

Leverage and Company Size on Tax Avoidance In Manufacturing Companies Listed On The IDX In 2018-2021

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Abstract

*Leverage,
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This study aims to analyze the effect of leverage and company size on tax avoidance. The independent variables used are leverage and company size. The dependent variable used is tax avoidance. The population in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the 2018-2021 period. The sampling method used is purposive sampling method with sampling techniques using certain criteria, obtained 21 companies that meet the sample criteria in this study during the observation period of 4 consecutive years so that the total sample is 63. The method of analysis of this study uses multiple linear regression. The results of this study indicate that the Leverage variable has a significant positive effect on Tax Avoidance and Company Size has no significant effect on Tax Avoidance. Then simultaneously, the Leverage variable, and Company Size have a significant effect on Tax Avoidance.

1. INTRODUCTION

One of the largest sources of state revenue is obtained from taxes when compared to other types of revenue; Taxes are expected to make a positive contribution to the implementation of the country's growth . Taxation is an important element in the life of the state, especially to support the state budget and increase domestic growth in order to create prosperity in various fields. On the other hand, most of the state tax revenue is needed by the government to support governance in order to improve people's living standards. Thus, the government will try to collect as much money as possible (Safitri & Muid, 2020). In the State Revenue and Expenditure Budget (APBN), paying taxes generates greater revenue than other (non-tax) sectors (Dewi & Noviani, 2017).

Tax revenues are used to pay for state expenditures such as routine expenditures and growth expenditures, according to Taroreh et al. (2021). Taxes are used to finance public facilities, infrastructure development, and development investments in health and education. More public structures and

infrastructure should be built, and government service standards should increase, as tax revenues increase. Therefore, the general public should be informed about their tax responsibilities and appreciate the importance of taxes for the country.

The state utilizes the ongoing tax collection by the Indonesian government as a source of funding. The business world does not always react positively to the implementation of tax collection by the government (Sari & Marsono, 2020). According to Sulaeman (2021), communities and business organizations do not always react positively to the implementation of tax collection by the government. Governments want to pay as much tax as possible to maintain government management, but companies prefer to pay as little tax as possible because taxes reduce revenue or net profit. Because of this conflict of interest, taxpayers usually pay less in taxes overall, both legally and illegally. Businesses will work to reduce their tax liability in an effort to increase revenue. Tax evasion is a term used to describe both legal and illegal actions to reduce tax liability. An important

part of the economy is the taxation industry. The issue of tax avoidance is very widespread in Indonesia.

The nature of tax avoidance depends on a variety of circumstances. In this list is leverage. Leverage, according to Wijayanti & Merkusiwati (2017), is when businesses use loans to fund their operating and investment needs. The corporation will be required to assume the burden of interest expenses, which will be determined by the amount owed. The company's net profit will decrease due to interest costs, which will result in lower tax obligations and higher profits. Gems, et al. (2018) stated that the leverage variable has no significant effect on tax evasion. Unlike the study by Jasmine, et al. (2017) which confirms that leverage has a significant effect on tax evasion.

Corporation size has an effect on tax evasion in addition to the other two variables. Company size has a positive effect on tax evasion according to research by Dewinta & Setiawan (2016), which means that the bigger the company, the more tax avoidance coping activities within the company because there are usually more businesses with large asset values. competent and reliable in generating income. According to research by Febriana & Djawahir (2016), business size is a metric that can be used to characterize large and small companies depending on a number of variables, including total assets or total assets of the company, stock market value, average sales level, and the number of sales. Three types of business sizes are often used: large, medium, and small companies.

Various studies on tax avoidance have been conducted in Indonesia, including by Herdianto et al. (2020), Wahyuni et al. (2019), and Mahdiana & Amin (2020), who found that leverage has a beneficial and substantial impact on tax evasion. Unlike the study by Ningtyas, et al. (2020), Rangkuti, et al. (2017), and Mayasari & Al-Musfiroh (2020), who found no relationship between leverage and tax evasion.

Company size can also have an impact on tax avoidance. Company size has a significant effect on tax evasion, according to research by Mayasari & Al-Musfiroh (2020), Selviani, et al (2019), and Handayani (2018). Herdianto's research, et al. (2020), Ningtyas, et al. (2020), and Mahdiana & Amin (2020) found no evidence of a significant relationship between company size and tax evasion.

With the title "The Influence of *Leverage* and Company Size on Tax Avoidance in Manufacturing Companies Registered on the IDX in 2018-2021", the researcher intends to review the factors that influence tax evasion seen from the factors mentioned above as well. As the results of previous studies have not been consistent and there are still differences between one study and another. Based on the description above, the researcher raised a problem formulation as follows :

- a. Is there an effect of *Leverage* on Tax Avoidance in manufacturing companies listed on the IDX?
- b. Is there an effect of Company Size on Tax Avoidance in manufacturing companies listed on the IDX?

