive growth from 2020 to 2022. It then leads to a larger contribution to the companies' revenue, which normally will lead to the rise in the state's revenue collected through tax revenue (Income Tax Law Article 22) and non-tax revenue as well (Kemenkeu, 2021).

However, there is a contradictory perspective in taxes between government as tax collector in one side and taxpayer in other side. Taxpayers tend to view taxes as the additional burden incurred which will lessen their earned profits. Therefore, taxpayers, particularly entity taxpayers will try to find a way to do tax planning for minimizing the income tax payable (Mariana et al., 2021). One of the practices usually used is tax avoidance, by exploiting the loopholes in the tax laws and regulations. Although the actions made are opposing the intention of the government to earn revenues as much as possible through the tax laws, tax avoidance is not considered as an illegal practice that violates the laws stipulated.

There were some factors presumed to influence the tax avoidance. First, profitability as a measurement to assess the company's ability in generating profits. One of the ratios that can be used in calculating the company's profitability is Return on Assets (RoA), that indicates the net profit of a company generated from the total capital provided by all stakeholders (Schmidlin, 2014). From this ratio, it expresses how much profits earned in each unit of assets (Drake & Fabozzi, 2012).

The second variable is leverage, which is a measurement of how much a company utilizes debts (borrowed funds) to finance its operational (Forbes, 2023). The strategy of borrowing funds is expected to enhance the potential return on investment of a company notwithstanding giving up on the company's equity. Moreover, as debts contain cost in form of interest, the company's income tax expense may decrease as the interest is deductible expense. One of the most used ratios to calculate leverage is Debt-to-Equity Ratio (DER), indicating the comparison between total debts to total equity.

The third is firm size, which represents the size of a company through the calculation of total assets owned, sales generated, outstanding shares, or number of employees. Based on its measurement name, assets-proxied firm size indicates the classification of companies based on the total assets owned, as a company with larger total assets is believed to have a wider scope of operational activities, which will lead to the larger costs incurred that can be used to do tax planning, such as utilizing depreciation expenses to deduct the taxable income. (Mulyati et al., 2019).

Based on the explanation above, the writer decided to write this paper with title "**The Impact of Profitability, Leverage, and Firm Size toward Tax Avoidance in Coal Companies Listed on the Indonesia Stock Exchange**"

2.   LITERATURE REVIEW
2.1   Agency Theory

Agency theory is the principle that explains the agency relationships between principal and agent, who are delegated to carry out the responsibilities on the principal's behalf (Jensen & Meckling, 1976). The existence of this theory is expected to resolve issues on two defined problems in the principal-agent relationship. Firstly, assuming that both principal and agent are utility maximisers, there will be conflicts of interest between both parties, as it is believed that agent will have the tendency to act according to his respective interest, not the principal's. Moreover, the principal also has limited access to see and control over the agent's behavior which

may be caused by the divergent information and lead to the asymmetric information. Second is the different attitude on risk preference, that will cause the principal to oppose the agent's decision making (Eisenhardt, 1989).

2.2   Tax Avoidance

Tax avoidance is practiced by the taxpayers to reduce the tax liabilities by taking advantage of the loopholes in the existing tax regulations. The framework of tax avoidance is legally unlawful, but not morally accepted as it will cause losses to the state's tax revenue which might be detrimental for the government in obtaining sufficient funds to carry out its mandate by providing public infrastructure to the society.

In this study research, the writer will use the effective tax rate (ETR) to measure the tax avoidance, which shows the ratio between income tax expense with the taxable income during a specified period.

2.3   Profitability

According to Drake & Fabozzi (2012), profitability ratios are used to evaluate a company's ability in generating profits, as the orientation of the company's goal as well as for the company's sustainability to survive in the global market, through the utilization of the company's resources. Moreover, profitability ratio is used to evaluate the company's effectiveness and efficiency in performance management, in which it is indicated from the result of profits earned by the company.

One of the ratios used in calculating the profitability of a company is Return on Assets (RoA), which calculates how much the assets used in generating a unit of profit. The higher the RoA of a company is, the better performance of the company is considered in managing its assets (Wirawan & Yuniarwati, 2022).

In this study research, the writer will use Return on Assets (RoA) to measure the profitability, which shows the ratio between net income earned with the total assets of a company.

