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The Effect of Capital Intensity on Tax Avvoidance in Manufacturing Companies Listed on The Indonesian Stock Exchang

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Abstract:

This study aims to determine and analyze the Effect of Capital Intensity on Tax Avoidance in manufacturing companies listed on the Indonesian stock exchange. The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange in the 2016-2018 period. While the samples in this study were chosen based on the purposive sampling method. The data used in this study aresecondary data sourced from the published financial statements of manufacturingcompanies listed on the Indonesia Stock Exchange. The analytical method used is multiple linear regression analysis using SPSS. The results of this study are as follows: Capital Intensity affects tax avoidance.

Keywords: *Capital Intensity, Tax Avoidance:*

1. Introduction

Manufacturing companies are one of the important sectors in the Indonesian economy. as companies operating in this sector, they often face strategic decisions regarding capital and capital structure. On the other hand, companies must also fulfill tax obligations in accordance with applicable laws and regulations. Taxes are the largest source of state revenue when compared to other sources of income in Indonesia. Taxes can play a role in supporting the development of a country. With fees and taxes, the government is able to fund regional developments in order to create social welfare. The definition of tax according to Law Number 16 of 2009 concerning General Provisions and Procedures for Taxation in Article 1 paragraph 1 reads that tax is a mandatory contribution to the state owed by individuals or entities that are coercive based on the law, by not getting compensation directly and used for the needs of the state for the greatest prosperity of the people. Taxes are the largest source of state revenue when compared to other sources of income in Indonesia. Taxes can play a role in supporting the development of a country. With fees and taxes, the government is able to fund regional developments in order to create social welfare. The definition of tax according to Law Number 16 of 2009 concerning General Provisions and Procedures for Taxation in Article 1 paragraph 1 reads that tax is a mandatory contribution to the state owed by individuals or entities that are coercive based on the law, by not getting compensation directly and used for the needs of the state for the greatest prosperity of the people.

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Taxpayers are expected to comply in carrying out their tax obligations. However, not all taxpayers are willing to pay taxes according to what they should be paid, especially taxpayers who have large tax obligations. This non-compliance will lead to reduced state revenue from the taxation sector and can disrupt state finances. In their research, Hoque et al. (2011) found reasons for taxpayers not paying their taxes, including low tax morale, low quality of tax remuneration, differences in perceptions of fairness and the tax system, low transparency and accountability of public institutions, high levels of corruption, lack of law enforcement and weak fiscal jurisdiction, high cost of compliance, weak tax law enforcement, insufficient tax collection, weak capacity to detect and prosecute fraudulent tax practices, lack of trust in government, high tax costs, and weak tax administration (Kalbuana et al., 2020).

Taxes that must be paid to the state will of course reduce the business profits earned by taxpayers, so that taxpayers tend to look for ways to reduce the tax burden they have to pay. Efforts made to reduce the tax burden that must be paid are referred to as tax avoidance. Tax avoidance is taking action to minimize tax obligations within the legal framework (Aumeerun., Jugurnath., & Soondrum, 2016). Therefore, in general, tax evasion is considered as an exploitation of complexity, technicality, and loopholes in tax law (Dowling, 2013).

Tax avoidance is a way to legally avoid tax payments made by taxpayers by reducing the amount of tax owed without violating tax regulations or in other terms looking for regulatory weaknesses (Hutagaol, J. 2007). According to Lim (2011) defines tax avoidance as tax savings that arise by utilizing tax provisions that are carried out legally to minimize tax obligations.

One factor that can affect tax avoidance is capital intensity, one of which can be measured by the proportion of fixed assets owned by a company. Capital Intensity is a measure that shows the extent to which a company relies on fixed capital, such as production machinery and equipment, in its operational activities. Companies with high capital intensity may have a large proportion of fixed capital in their cost structure. The effect of Capital Intensity on Tax Avoidance is an interesting phenomenon because of the possibility that there is a correlation between capital intensity and the company's tax avoidance strategy.. Several studies related to the effect of capital intensity on tax evasion have been carried out by Noor et al. (2010) and Kraft (2014). The results of research by Noor et al. (2010) found that the higher the capital intensity, the lower the ETR. This shows that the higher the capital intensity, the higher the tax avoidance by companies. Meanwhile, Kraft (2014) found that capital intensity had no effect on tax evasion.