2. LITERATURE REVIEW

2.1 Agency Theory

The contract between management (agent) and the owner is known as agency theory. Managers are hired by shareholders (principals) to run the business on their behalf and for their benefit, and in exchange, agents are compensated for their efforts. (Jensen & Meckling, 1976). For this contractual arrangement to function properly, the owner will delegate this power to the management with the intention that the management runs the business to maximize profits while the owner will monitor management's performance. The essence of agency theory is to create the best contract to balance the interests of management and owners in the event of a conflict of interest. If tax evasion is not handled effectively, there will be a conflict of interest that begins with information asymmetry, which is the link between agency

theory and this research. In accordance with agency theory, the principal will release resources in the form of remuneration to agents in order to improve performance and efficiency in paying corporate taxes.

According to Irawan, et al (2017), management (agents) will be motivated by agency theory to increase business income. According to agency theory, agents will work to minimize their tax burden to avoid a decrease in their performance bonuses as a result of the impact of expenses on firm earnings. Companies that can manage their resources effectively will have access to tax breaks and incentives, which will make it obvious seems to be involved in tax evasion.

2.2 Tax

Taxes, namely as contributions that do not get direct lead services shown and used to pay for general expenses (Supramono & Damayanti, 2010) . Another definition of tax is explained by Supramono and Damayanti (2010), tax is a reciprocal service contribution (contra achievement) which can be shown directly and used to pay general expenses.

The state that has the authority to collect taxes, especially the state through the central government and regional governments, receives contributions from the people in the form of taxes. The law requires that taxes must be paid. The method of tax collection is with the authority regulated by laws and regulations that govern it. The government does not directly violate the law by levying taxes, which are then used to fund public spending. Therefore, it can be said that taxes are money obtained as a result of people making payments to the state treasury through the private sector and individuals in accordance with applicable laws and regulations.

2.3 Tax evasion

One of the definitions of tax avoidance is the arrangement of transactions to obtain profits, benefits or tax reductions in a way that is not intended by tax laws (Brown, 2012).

To be clear, tax evasion and other types of fraud are usually distinguishable. Tax evasion refers to the use of illegal strategies to reduce or eliminate the tax burden, as opposed to legal tax evasion, which involves using loopholes in current tax laws to avoid paying taxes or engaging in useless activities. In addition to avoiding taxes (Wijaya, 2014).

Despite the fact that almost no laws were violated, all parties argued that tax evasion was a practically reprehensible act. This is so the state can raise less money for taxes, as tax evasion directly contributes to the erosion of the tax base. Ignoring tax avoidance practices from a tax policy standpoint can result in weaknesses and a decrease in the effectiveness of a taxation system. Tax evasion usually takes the form of complex and methodically planned transaction schemes. Tax avoidance is often only possible for large companies. Large companies appear to pay less in taxes, leading to perceptions of unfairness. This can then result in other taxpayers (WP) being reluctant to pay taxes, so that the taxation system becomes inefficient. (Wijaya, 2014). As in this study, the formula used is:

$$ETR \text{ Cash} = \frac{\text{Beban Pajak}}{\text{Laba Sebelum Pajak}}$$

2.4 leverage

According to Maryam (2014) , in order for a corporation to be able to use a number of assets or cash, it must pay fixed expenses. This is known as leverage. Or, how much of a company's assets are financed by debt. When a corporation takes on excessive amounts of debt, it puts itself in danger of falling into the category of extreme leverage, where it gets stuck with a lot of debt and it's hard to get out from under it. (Fahmi, 2015) .

Leverage is also considered to be able to help companies avoid failure if handled properly, but if managed improperly because the company has difficulty paying its obligations, it can also lead to bankruptcy of the organization. As a result, businesses must be forced to weigh the benefits of taking on some debt against the potential sources of debt repayment.

The capacity of a business to use resources with fixed costs (fixed cost resources or finances) to increase the amount of income (return) for business owners is referred to as leverage. Leverage is also used to measure a company's capacity to meet all of its long-term and short-term commitments if it is dissolved. (Kasmir, 2017:151).