2.4   Leverage

Sources of funds to finance the assets of a company can be through debt or equity. According to Schmidlin (2014), both debt and equity financing have their own advantages and disadvantages. Companies that focus more on equity financing rather than debt tend to show more conservative financial conditions and easier to use and manage the funds with a lower financial risk. However, the disadvantage is that the amount sourced from the equity might only be limited to the number of what shareholders invested.

On the other hand, the companies that focus more on debt financing, as in taking loans as sources of financing, the companies are possibly to obtain larger funds to manage their operational activities without using their owned capital. Furthermore, debts have the advantage of reducing the tax burden through interests (tax-deductible) (Schmidlin, 2014). However, a higher debts utilization may lead to an increase in financial risk as interest (costs of borrowing) may increase and the amounts owed will have to be paid back.

In this study, the writer uses Debt-to-equity to measure the leverage, which shows the ratio between total liabilities owed with the total equity of a company. According to Davidson, W. (2020), DER measures the financial risk or the eligibility of a company for borrowing 'new' loans.

2.5   Firm Size

Firm size is a scale to measure the size of a company through its total assets owned, total sales generated, number of employees, and stock market value. A company with a larger size will tend to have larger business scope, in which the company is more likely to have more complex operations. According to Nasution et al. (2022), the larger total assets, sales, or net sales in a company, shows larger firm size. Further, larger companies tend to have broader accessibility to be able to survive and sustain in the global economy (Utami & Supriadi, 2023).

In this study research, the writer will assess the total assets as the measurement of a company's size, transformed by using natural logarithm computation to simplify the amount of total assets without changing the original value.

2.6   Research Model

The relationship between independent and dependent variables can be expressed in the following scheme:
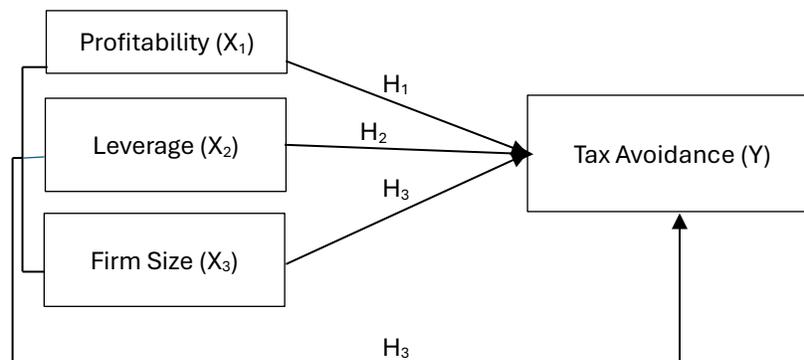
Figure 1 Research Model
Source: Prepared by the Writer (2025)

Based on the research model above, three hypotheses are proposed as follows:

H_1:   Profitability partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange

H_2:   Leverage partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange

H_3:   Firm size partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange

H_4:   Profitability, Leverage, and Firm size simultaneously have a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange

3.   RESEARCH METHODOLOGY
3.1   Research Design

This study is conducted by using the quantitative method, which is utilized to collect data and information and draw a numerical-based conclusion based on numerical analysis based on the data provided (Albers, 2017). The analysis conducted is to determine the impact of independent variables toward dependent variable that are initiated in gathering data, measuring, analysing, and verifying the measurements made with trends and relationships (Watson, 2015).

3.2   Population and Sample

 Gupta (2021) defined population is defined as a collection of all individuals, numbers, elements, or entities that possess some characteristics of interest. The population in this research is coal companies that are listed on the Indonesia Stock Exchange for the period from 2020 to 2022.

Sample is selected by purposive sampling method, which is according to Black (2019), defined as the selection of samples based on the researcher's judgment in which it is believed that the samples chosen will be more likely to represent the objectives of the research that will both cost and time-saving.

The criteria used in determining the samples from the population are as follows:
1. Coal companies listed on the Indonesia Stock Exchange from 2020 to 2022.
2. Coal companies listed on the Indonesia Stock Exchange that have never had equity deficiency from 2020 to 2022.
3. Coal companies listed on the Indonesia Stock Exchange that had income tax expense from 2020 to 2022.
4. Coal companies listed on the Indonesia Stock Exchange that did not suffer losses from 2020 to 2022.
5. Coal companies listed on the Indonesia Stock Exchange that are reported in United States Dollar (USD).