This research was carried out referring to research conducted by Arianandini, P. W., & Ramantha, I. W. (2018). The difference between this research and previous research is that in this study the researcher added the capital intensity variable. Capital intensity is a form of financial decisions set by company management to increase company profitability. Capital intensity reflects how much capital a company needs to generate income (Mulyani, S., Darminti., & Endang. 2014). Kraft (2014) states that companies with intensive capital have greater opportunities for tax planning or tax avoidance

strategies than other companies. Research Richardson et al. (2016) shows that there is a significant relationship between tax avoidance and capital intensity.

2. Theoretical Background

Agency Theory

Agency problems will lead to agency costs, namely a decrease in nominally assessed welfare experienced by owners due to differences in the interests of shareholders and agents (Godfrey et al., 2010). Jensen & Meckling (1976) divides agency costs into three, namely Monitoring Costs, Bonding Costs, and Residual Loss. Monitoring cost is the cost of monitoring agent behavior. Bonding costs are the costs of bonding the interests of the agent to the owners where the bonding costs are also borne by the agent. Residual loss is the wealth effect of the fact that, even with monitoring and bonding expenses, the actions taken by agents will sometimes differ from the behavior that will maximize the interests of the owners.

Managers use avoidance techniques to manage earnings (Amidu, M., Yorke, S. M., & Harvey, S. 2016). The impact of taking tax avoidance measures is to reduce the tax burden that must be paid by the company. The impact of taking tax avoidance measures is to reduce the tax burden that must be paid by the company. This results in increased corporate profits, so that managers can obtain higher incentives. Agency problems arise with respect to tax avoidance if shareholders and managers evaluate the costs and benefits of tax avoidance differently (Desai & Dharmapala, 2006).

Potential conflicts of interest can be minimized by the alignment of external and internal stakeholder mechanisms known as corporate governance, namely mechanisms that control a company so that it can operate effectively in fulfilling both the interests of external and internal stakeholders (Mulyadi & Anwar, 2015).

Tax Avoidance

In a country, taxes are one of the biggest sources of state revenue. However, not all taxpayers want to carry out their tax obligations as they should. Aumeerun et al. (2016) stated that tax non-compliance is an act that does not comply with the tax laws and regulations of a country by not paying.

Lim (2011) defines tax avoidance as tax savings arising from common tax reduction methods where sometimes the legality of minimizing tax liability is questionable. Tax avoidance is taking action to minimize tax obligations within the law, while tax evasion is taking illegal actions to avoid paying taxes (Aumeerun, B., Jugurnath, B., & Soondrum, H. 2016)

Capital Intensity

/Capital intensity is a form of financial decisions set by company management to increase company profitability. Capital intensity reflects how much capital a company needs to generate income (Mulyani, S., Darminto, E., & Endang, M. G. W. 2014). Capital intensity is the amount of money invested to get one dollar of output. The

greater the capital used to produce the same unit, it can be said that the more intense the company's capital (Shaheen, S., & Malik, Q. A. 2012).