Leverage Ratio disclosed by Kasmir (2017), is the ratio used in measuring the extent to which a company's assets are financed with debt. This means how much debt is borne by the company compared to its assets. In a broad sense it is said that the solvency ratio is used to measure a company's ability to pay all of its obligations, both short term and long term if the company is liquidated.

leverage ratio describes the relationship between the company's debt to capital, this ratio can see how far the company is financed by debt or external parties with the company's ability which is described by capital. This ratio is used to compare sources of capital originating from debt (long-term debt and short-term debt) with their own capital. This is usually used to measure *the financial leverage* of a company. The *leverage ratio* indicator in this study is proxied by *the Debt to Assets Ratio (DAR)*.

Debt to Assets Ratio is the debt ratio used to measure the ratio between total debt and total assets. In other words, how much the company's assets are financed by debt or how much the company's debt affects asset management.

In addition, *the Debt to Asset Ratio* is one of the ratios used to measure a company's solvency level in measuring a company's ability to pay its long-term obligations. When a company has enough wealth and assets to cover its debts, it is considered settled. This ratio displays the proportion of a company's total debt to its total assets. The breakdown of money given to corporations by creditors is also reflected in the debt ratio. When the economy is struggling and interest rates are high, debt ratios can be detrimental because

they put businesses with high debt ratios in a difficult financial position. However, income can increase as long as the economy is strong and interest rates are low.

A high ratio number indicates a higher risk for creditors that the company will not be able to fulfill all of its commitments. *The Debt to Asset Ratio* is used to measure how much the company's assets are financed with debt or how much the company's debt affects asset management. The higher the DAR value means the greater the source of funds through loans to finance assets. A high DAR value also indicates a high risk because there is a concern that the company will not be able to cover its debts with its assets, which causes it to be difficult for the company to obtain additional loans. The formula used is as follows:

$$DAR = \frac{\text{Total Kewajiban}}{\text{Total Aktiva}}$$

Note:

DAR = *Debt to Asset Ratio*

2.5 Company Size

According to Ernawati (2016) The term "company size" refers to the size of the company, which can be expressed in terms of total assets or total net sales. Company size is a scale that can be used to categorize company size. Investors use a measure called a "business measure" to evaluate a company's resources and performance.

Rudangga & Sudiarta (2016) Total assets held by companies can be used to measure corporate size, as also disclosed. Total assets, revenue and market capitalization are three factors that may influence the size of a company in terms of size. Since total assets are considered to more reliably and more accurately reflect firm size, total assets are used in this study to determine how large a firm is. (Nurminda, 2017).

Total assets figure which displays the assets owned by the company is a good indicator of how big the business is. On the other hand, a smaller company's total assets indicates that it is a small business. The more assets a company has, as indicated by total

assets, the safer it is for investors to invest in the business.

Company size based on total assets owned by the company is regulated by the provisions of the Minister of Cooperatives and Small Enterprises and Middle School Number 06/Per/M.KUKM/XI/2012 according to Law No.20 2008.

Other characteristics that affect the financial structure come after the size of the company. In addition, companies often lack specialized employees, rarely implement financial planning, and rarely convert their accounting systems to management systems, which are typical of small businesses. The level of profit earned and the amount of expenses incurred for operational operations are affected by this.

The main factors that affect the size of the company:

1. The amount of total assets.
2. The amount of sales.
3. The size of the market capitalization .

In a sense, a company's invested capital grows along with its assets. A company's overall sales volume determines how much money is in circulation, and its market capitalization determines how well the public knows about the company. The size of the company is highly correlated with its growth rate, so the faster the growth, the bigger the size of the company. The formula used is as follows:

$$Size = Ln (Total Asset)$$

2.6 Mindset

To facilitate understanding of the influence of *Leverage* and *Company Size* on *Tax Avoidance*, the following is an overview that the author can convey:

a. The Relationship of *Leverage* to *Tax Avoidance*

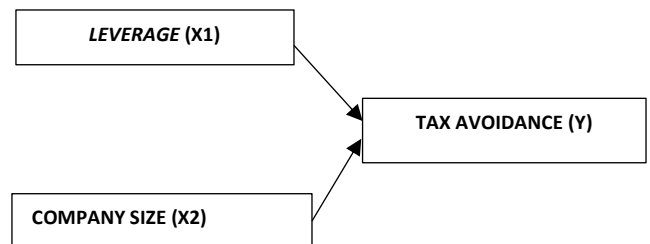
Companies generally use debt to meet the company's operational needs. The existence of these debts, raises a fixed burden, namely interest. The greater the debt owned by the company, the smaller the taxable profit used as the basis for calculating taxes because

of the tax incentives on the interest. This has implications for increasing corporate debt. The higher the company's debt value, the lower the company's *Cash Effective Tax Rate (CETR)*.

b. The Relationship between Firm Size and Tax Avoidance

Companies that have large total assets indicate that the company has made good progress in the long run, and illustrates that the company's condition is relatively stable. With the company's long experience in running a business, as well as the size of the management within it, of course the complexity of the transactions that occur is also getting bigger and bigger. This is what most companies use to take tax avoidance actions. The larger the size of the company, the greater the CETR it has, so the company will try to avoid taxes in order to generate maximum profits.