3.3   Data Collection and Analysis Method

The data of this conducted research is collected from secondary data, which is the financial reports of the coal companies which are collected from the Indonesia Stock Exchange website or respective companies' websites. There are also some relevant articles, official news websites, and written media that were used to support the data collection, which were processed by using the Statistical Program for Social Science (SPSS) software.

3.4   Operational Variable Definition and Variable Measurement

Variable is defined as anything that can be measured in quantitative research (Watson, 2015). The operational definitions of all variables are as follows.

Tabel 1 Operational Variable

Variables	Definition	Indicator	Scale
Profitability (X_1)	Profitability ratio is used to measure the company's ability in generating profits during a specified period (Mulyati et al., 2019)	$RoA = \dfrac{Net\ Income}{Profit\ before\ Taxes}$	Ratio
Leverage (X_2)	Leverage ratio is used to measure how much a company's assets are finance by debts (Fauzan et al., 2019)	$DER = \dfrac{Total\ Liabilities}{Total\ Equity}$	Ratio
Firm Size (X_3)	Firm size is a metric used to measure and classify the size of company (Sari et al., 2021)	$Firm\ Size = Ln\ (Total\ Assets)$	Ratio

Tax Avoidance (Y)	Tax avoidance is an action taken by taxpayers to reduce tax liabilities by taking advantage of the loopholes in the tax regulations without violating the applicable tax laws (Sofiamanan et al., 2023)	$ETR = \dfrac{Income\ Tax\ Expense}{Profit\ before\ Taxes}$	Ratio

Source: Compiled by the Writer (2025)

4. RESULT
4.1 Sample Size Determination
The sample criteria are as follow:

Table 2 Determination of Sample

No	Determination of Sample	Amount
1	Coal companies listed on the Indonesia Stock Exchange for the period of 2020 – 2022	33
2	Less: Coal companies listed on the Indonesia Stock Exchange that have ever had equity deficiency during the period of 2020 – 2022	(1)
3	Less: Coal companies listed on the Indonesia Stock Exchange that inconsistently have income tax expense during the period of 2020 – 2022	(1)
4	Less: Coal companies listed on the Indonesia Stock Exchange that suffered losses at least one year in the period of 2020 – 2022	(18)
5	Less: Coal companies listed on the Indonesia Stock Exchange that reported the financial statements in Indonesian Rupiah (IDR)	(2)
	Number of coal companies selected as sample	11
	Total Samples (11 companies x 3 years)	33

Source: Prepared by the Writer (2025)

4.2 Descriptive Statistics
The results of descriptive statistics tests are as follows:

Table 3 Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Profitability	33	.013	.616	.22515	.199737
Leverage	33	.094	3.766	.82509	.753837
Firm Size	33	18.413	23.101	20.41562	1.256809
Tax Avoidance	33	.050	.479	.21670	.081384
Valid N (listwise)	33				

Source: Data Processed with SPSS 26 (2025)

Based on Table 3 above, the minimum value in profitability, measuring by return on assets (RoA) is 0.013, which were obtained from PT Astrindo Nusantara Infrastruktur Tbk (BIPI). Meanwhile, the maximum value of profitability is 0.616, which was obtained by PT Golden Energy Mines Tbk (GEMS).

The minimum value in leverage, measuring by debt-to-equity ratio (DER), is 0.094, which was obtained from PT Harum Energy Tbk (HRUM). Meanwhile, the maximum value of leverage is 3.766, which was obtained by PT Baramulti Suksessarana Tbk (BSSR).

The minimum value in firm size, measuring the natural logarithm of total assets, is 18.413, which was obtained from PT Trans Power Marine Tbk (TPMA). Meanwhile, the maximum value of firm size is 23.101, which was obtained by PT Adaro Energy Indonesia Tbk (ADRO).

The minimum value in tax avoidance, measured by the effective tax rate (ETR), is 0.050, which was obtained from PT Trans Power Marine Tbk (TPMA). Meanwhile, the maximum value of tax avoidance is 0.479, which was obtained by PT Indo Tambangraya Megah Tbk (ITMG).