3. Methodology

Population and Sample

The population in this study are all manufacturing companies listed on the Indonesia Stock Exchange in the 2016-2018 period. While the sample in this research was selected based on the purposive sampling method, namely sampling based on certain provisions that are in accordance with the research objectives. The criteria set are as follows:

a) Manufacturing companies listed on the Indonesia Stock Exchange during the research year, namely 2016-2018.
b) The financial statements have a financial year ending December 31.
c) Companies with positive profit values so as not to distort the Cash Effective Tax Rate (CETR) value (Kurniasih and Maria, 2013).
d) Companies with a CASH ETR value of less than one should not create problems in model estimation

Data Types and Sources

The type of data used in this study is secondary data sourced from published financial reportsof manufacturing companies listed on the Indonesia Stock Exchange which consist of statements of financial position, income statements, and notes on the company's annual report in the 2016-2018 period

Data collection technique

Data collection techniques are methods used by researchers to collect data. In this study, the data collection technique used is documentation. According to Arikunto (2014) the documentation method is an object that is noticed (stared at) in obtaining information in the form of three kinds of sources, namely writing (paper), place (place), and paper or people (people). In carrying out the documentation method, the researcher used the documentation method. The documents needed in this research are the financial reports of manufacturing companies listed on the Indonesia Stock Exchange for the 2016-2018 period accessed via www.idx.co.id and related company websites.

Data analysis method

The data analysis method is a method used to process research data using a data simplification process in a form that is easy to read and interpret. Data analysis in this study uses the Simple Linear Regression analysis method

4. Empirical Findings/Result

Data Description

The objects in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX) and publishing annual financial reports for 2016-2018. The total

population in this study were 156 manufacturing companies listed on the Indonesia Stock Exchange. However, based on the criteria in selecting the sample, the sample companies used in this study were 21 companies with a period of 3 years so that the number of observations was 63 observations. The following describes the details of the use of research samples:

Table 1. Research Sample

Information	Number of Companies
Manufacturing Company on IDX	156
Manufacturing companies that do not publish financial statements during the observation period.	(36)
Manufacturing companies were expelled due to losses	(56)
Companies are excluded because they have a CETR value above 1	(43)
Companies used as samples	21
Number of Observations (21 x 3 years)	63

Source: Data processed. (2022)

From the table above it can be seen that the data used in this study totaled 63 observations. The data that was not used because it was outside the sample criteria used included 36 companies that did not publish their financial reports or annual reports, 56 companies were excluded because they experienced losses in the year of observation and 43 companies were excluded because the CETR data had a value of more than 1 which was feared to be disturbing. Research Model

Descriptive statistics

Descriptive statistics explain the characteristics of the sample, especially including the average value (mean), namely the minimum value and maximum value, as well as the standard deviation. Based on SPSS processed data which includes tax avoidance, profitability, leverage, institutional ownership and capital intensity, it will be known the maximum value, minimum value, average (mean) and standard deviation of each variable. The results of the description of the statistical data are as shown in Table 4.2 below:

Table 2. Description of Statistics

	N	*Minimum*	*Maximum*	*Mean*	*Std. Deviation*
CINT	63	0,174	0,765	0,45825	0,148424
Valid N (listwise)	63				

Source: Data processed. (2022)

Based on the table above, it shows that the minimum value for the capital intensity variable (CINT) is 0.174, namely the Champion Pacific Indonesia Tbk company and the maximum value is 0.765 for the Semen Indonesia (Persero) Tbk company. The average capital intensity variable is 0.45825 with a standard deviation of 0.148424

Multicollinearity Test

This test aims to test whether the regression model found a correlation between the independent variables. A good model should not have a high correlation between the independent variables. Tolerance measures the variability of the selected independent variables which cannot be explained by other independent variables. So, a low tolerance value is the same as a high VIF value (because VIF = 1/ tolerance) and indicates high collinearity. The commonly used cut-off value is a tolerance value of 0.10 or the same as a VIF value above 10.

The results of the multicollinearity test, the data used to prove the hypothesis are presented in the following table 3.