Figure 1 Mindset



2.7 Hypothesis

The hypothesis is a temporary answer or guess from the formulation of a research problem. Based on several previous studies and based on the theory used, the hypothesis in this study is:

a. Effect of *Leverage* on *Tax Avoidance*

Leverage refers to the use of loans by a company to meet its operational and investment needs. The amount of debt will result in a burden called interest expense, which must be paid by the corporation. Interest expenses will decrease the company's net profit, which will minimize tax payments to maximize profits. However, according to Permata, et al (2018) , the leverage variable does not have a substantial effect on tax evasion. In contrast to research conducted by Jasmine, et al (2017) , which claims that

leverage has a considerable influence on tax evasion. Based on the description above, the hypothesis is formulated as follows.

H^1 : *Leverage* has a significant positive effect on Tax Avoidance

- H_{a^1} : No *leverage* significant effect on Tax Avoidance

b. Effect of Company Size on Tax Avoidance

Based on total assets, log size, and other factors, a company can be classified as having large or small company size. The size of the corporation is shown by the higher total assets. Handayani's research (2018) found that company size has a major effect on tax evasion. Although the research findings by Mahdiana & Amin (2020) state that the results of company size have no significant effect on tax avoidance. This underlies the formulation of the hypothesis as follows:

- H_2 : Company size has a significant positive effect on Tax evasion.
- H_{a2} : Company size has no significant effect on Tax evasion.

3. RESEARCH METHODS

2.8 Data analysis method

The analytical method used in this study is multiple regression analysis method, with the tool used is SPSS. The reason for using the multiple regression analysis tool is to find out the effect of several independent variables on the dependent variable. This study tested the hypothesis using descriptive statistics, classical assumption tests, and hypothesis testing.

a. Descriptive Statistical Analysis

According to Sugiono (2014: 21) descriptive statistical analysis is an analysis used to describe the object to be studied through data that has been collected as it is without making general conclusions. Descriptive statistical analysis provides an overview of a data seen from the average value (mean), maximum, minimum and standard deviation.

b. Classic assumption test

1) Normality test

The normality test aims to test whether the residual or confounding variables in the regression model have a normal distribution. There are two ways to detect whether the residuals are normally distributed or not, namely by graphic analysis and statistical tests (Ghozali, 2011: 160). In the normality test, graph analysis is done by looking at the distribution of data (points) on the diagonal axis of the graph or with the diagonal axis of the graph or looking at the histogram of the residuals. In this study the analysis used is statistical analysis. Statistical tests were carried out by looking at the kurtosis and skewness values of the residuals.

2) Multicollinearity Test

The multicollinearity test aims to test whether the regression model found a correlation between independent (independent) variables (Ghozali, 2011: 105). A good regression model should not have a correlation between the independent variables. To test the presence or absence of multicollinearity is as follows:

1. The R^2 value generated by an estimation of the empirical regression model is very high, but individually many of the independent variables do not significantly affect the dependent variable.
2. Analyzing the correlation matrix of independent variables. If there is a fairly high correlation between the independent variables (generally above 0.90), then this is an indication of multicollinearity.
3. Multicollinearity can also be seen from the tolerance value and its opposite, and the variance inflation factor (VIF). These two measures explain which independent variables are explained by other independent variables.

3) Heteroscedasticity Test

The heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual one observation to another (Ghozali, 2011: 139). If the residual variance from one observation to

another observation remains, then it is called Homoscedasticity and if it is different it is called Heteroscedasticity. A good regression model is one that is homoscedasticity or does not occur heteroscedasticity because the cross-time data has data that represents various sizes (small, medium, and large). There are several ways that can be done in detecting the presence or absence of heteroscedasticity, namely by looking at the Graph Plot between the predicted values of the 64 dependent variables, namely ZPRED with the residual SRESID, doing the Park test, doing the Glejser test, and doing the White test. In this study the test to be used is the Glejser Test.

4) Autocorrelation Test

The autocorrelation test aims to test whether the linear regression model has a

correlation between the confounding errors in the t period and the confounding errors in the t- 1 (previous) period. Autocorrelation arises because sequential observations over time are related to one another. This is found in time series data because "disturbances" in an individual/group tend to affect "disturbances" in the same individual/group in the following period. (Ghozali, 2011: 110).