4.3 Classical Assumption Test
4.3.1 Normality Test
Normality test is done by Kolmogorov-Smirnov test which result is as below:

Table 4 Result of Normality Test Using Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		33
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	.06622843
Most Extreme Differences	Absolute	.139
	Positive	.139
	Negative	-.089
Test Statistic		.139
Asymp. Sig. (2-tailed)		.103[c]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance

Source: Data Processed with SPSS 26 (2025)

Based on the Table 4, the significance value of Asymp. Sig. (2-tailed) is 0.103 or greater than 0.05 (0.103 > 0.05), indicated that the residual data distribution passed the test. Therefore, it is concluded that the regression model has passed the normality test.

4.3.2 Multicollinearity Test

The multicollinearity test is conducted by testing Tolerance Value and VIF (Variance Inflation Factor),. The following result of the test is as follows:

Table 5 Multicollinearity Test

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-.536	.201		-2.667	.012		
Profitability	-.023	.064	-.055	-.355	.725	.935	1.069
Leverage	.012	.017	.108	.700	.489	.953	1.049
Firm Size	.037	.010	.566	3.673	.001	.961	1.040
a. Dependent Variable: Tax Avoidance							

Source: Data Processing from SPSS 26 (2025)

As all independent variables individually have tolerance value higher than 0.1 and VIF lower than 10, it is concluded that the regression model has passed the multicollinearity test.

4.3.3 Autocorrelation Test

Autocorrelation test is conducted by Runs Test to see how strongly correlated the residuals are in the regression model.

The following is the result:

Table 6 Result of AutocorrelationTest

Runs Test	
	Unstandardized Residual
Test Value[a]	-.00193
Cases < Test Value	16
Cases >= Test Value	17
Total Cases	33

Number of Runs	23
Z	1.776
Asymp. Sig. (2-tailed)	.076
a. Median	

Source: Data Processing from SPSS 26 (2025)

As shown in Table6, the Asymptotic Significance (2-tailed) value is 0.076, which is greater than 0.05 (0.076 > 0.05). Therefore, the result concludes that the regression model has passed the autocorrelation test.

4.3.4 Heteroscedasticity Test
The heteroscedasticity test is conducted by using a Glejser Test. The result of the test is as follows:

Table 7 Heteroscedasticity Test Using Glejser Test

Coefficientsᵃ					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.181	.136		1.328	.194
Profitability	-.047	.043	-.196	-1.091	.284
Leverage	-.016	.011	-.256	-1.434	.162
Firm Size	-.005	.007	-.144	-.812	.424
a. Dependent Variable: ABS_RES					

Source: Data Processing from SPSS 26 (2025)

Based on Table 7, the significance value of profitability is 0.284, leverage is 0.162 and firm size is 0.424 which indicates that all the independent variables have the significance value of greater than 0.05 (> 0.05). Therefore, it is concluded that the regression model has passed the heteroscedasticity test.

4.4 Multiple Linear Regression Analysis
Multiple linear regression analysis is conducted to measure the level of impact between independent variables toward dependent variable. The result is shown in the table below:

Table 9 Multiple Linear Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
11 (Constant)	-.536	.201		-2.667	.012
Profitability	-.023	.064	-.055	-.355	.725

Leverage	.012	.017	.108	.700	.489
Firm Size	.037	.010	.566	3.673	.001
a. Dependent Variable: Tax Avoidance					

Source: Data Processing from SPSS 26 (2025)

From Table 9, multiple linear regression is formulated as below:

$$ETR = -0.536 - 0.023X1 + 0.012X2 + 0.037X3 + \varepsilon$$

The interpretation of the regression model is as follows:
1. The constant value (α) is -0.536, which assumes that if Profitability, Leverage, and Firm Size are remaining constant or having the value of zero, the value of Effective Tax Rate is -0.536.
2. The coefficient of Profitability (proxied by Return on Assets) in the regression model is -0.023, which shows the negative impact toward Effective Tax Rate and indicates that a unit increase in the Profitability (RoA) will result in a 0.023 decrease in Effective Tax Rate with the assumption that the other variables (Leverage and Firm Size) remain constant or zero.
3. The coefficient of Leverage (Debt-to-equity Ratio) in the regression model is 0.012, which shows the positive impact toward Effective Tax Rate and indicates that a unit increase in the Leverage (DER) will result in a 0.012 increase in Effective Tax Rate with the assumption that the other variables (Profitability and Firm Size) remain constant or zero.
4. The coefficient of Firm Size in the regression model is 0.037, which shows the positive impact toward Effective Tax Rate and indicates that a unit increase in the Firm Size will result in a 0.037 increase in Effective Tax Rate with the assumption that the other variables (Leverage and Profitability) remain constant or zero.

