

THE EFFECT OF CAPITAL INTENSITY, LEVERAGE, AND INSTITUTIONAL OWNERSHIP ON TAX AVOIDANCE WITH PROFITABILITY AS A MODERATION VARIABLE

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh intensitas modal, leverage, dan kepemilikan institusional terhadap tax avoidance dengan profitabilitas sebagai variabel moderasi. Populasi dalam penelitian ini yaitu perusahaan sektor energi yang terdaftar di Bursa Efek Indonesia periode 2017-2021. Metode pengambilan sampel yang digunakan yaitu purposive sampling, sehingga sampel yang diambil sebanyak 188 data yang sesuai kriteria. Metode analisis data yang digunakan yaitu analisis regresi berganda metode selisih mutlak. Hasil Penelitian ini menunjukkan bahwa intensitas modal dan kepemilikan institusional berpengaruh positif terhadap tax avoidance, sedangkan leverage tidak berpengaruh terhadap tax avoidance. Profitabilitas mampu memperkuat pengaruh intensitas modal dan leverage terhadap tax avoidance, namun profitabilitas tidak mampu memoderasi pengaruh kepemilikan institusional terhadap tax avoidance. Implikasi dari penelitian ini yaitu dapat bermanfaat khususnya bagi pemerintah agar pemerintah dapat melakukan tindakan pencegahan supaya perusahaan tidak melakukan tax avoidance.

Kata kunci : *Intensitas Modal, Leverage, Kepemilikan Institusional, Profitabilitas, Tax avoidance*

JEL Code: *H26, D24, G32*

Abstract

This study aims to determine the effect of capital intensity, leverage, and institutional ownership on tax avoidance with profitability as a moderating variable. The population in this study are energy sector companies listed on Bursa Efek Indonesia for the 2017-2021 period. The sampling method used was purposive sampling, so the samples taken were 188 data that matched the criteria. The data analysis method used is the multiple regression analysis absolute difference method. The result of this study indicates that capital intensity and institutional ownership positively affect tax avoidance, while leverage does not. Profitability can strengthen the effect of capital intensity and leverage on tax avoidance, but profitability cannot moderate the effect of institutional ownership on tax avoidance. This research implies that it can be especially useful for the government so that the government can take preventive measures so that the company does not do tax avoidance.

Keywords: *capital intensity, leverage, institutional ownership, profitability, tax avoidance*

JEL Code: *H26, D24, G32*

INTRODUCTION

Tax collection is an action carried out by the government in a country to obtain a source of income. In Indonesia, taxes are considered crucial because they are useful as a source of state revenue to carry out national development in the framework of realizing the welfare and prosperity of the Indonesian people. Taxes are a source of financial support for the state so that the state can force and regulate people to pay taxes in accordance with legal laws.

A self-assessment system is a tax collection method that gives trust and authority to taxpayers, individuals, and entities to calculate, deposit and report taxes to the government ([Arianandini & Ramantha, 2018](#)). However, the implementation of self-assessment practices found a number of frauds that caused a reduction in the payment of this tax. One of the several frauds that occurred was the practice of tax avoidance. Tax avoidance, namely the company's efforts to carry out income tax management that does not deviate from the rules in the legislation so that the company can be said to be safe and legal.

The phenomenon of tax avoidance detected in Indonesia occurred at PT Adaro Energy Indonesia in 2019. Quoting from ([Merdeka.com, 2019](#)), PT Adaro Energy Indonesia is suspected of carrying out tax avoidance by transferring profits from coal mining in Indonesia. Its subsidiary in Singapore, namely Coaltrade Service International, only pays USD 125 million in taxes, which is less than taxes paid in Indonesia because rates in Singapore are lower than in Indonesia. This indicates that PT Adaro Energy Indonesia has reduced the tax bill that must be paid to the government

Another phenomenon of tax avoidance is carried out by American technology giants, namely Google, Microsoft, and Facebook. Quoting ([idxchannel.com, 2020](#)), three companies practice tax avoidance that applies in both developing and developed countries, including Indonesia. Research by ActionAid International suggests that these companies use loopholes in the global tax system to avoid taxes. Its value reaches USD 2.8 billion or IDR 41 trillion per year.

The phenomenon of tax avoidance in Indonesia can arise due to various factors. A number of factors influence the practice of tax avoidance or tax avoidance, namely capital intensity, leverage, and institutional ownership. In addition, profitability can also be said to be a factor that influences the occurrence of tax avoidance because the company can manage all assets properly so that the company can avoid it to benefit from leniency and tax incentives.