The autocorrelation test used in this study is the Durbin-Watson test. The Durbin-Watson test is used for first-order autocorrelation and requires an intercept (constant) in the regression model and no lag variables among the independent variables. The decision-making criteria for the Durbin-Watson TEST are as follows:

Table 3. 1
Decision making criteria

Null Hypothesis	Decision	If
There is no positive autocorrelation	Reject	$1 < d < dl$
There is no positive autocorrelation	No decision	$dl \leq d \leq du$
There is no negative correlation	Reject	$4 - dl < d < 4$
There is no negative correlation	No decision	$4 - du \leq d \leq 4 - dl$
There is no autorelation, positive or negative	No Reject	$du < d < 4 - du$

Source: (Ghozali, 2011)

c. A Multiple Regression analysis

This study uses multiple regression analysis because it wants to know the effect of several dependent variables (X) on the dependent variable (Y). The regression model in this study is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + e$$

Information :

- Y = Tax Avoidance
- α = Constant
- $\beta_1, \beta_2, \beta_3$ = Regression Coefficient of each variable independent
- X_1 = Leverage
- X_2 = Company Size
- e = Error terms

d. Hypothesis testing

1) Coefficient of Determination (R^2)

The coefficient of determination (R^2) basically measures how far the model's ability to explain the variation of the dependent variable. The value of the coefficient of determination is between zero and 1 or ($0 < x < 1$). A small R^2 value means that the ability of the independent variables to explain the dependent variables is very limited. Values close to 1 mean that the independent variables provide almost all the information needed to predict the variation of the dependent variable.

2) Partial Significance Test (t statistical test)

Testing the hypothesis with the t-test aims to test the regression coefficients individually (Nachrowi, 2008:18). The hypothesis in this test is as follows:

1. $H_0 : \beta_1 = 0$ means that the independent variable has no significant effect on the dependent variable.
2. $H_1: \beta_1 \neq 0$ means that the independent variable has a significant influence on the dependent variable.

This test is carried out by comparing the calculated t value with the t table value. If it turns out, after calculating $t_{table} > t_{count}$ then H_0 is accepted and H_a is rejected, and vice versa.

3) Simultaneous Significant Test (F Test)

Testing the hypothesis with the F-test aims to simultaneously test the regression coefficient Nachrowi & Usman (2008:17) . The hypothesis in this test is as follows:

1. $H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 \dots \beta_k = 0$, meaning that together the independent variables do not affect the dependent variable.
2. $H_0 = \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \dots \beta_k \neq 0$, meaning that together the independent variables influence the dependent variable.

The good way of testing is by using a table called the ANOVA table. In the ANOVA

table what is seen is the value of the degree of freedom (df). After calculating the calculated F value, the next step is to compare the value of Table F with a df of k and nk-1. If in fact, after calculating $F_{count} > F_{a(k,nk-1)}$ then H_0 is rejected or in other words that there is at least one statistically significant regression coefficient.

4. RESULTS AND DISCUSSION

4.1 Research result

Presentation of data in chapter IV will discuss how data is processed and analyzed after conducting research to collect information on manufacturing companies listed on the Indonesia Stock Exchange (IDX) during 2018-2022. The presentation of research results using:

a. Descriptive Statistics

Descriptive statistical analysis provides an overview or description of a data seen from the average value (mean), standard deviation, maximum, minimum. The following are the results of descriptive statistics about the research variable data:

Table 4. 1
Results of Descriptive Statistical Analysis

Variable	N	Minimum	Maximum	Means	std. Deviation
leverage	84	.14	.78	.4479	.18268
Company Size	84	12.73	30.62	22.0788	5.52627
Tax Avoidance	84	0.00	2.88	.3002	.35745

Source: IBM SPSS Statistics 26 (data processed 2022)

Based on the results of the descriptive statistical analysis table shown in table 4.2 above, the number of samples (N) is 84. The minimum, maximum and standard deviation values for each of the 84 samples are determined, along with an explanation of each variable.

1. Leverage

The lowest (*minimum*) value of the Leverage variable is 0.14, the highest (*maximum*) value is 0.78, the average (*mean*) value is

0.4479, and the standard deviation is 0.18268.

2. Company Size

The lowest (*minimum*) value of the company size variable is 12.73, the highest value (*maximum*) is 30.62, the average value (*mean*) is 22.0788 and the standard deviation (*std. deviation*) is 5.52627.