4.5   Partial Hypothesis Test (t-test)
The t-test result of each independent variables used are as follows:

Table 10 Result of Partial t-test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.536	.0201		-2.667	.012
	Profitability	-.023	.064	-.055	-.355	.725
	Leverage	.012	.017	.108	.700	.489
	Firm Size	.037	.010	.566	3.673	.001
a. Dependent Variable: Tax Avoidance						

Source: Data Processing from SPSS 26 (2025)

Based on Table 10, the - t_{Count} obtained for Profitability (X_1) is -0.355, which is larger than -t_{Table} (-0.355 > -2.042). In addition, the significance value is 0.725, which is greater than 0.05. It means that Profitability has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the year of 2020 to 2022. As a result, the first hypothesis stating that Profitability partially has a significant impact toward tax avoidance (H_1) is rejected.

The result is in line with the previous research conducted by Mulyati et al. (2019) and Wirawan and Yuniarwati (2022), but not by Lestari & Solikhah (2019), Fauzan et al. (2019), Mariana et al. (2021), Sofiamanan et al. (2023), Danardhito et al. (2023).

In Leverage (X_2) t-test result, the t_{Count} obtained is 0.700, which is smaller than t_{Table} (0.700 < 2.042). In addition, the significance value is 0.489, which is greater than 0.05. It means that Leverage has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the year of 2020 to 2022. As a result, the second hypothesis stating that Leverage partially has a significant impact toward tax avoidance (H_2) is rejected. The result is in line with previous research by Prapitasari & Safrida (2019), Sari et al. (2021), Mariana et al. (2021), and Nasution et al. (2022), but not with Fauzan et al. (2019), Mulyati et al. (2019) and Danardhito et al. (2023).

In Firm Size (X_3) t-test result, the t_{Count} obtained is 3.673, which is greater than t_{Table} (3.673 > 2.042). In addition, the significance value is 0.001, which is lower than 0.05. It means that Firm Size has a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the year of 2020 to 2022. As a result, the third hypothesis stating that Firm Size partially has a significant impact toward tax avoidance (H_3) is accepted. The result is in line with the previous research conducted by Sari et al. (2021), Nasution et al. (2022), and Sofiamanan et al. (2023) but not by Lestari and Solikhah (2019) and Prapitasari and Safrida (2019).

4.6   Simultaneous Hypothesis Test (f-test)
The f-test result of this research is as follow:

Table 11 Simultaneous Significant Test

ANOVAᵃ					
Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.072	3	.024	4.931	.001ᵇ
Residual	.140	29	.005		
Total	.212	32			
a. Dependent Variable: Tax Avoidance					
b. Predictors: (Constant), Firm Size, Leverage, Profitability					

Source: Data Processing from SPSS 26 (2025)

Based on Table 11, the F_{count} obtained is 4.931, which is greater than F_{table} (4.931 > 2.922). In addition, the significance value is 0.001, which is lower than 0.05. It interprets that Profitability, Leverage, and Firm Size simultaneously has a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the year of 2020 to 2022. As a result, the fourth hypothesis developed in chapter two which stated that Profitability, Leverage, and Firm Size simultaneously have a significant impact toward Tax Avoidance (H_4) is accepted.

4.7   Coefficient of Determination Test
The result of the coefficient of determination is as follows:

Table 12 Coefficient of Determination Test

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.581[a]	.338	.269	.069570
a. Predictors: (Constant), Firm Size, Leverage, Profitability				
b. Dependent Variable: Tax Avoidance				

Source: Data Processing from SPSS 26 (2025)

Shown in Table 12, the adjusted R^2 value is resulted in 0.269 (26.9%). This indicates that if taken as a set or group, Profitability, Leverage, and Firm Size simultaneously account for 26.9% of tax avoidance variance in coal companies listed on the Indonesia Stock Exchange during the year of 2020 to 2022. Meanwhile, the remaining 73.1% are influenced by the other variables that are not examined in this study research.

4.8   Discussion
4.8.1   The Impact of Profitability on Tax Avoidance

In Partial significance test (t-test), the $-t_{Count}$ value results in -0.355, which is greater than the $-t_{table}$ obtained (-0.355 < -2.042) with the significance value of 0.725, that is greater than 0.05. This result indicates that profitability partially has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022. As a result, the first hypothesis (H_1) is rejected.