One of the several factors previously mentioned is capital intensity. According to ([Apsari & Supadmi, 2018](#)) capital intensity is the amount of fixed asset investment in the company. Based on the research conducted ([Anindyka et,el., 2018](#); [Dharma & Noviyari, 2017](#); [Dwiyanti & Jati, 2019](#); [Noor & Sari, 2021](#)) it proves that the capital intensity variable positively influences the tax avoidance variable. Based on the research conducted ([Apsari & Supadmi, 2018](#); [Purwanti & Jaya, 2020](#); [Putri et,al., 2020](#); [Suciarti et,al., 2020](#)) said that capital intensity negatively affects the tax avoidance variable. Research ([Fadilah et, al., 2021](#); [Faradisty et,al., 2019](#); [Wiguna & Jati, 2017](#); [Zoebar & Miftah, 2020](#)) says that the capital intensity variable does not affect the tax avoidance variable.

The second factor is Leverage. According to ([Ariawan & Setiawan, 2017](#)) leverage is a ratio that shows the amount of company debt or the level of company debt as an operational cost. Research conducted ([Ariawan & Setiawan, 2017](#); [Sanjaya, 2021](#); [Wardan et, al., 2019](#); [Wijayanti & Merkusiwati, 2017](#)) revealed that leverage positively affects the tax avoidance variable. Research ([Ardianti, 2019](#); [Purwanti & Jaya, 2020](#); [Rosa et, al., 2022](#); [Sanchez & Mulyani, 2020](#)) says that leverage negatively affects the tax avoidance variable. Meanwhile, research ([Anindyka et, al., 2018](#); [Arianandini & Ramantha, 2018](#); [Honggo & Marlinah, 2019](#); [Suciarti et,al., 2020](#)) shows that the leverage variable does not affect the tax avoidance variable.

The third factor is institutional ownership. Based on ([Yadasang et, al., 2019](#)) said, institutional ownership describes a group that oversees companies with high institutional ownership with the capability to control management more dominantly. Research conducted ([Ariawan & Setiawan, 2017](#); [Sanjaya, 2021](#); [Widuri et al., 2019](#); [Yadasang et, al., 2019](#)) proves that institutional ownership positively influences the tax avoidance variable. Based on the research conducted ([Amalia & Septiyani, 2018](#);

[Noviyani & Muid, 2019](#); [Purwanti & Jaya, 2020](#); [Yusuf et al., 2021](#)), proves that the institutional ownership variable negatively affects the tax avoidance variable. In contrast, the research conducted ([Arianandini & Ramantha, 2018](#); [Fathurrahman et al., 2021](#); [Fitria, 2018](#); [Yuniarsih, 2018](#)) stated that institutional ownership does not affect tax avoidance.

In this research, profitability is very interesting to use as a moderating variable. According to ([Kumalasari & Wahyudin, 2020](#)), profitability can show the company's ability to generate profits. Therefore, management can use high profitability to optimize profits in the company. Research ([Yusuf et al., 2021](#)) states that the profitability variable can strengthen the institutional ownership variable in the tax avoidance variable. Based on research ([Oktaviyani & Munandar, 2017](#)) provides evidence that the profitability variable can moderate the institutional ownership variable on the tax avoidance variable. Research ([Kumalasari & Wahyudin, 2020](#); [Sumantri et.al., 2022](#)) shows that the profitability variable can moderate the leverage variable on the tax avoidance variable. Research ([Kumalasari & Wahyudin, 2020](#); [Sanchez & Mulyani, 2020](#); [Sumantri et. al., 2022](#)) says that profitability cannot moderate the capital intensity variable in the tax avoidance variable.

The motivation for this research was carried out because it aims to see the level of tax avoidance that has occurred in companies engaged in the energy sector, since before the pandemic, during the covid-19 pandemic, to recovery during the covid-19 pandemic, given that energy sector companies have a very substantially to fulfill national activities and development. This research aims to provide empirical evidence and examine the effect of capital intensity, leverage, and institutional ownership on tax avoidance variables with profitability as a moderating variable in the scope of energy sector companies on the IDX from 2017 to 2021.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Agency Theory

([Jensen & Meckling, 1976](#)) describes Agency Theory as the interaction between management (agent) and the company's owner (principal) is established contractually. The company owner surrenders work to management to provide services for the needs of the company owner. According to (Brigham dan Houston, 2006) in ([Ariawan & Setiawan, 2017](#)), managers are given the company's owner's task of making decisions, which causes conflicts of interest or is called agency theory. A case related to agency theory in this research is the discovery of a disparity of interests between management and company owners when managing earnings. The company owner hopes there will be significant tax revenue from tax collection, while management believes that it should create higher profits but lower tax payments ([Fadilah et. al., 2021](#)).

Tax avoidance

Tax avoidance is a tactic for taxpayers to avoid paying taxes by reducing the amount of tax owed by not violating the tax law, or it can be called looking for loopholes in applicable regulations ([Hutagaol, 2007](#)). According to ([Lionita & Kusbandiyah, 2017](#)), tax avoidance is the company's actions in minimizing or reducing the legal tax burden. Measurements to see the level of occurrence of tax avoidance can use the CETR (Cash Effective Tax Ratio). According to ([Chen et al., 2010](#)), CETR can be used to measure tax aggressiveness. The greater the CETR, the smaller the level of tax avoidance by the company.