3. Tax evasion

The lowest (*minimum*) value of the tax avoidance variable is 0.00, the highest value (*maximum*) is 2.88, the average

value (*mean*) is 0.3002 and the standard deviation (*std. deviation*) is 0.35745.

classical assumption test in this study can be explained as follows:

b. Classic assumption test

The classical assumption test is a prerequisite test for multiple regression analysis, this test must meet the parameters so that the regression coefficient is not biased. This study uses the normality test, multicollinearity test, autocorrelation test and heteroscedasticity test to test the validity of the classical assumptions. The results of the

1) Normality test

In this study the normality test used the *Kolmogorov-Smirnov test* (*Kolmogorov-Smirnov Test*). This test determines whether the data is normally distributed or not by analyzing significance. The results obtained from the normality test in this study are as follows :

Table 4. 2
Data Normality Test Results

<i>One-Sample Kolmogorov-Smirnov Test</i>		
		<i>Standardized Residuals</i>
N		84
Normal Parameters ^{a, b}	<i>Means</i>	.5535
	<i>std. Deviation</i>	2.79019
Most Extreme Differences	<i>absolute</i>	.284
	<i>Positive</i>	.284
	<i>Negative</i>	-.200
Test Statistics		.284
asymp. Sig. (2- tailed)		.215 ^{c, d}

Source: IBM SPSS Statistics 26 (data processed 2022)

The *Kolmogorov-Smirnov one sample test*, *Sig* was obtained . is 0.215, indicating that the value is greater than 0.05, which means that the residual values are normally distributed or meet the normality requirements .

2) Multicollinearity Test

This test is intended to determine whether there are two or more independent variables that are linearly correlated. If this happens it will be difficult to distinguish the effect of each independent variable and the dependent variable. The tolerance value *or* *Variance Inflation Factor (VIF) value* can be used to determine the presence or absence of symptoms of multicollinearity in the research

model, so that it can be concluded that there is no multicollinearity between independent variables, because the tolerance limit is > 0.10 and the VIF limit is <10. 00.

It can be concluded as basis of reference:

1. It can be said that there is no multicollinearity between the independent variables in the regression model if the tolerance value is > 0.10 and the VIF value is < 10.
2. It can be said that there is multicollinearity between the independent variables in the regression model if the tolerance value is <0.10 and the VIF value is > 10.

The results of the multicollinearity test in this study are shown in the following table:

Table 4. 3
Multicollinearity Test Results

Model	Unstandardized coefficients		Standardized Coefficients	Q	Sig	Collinearity Statistics	
	B	std. Error	Betas			tolerance	VIF
(Constant)	.000	.001		.193	.847		
leverage	.028	.001	.453	21,814	.000	.974	1,026
Company Size	.077	.036	.045	2,141	.036	.974	1,026

Source: IBM SPSS Statistics 26 (data processed 2022)

Table 4.5 shows that the *tolerance value* for all independent variables is close to 1 and the VIF value for all independent variables is not more than 10. Based on these results it can be said that all independent variables consist of leverage (X_1) and firm size (X_2) there is no sign of multicollinearity.

3) Autocorrelation Test

The autocorrelation test is used to determine whether there is a correlation between a certain period and the previous period (t-1). One of the analyzes that can be carried out is regression analysis whose purpose is to determine the effect of the independent variables on the dependent

variable, so there is no relationship between the data from the current observation and from previous observations. Regression that has no autocorrelation or none at all is a good regression model. To find out by comparing the DW value with the d value from the Durbin Watson table:

1. If $DW < dL$ or $DW > 4 - dL$, it can be concluded that the data has autocorrelation.
2. If $dU < DW < 4 - dU$, it can be concluded that there is no autocorrelation in the data.
3. No conclusion if: $dL \leq DW \leq dU$ or $4 - dU \leq DW \leq 4 - dL$

The results of the autocorrelation test in this study are as follows:

Table 4. 4
Autocorrelation Test Results

Model	R	R square	Adjusted Square	R std. Error of the Estimate	Durbin-Watson
1	.069 ^a	.050	.020	.36096	2,224

Source: IBM SPSS Statistics 26 (data processed 2022)

From the results of the table above it can be concluded that:

Statistic test :

- DW = 2.224
 dl = 1.5723
 du = 1.7199
 (4-dl) = 2.4277
 (4-du) = 2.2801

The DW value lies between du and (4-du)

The calculation results above show that there is no autocorrelation in the regression model used in this study because the DW value of 2,224 lies between the du and (4-du) of 1.7199 and 2.2801 ($du < DW < 4-du$).