A company with higher return on assets tends to show the company is profitable in a way it can manage its resources effectively and efficiently as well as covering its operational expenses, particularly in tax expenses. For instance, in PT Baramulti Suksessarana TBk (BSSR), the profitability ratio in 2022 increased from 0.471 to 0.593 due to an increase in net profits during the period, while the ETR calculation in both years remain 22% or unchanged. Therefore, it can be concluded that company with a higher profitability is less likely to engage in tax avoidance activities which may lead to the result that profitability partially has an insignificant impact toward tax avoidance.

4.8.2   The Impact of Leverage on Tax Avoidance

In Partial significance test (t-test), the t_{Count} value results in 0.725, which is lower than the t_{Table} obtained (0.725 < 2.042) with the significance value of 0.489, that is greater than 0.05. This result indicates that leverage partially has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022. As a result, the second hypothesis (H_2) is rejected.

An increase in DER is not solely influenced by an increase in total debts, but also in the amount of total equity. For example, in PT Baramulti Suksessarana Tbk (BSSR), the leverage ratio in 2022 increased from 0.723 to 0.836 due to a decrease in equity, while the total debts more likely remain unchanged. Therefore, leverage partially has an insignificant impact toward tax avoidance.

4.8.3   The Impact of Firm Size on Tax Avoidance

In Partial significance test (t-test), the t_{Count} value results in 3.673, which is greater than the t_{Table} obtained (3.673 > 2.042) with the significance value of 0.001, that is lower than 0.05. This

result indicates that firm size partially has a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022. As a result, the third hypothesis (H₃) is accepted.

The larger the firm's size, the more opportunities provided for the company in managing the assets to earn and retain the profits along with optimizing the expenses through accounting practices, particularly in tax expenses. In PT Bukit Asam Tbk (PTBA), the total assets in 2022 increased by one-fourth times compared to 2021 and the ETR in 2022 decreased from 0.224 to 0.211. Therefore, firm size partially is empirically proved to have significant impact toward tax avoidance.

4.8.4 The Impact of Profitability, Leverage, and Firm Size on Tax Avoidance

F_{Count} value results in 4.931, which is greater than the F_{Table} obtained (4.931 > 2.922) with the significance value of 0.001, that is lower than 0.05. This result indicates that profitability, leverage, and firm size simultaneously have a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022. As a result, the fourth hypothesis (H₄) is accepted.

The profit generated by company is the start of fiscal reconciliation, end up with the tax payable. The higher profit leads to higher concern, since company must provide sufficient amount to pay the tax. Leverage is also a factor in building the tax strategy of the company, since the interest emerged of it has tax impact. The firm size is also a variable in tax avoidance since it makes wider exposure of tax when company goes bigger.

The following table summarizes the result of hypothesis tests:

Table 13
Summary of Hypothesis Tests Results

No	Hypothesis	Significance Value	Result
H₁	Profitability partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange	0.725	Rejected
H₂	Leverage partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange	0.489	Rejected
H₃	Firm Size partially has a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange	0.001	Accepted
H₄	Profitability, Leverage, and Firm Size simultaneously have a significant impact toward Tax Avoidance in coal companies listed on the Indonesia Stock Exchange	0.001	Accepted

Source: Data Processing from SPSS 26 (2025)

5.   CONCLUSION

Based on the testing already performed, below conclusions can be drawn:

1. Profitability (RoA) partially has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022, which concludes that the first hypothesis proposed in this research (H_1) is rejected.

2. Leverage (DER) partially has an insignificant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022, which concludes that the second hypothesis proposed in this research (H_2) is rejected.

3. Firm size partially has a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022, which concludes that the third hypothesis proposed in this research (H_3) is accepted.

4. Profitability (RoA), leverage (DER) and firm size simultaneously have a significant impact toward tax avoidance in coal companies listed on the Indonesia Stock Exchange during the period of 2020 to 2022, which concluded that the fourth hypothesis proposed in this research (H_4) is accepted.

5. The coefficient of determination (adjusted $R2$) in this is research resulted in 0.269 or equal to 26.9%, which indicates that profitability, leverage, and firm size as the independent variables observed in this study, take account for 26.9% of the changes in tax avoidance as the dependent variable. Meanwhile, the remaining 73.1% is impacted from other variables that are not observed in this research.

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