Table 3. Multicollinearity Test

Model	Collinearity Statistics		Information
	Tolerance	VIF	
Regresi			
X → Y	0.865	1.156	Tidak terjadi multikolineritas

Source: Data processed. (2022)

Based on the table above, based on table 4.4 above, it can be seen that the VIF value for each research variable is less than 10 and the tolerance value is greater than 0.10 so that it can be concluded that all independent variables are declared to have no symptoms of multicollinearity**.**

Heteroscedasticity Test

In this study, the heteroscedasticity test was demonstrated using the Glejser test with an absolute value as the dependent variable. For more details can be seen in the following table:

Table 4. Heteroscedasticity Test Results

	Sig.
(Constant)	0,094
Capital Intensity (CINT)	0,144

Source: Data processed. (2022)

Based on the results of the Glejser test in Table 4 the p-value (significance) of the Profitability (ROA) Leverage (LEV) Institutional Ownership (INSTI) Capital Intensity (CINT) variable for Tax Aviodance is greater than 0.05 so it can be concluded that there are no symptoms of heteroscedasticity (Ghozali, 2018: 137).

Hypothesis Testing

This study is intended to examine the effect of profitability, leverage, institutional ownership and capital intensity on tax avoidance. The test results using the multiple regression analysis method are shown in the following table 5 ;

Table 5. Hypothesis Testing

Variabel Dependen	Variabel independen	B	T Hitung	Sig
Tax Avoidance	*Capital Intensity*	-0,188	-3,001	0,004
Konstanta	0,310			
R Square	0.230			

Adjust R Square	0.177
F Hitung	4.333
Sig. F	0.004
N	63

Source: Data processed. (2022)

The capital intensity variable shows a regression coefficient value of -0.188 with a variable probability of 0.004 below the significance of 0.05 (5 percent). This can be interpreted that capital intensity affects tax avoidance. Thus hypothesis 4 which states that capital intensity has an effect on tax avoidance is accepted.

Partial Test (t test)

The statistical t test is intended to determine whether there is a partial (individual) effect of the independent variables on tax avoidance. The partial test results can be translated by the multiple linear regression equation as follows:

CETR = 0.310–0.188 CINT + e

From the regression equation above, it can be interpreted that the capital intensity variable has a negative regression coefficient value of -0.188. The negative coefficient value indicates that capital intensity has a negative effect on tax avoidance. This illustrates that if there is an increase in capital intensity by 1 unit, then tax avoidance will decrease by 0.188 assuming the other independent variables are held constant

Discussion

The results of the study using multiple linear regression obtained the result that capital intensity has an effect on tax avoidance. This can be seen from the calculated value of the hypothesis test where the significance value of capital intensity is below the significance level. Thus this study can accept the fourth hypothesis (H4) which states that capital intensity affects tax avoidance.

The capital intensity ratio is based on the company's total capital embedded in the form of fixed assets and inventories owned by the company. This factor can also describe how much the company invests its assets in the form of fixed assets and inventories. Ownership of fixed assets by the company will bring up depreciation costs each year which can be used to reduce tax payments (Suciarti et al., 2020).

Agency theory states that in a company there are different interests between shareholders (principals) and management (agents) who act in their own self-interest. According to Muzakki, M. R., & Darsono, D. (2015), management has an interest in improving company performance to get the desired compensation. In this regard, management can take advantage of asset depreciation to reduce the company's tax burden. Managers will invest unemployed company funds in the form of fixed assets with the aim of utilizing the depreciation as a deduction from the tax burden. So to improve the company's performance and achieve performance compensation, management will carry out tax avoidance in the form of reducing the tax burden.

This is in accordance with research conducted by Dharma, N. B. S., & Noviari, N. (2017).which found a significant effect on the capital intensity ratio on tax evasion. So that companies with high levels of fixed assets have a low tax burden due to tax deductions due to depreciation costs every year. Therefore, a high capital intensity ratio also indicates a decrease in the possibility of a company committing tax evasion as a result of the emergence of depreciation costs. This is different from the findings of Putra and Merkusiwati (2016) which found no effect on the capital intensity ratio on tax avoidance

5. Conclusions

Based on the results of research and analysis conducted for manufacturing companies listed on the Indonesia Stock Exchange in the 2016-2018 period with a total sample of 63 observations. From the results of the tests carried out, it can be concluded that Capital Intensity has an effect on tax avoidance

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