4) Heteroscedasticity Test

This heteroscedasticity test aims to determine whether there is an unequal variance between different observation residuals in the regression model. When the variance in the residual from one observation to the next does not change, it is said to be homoscedasticity and if it changes it is said to be heteroscedasticity. One of the characteristics of a reliable regression model is the absence of heteroscedasticity. The Glejser test can be used to determine heteroscedasticity. The basis for decision making in this test is if the significance value is ≥ 0.05 , then it can be concluded that there is no

heteroscedasticity problem, but if the significance value is <0.05 , it can be concluded that heteroscedasticity problem.

Table 4. 5
Heteroscedasticity Test Results

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	std. Error	Betas		
(Constant)	274	151		1810	.074
leverage	.284	.186	.169	1,525	.131
Company Size	.002	.006	.028	0.257	.798

Source: IBM SPSS Statistics 26 (data processed 2022)

In the above calculation results it is known that the significance value of the leverage variables (X_1) and firm size (X_2) in the results above is greater than 0.05 (0.131 and 0.798 respectively). This shows that there is no heteroscedasticity between the independent variables in the regression model.

5) Multiple Liner Regression Test

The author performs quantitative analysis using multiple linear regression techniques, multiple correlation coefficients, coefficient of determination, and hypothesis testing to determine the effect of Variable (X_1) and Variable (X_2) on Variable (Y)

Table 4. 6
Multiple Linear Regression Test Results
Coefficients^a

Model	Unstandardized Coefficients			Standardized Coefficients	Q	Sig.
	B	std. Error	Betas			
1	(Constant)	.392	.017		.193	.807
	leverage	.116	.020	.059	2,528	.031
	Company Size	.002	.007	.028	2,246	.559

Source: IBM SPSS Statistics 26 (data processed 2022)

The regression equation model referred to in Table 4.7 above, the results of the multiple linear regression equation are obtained, as follows:

$$Y = 0.392 + 0.116 X_1 + 0.002 X_2$$

- a. Constant (a) = 0.392 . If the independent variables consisting of leverage (X_1) and company size (X_2) are equal to zero then Tax Avoidance (Y) will be worth 0.392 . Positive value _ for constants implies that the independent variable has a positive influence .
- b. Coefficient $X_1 = 0.116$ shows that the leverage variable (X_1) has a unidirectional (positive) relationship to the Tax Avoidance

variable (Y) , meaning that every one point increase in the leverage variable (X_1), it will increase the level of Tax Avoidance (Y) by 0.116.

- c. Coefficient $X_2 = 0.002$ shows that the company size variable (X_2) has a unidirectional (positive) relationship to the Tax Avoidance variable (Y), meaning that every one point increase in the company size variable (X_2), it will increase the level of Tax Avoidance (Y) by 0.002.

d. Hypothesis testing

1) Analysis of the Coefficient of Determination (R^2)

The coefficient of determination test (R^2) was carried out to find out how well the model can describe the dependent variable.

Table 4. 7
Analysis Results of the Coefficient of Determination Test (R^2)
 ANOVA ^a

Model	R	R Square	Adjust R Square	Std. Error of the Estimate
1	.173 ^a	.168	.167	.00716465

Source: IBM SPSS Statistics 26 (data processed 2022)

Table 4.8 shows that the variable Tax Avoidance (Y) 16.7% is influenced by the variable leverage (X_1) and company size (X_2) with an *Adjusted R Square value* of 0.167. However, the remaining 83.3% can be explained that there are other factors that were not examined in this study.

a. Partial Significance Test (T Test)

The t test was conducted to determine the partial relationship between one independent variable and one dependent variable in a study being studied. The following table shows the results of the partial significance test analysis can be seen below:

Table 4. 8
Partial Significance Test Results (T Test)

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	Q	Sig.
	B	std. Error	Betas		
1 (Constant)	.392	.017		.193	.807
leverage	.116	.020	.059	2,528	.031
Company Size	.002	.007	.028	2,246	.599

Source: IBM SPSS Statistics 26 (data processed 2022)

Based on the results of the partial test table 4.9 using SPSS version 26, where the authors apply a significance level of 5% or $\alpha = 0.05$. The following conclusions can be drawn based on the partial test findings:

a) First Hypothesis Testing (H_1)

From the results of the analysis of the significance value of the leverage variable (X_1) of $0.031 < 0.05$, it indicates that H_0 is rejected and H_1 is accepted, meaning that the leverage variable (X_1) has a significant effect on Tax Avoidance (Y).

b) Second Hypothesis Testing (H_2)

From the analysis of the significance value of the firm size variable (X_2) of $0.599 > 0.05$, it indicates that H_0 is accepted and H_2

is rejected, meaning that the firm size variable (X_2) has no effect on tax avoidance (Y).

2) Simultaneous Significance Test (F Test)

The f test is used in the process of determining the significant level of test variable X_1 and test variable X_2 jointly on the Y variable. The f statistical test basically determines whether each independent variable in the model has an influence on the dependent variable simultaneously. The following is an explanation of the results of the simultaneous test analysis:

Table 4. 9
Simultaneous Test Results (F Test)

ANOVA ^a					
Model	Sum of Squares	df	MeanSquare	F	Sig.
Regression	051	2	.025	19,501	.023 ^b
residual	10,554	81	013		
Total	10605	83			

Source: IBM SPSS Statistics 26 (data processed 2022)

Based on the results of Table 4.10 from the simultaneous test using SPSS version 26, the authors use a significance level of 5% or $\alpha = 0.5$ and Fcount of 19.501 with a significance level of $0.023 < 0.05$. Based on these results, it can be concluded that simultaneous testing of leverage variables (X_1) and company size (X_2)

simultaneously has a significant and positive effect on Tax Avoidance (Y).

4.2 Discussion

At this stage the author will conduct a discussion based on the results of the statistical tests that have been carried out, while the following will be an overview of hypothesis testing :

Table 4. 10
Summary of Hypothesis Testing Results

	hypothesis	Sig	Coefficient	Conclusion
H₁	Leverage (X_1) has a positive effect on Tax Avoidance (Y)	0.031	0.116	H_1 supported
H₂	Company size (X_2) has a positive effect on Tax Avoidance (Y)	0.559	0.002	H_2 rejected

An overview of the findings of hypothesis testing for each variable on the tax avoidance variable (Y) is presented in table 4.11 , regarding the testing it has been shown that the results of the research conducted as a whole are quite satisfactory. The results of data analysis show that Fcount is 19,501 with a significance level of $0.000 < 0.05$, and the coefficient of determination is in the determination test yields an r squared value of 0.173 which indicates that the leverage variable (X_1) and company size (X_2) have an effect on the Tax Avoidance variable (Y) that is by 16.8%. While the results of the partial analysis can be interpreted as follows:

a. Effect of Leverage (X_1) on Tax Avoidance (Y)

Leverage is used to describe a company's ability to use fixed cost assets *or funds* to increase the level of income (*return*) for business owners. The results of the regression test support the first hypothesis which states

that leverage has a significant effect on tax evasion in manufacturing companies listed on the IDX in 2018-2022 . This means that the greater the value of the company's *leverage* , then the greater the level of tax evasion it does. This situation indicates that the company will need more debt from third parties to fund operations. When the leverage value is high, it will result in greater interest payments on the debt. Higher interest rates will have an impact on reducing the tax burden for companies. The higher the value of the company's debt, the lower the value of the company's *Cash ETR*.

Analysis of the results of this study supports the hypothesis that proposed and the direction of the coefficient is a positive influence. This research is corroborated by research conducted by Jasmine, et al (2017) , which states that it has a significant effect on tax evasion.

b. Effect of Firm Size (X_2) on Tax Avoidance (Y)

Company size is a scale where it can be used to categorize the size of a company. Investors use company size as a proxy for evaluating business performance and assets. The results of the regression test show that the second hypothesis which states company size has no effect on tax evasion in manufacturing companies listed on the IDX in 2018-2022 . This shows that the larger the company size (total assets) the company does not necessarily increase tax *avoidance* . This research supports research conducted by Sari, et al (2020), Safitri and Muid (2020), Mahdiana and Amin (2020), and Ningtyas, et al (2020); who found no significant relationship between firm size and tax avoidance.

5. CLOSING

5.1 conclusion

Based on research using multiple regression analysis, conclusions can be drawn regarding the effect of *leverage* and company size on tax evasion as follows:

- a. *leverage* variable has a significant positive effect on tax avoidance in manufacturing companies listed on the IDX. This means that the greater *the leverage* , the higher the tax avoidance of the company.
- b. The company size variable has no effect on tax evasion in manufacturing companies listed on the IDX. This means that the greater the total assets does not necessarily increase tax avoidance.

5.2 Suggestion

Based on the results of the analysis and testing, researchers can provide some suggestions on how to get better results:

- a. The research period is only four years and the researcher hopes that further research is suggested to increase the number of years of research observations on companies listed on the Indonesia Stock Exchange (IDX).
- b. For further researchers are expected to create a research model by incorporating additional research factors and paying more attention application of variables that can

increase the value of the company. Next researcher should be able to use additional moderating variables that can be more effective moderate the effect of the independent variable on the dependent variable.

- c. Listed companies *go public* to maximize the management of their tax resources, generate as much profit as possible and minimize the risks associated with managing their tax burden.

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