Effect of Capital intensity on Tax Avoidance

Capital intensity reflects the size of the company investing in fixed assets and inventories ([Dharma & Noviyari, 2017](#)). According to ([Hidayati et. al., 2021](#)), fixed assets in a company can reduce the tax burden that must be paid due to a depreciation of fixed assets. Based on previous research by ([Anindyka et. al., 2018](#); [Aryatama & Raharja, 2021](#); [Darsani & Sukartha, 2021](#); [Dharma & Noviyari, 2017](#); [Dwiyantri & Jati, 2019](#); [Marfiana et.al., 2021](#); [Noor & Sari, 2021](#)) proves the intensity variable capital positively affects

the tax avoidance variable. This problem is in accordance with agency theory. In this theory, there is an assumption that managers use asset depreciation to reduce tax payments for companies. Management uses the company's idle funds to invest in fixed assets ([Kumalasari & Wahyudin, 2020](#)). So the formulation of the hypothesis is:

H1: capital intensity has a positive relation to tax avoidance.

Effect of Leverage on Tax Avoidance

Leverage is a parameter that represents the amount of debt used to fund the company in driving the company's operational activities. Debt financing contains components regarding loan interest payments that can reduce taxable income ([Wijayanti & Merkusiwati, 2017](#)). Research conducted ([Ariawan & Setiawan, 2017](#); [Damayanti & Wulandari, 2021](#); [Sanjaya, 2021](#); [Wardan et al., 2019](#); [Wijayanti & Merkusiwati, 2017](#)) proves that leverage positively influences variable tax avoidance. In agency theory, as an agent authorized to make decisions, management will consider debt financing to minimize the company's tax burden and maximize company profits ([Kumalasari & Wahyudin, 2020](#)). So the hypothesis can be formulated:

H2: leverage has a positive effect on tax avoidance

Effect of institutional ownership on tax avoidance

Institutional ownership in a company stimulates a more optimal increase in supervision over management performance ([Yadasang et al., 2019](#)). The higher the level of corporate and institutional ownership, the higher the level of supervision over managers who can reduce tax avoidance and agency conflicts ([Wijayanti & Merkusiwati, 2017](#)). Research conducted ([Amalia & Septiyani, 2018](#); [Damayanti & Wulandari, 2021](#); [Darsani & Sukartha, 2021](#); [Noviyani & Muid, 2019](#); [Purwanti & Jaya, 2020](#); [Yusuf et al., 2021](#)) proves that institutional ownership variables negatively affect the tax avoidance variable. Therefore, the hypothesis can be formulated:

H3: Institutional ownership has a negative effect on tax avoidance

Profitability moderates the effect of capital intensity on tax avoidance

Profitability describes the company's ability to generate profits. High profitability makes companies invest through company profits in the form of fixed assets ([Kumalasari & Wahyudin, 2020](#)). When connected with agency theory which assumes that managers use asset depreciation to minimize tax payments, the greater the financing associated with fixed asset investment, the greater the management of these assets. The high profitability shows that asset management is getting better. By obtaining the highest profit, the management will get more rewards ([Kumalasari & Wahyudin, 2020](#)). Previous research ([Alfian & Rianto, 2022](#); [Kumalasari & Wahyudin, 2020](#); [Sumantri et al., 2022](#)) states that the results of the moderation test show that the profitability variable cannot strengthen or weaken the capital intensity variable on the tax avoidance variable. Then the hypothesis can be formulated:

H4: Profitability could moderate by strengthening the effect of capital intensity on tax avoidance

Profitability moderates the effect of leverage on tax avoidance

Management, as an agent, has decision-making authority in the company to take into account sources of financing by using debt as a management decision through interest debt which can minimize the tax payable. However, with the discovery of high profitability, management no longer considers using debt as a source of financing. Management will not take risks with high debt because the presence of high debt will result in tighter cash flow for the company, and management will not receive a bonus. High leverage can affect management's targets for obtaining maximum rewards, therefore, the use of high profitability so that you can get as much profit as possible is management's wise choice ([Kumalasari & Wahyudin, 2020](#)). In previous research conducted by ([Alfian & Rianto, 2022](#); [Kumalasari & Wahyudin, 2020](#); [Sumantri et al., 2022](#)) stated that the results of the moderation test in his research showed that

profitability could moderate the influence of the leverage variable on the tax avoidance variable. So, the hypothesis can be formulated as follows

H5: Profitability could moderate the effect between leverage and tax avoidance

Profitability moderates the effect of institutional ownership on tax avoidance

The high institutional ownership in the company can maximize supervision over management and be able to suppress conflict between management. The size of institutional ownership indicates higher control by the company owner (principal) over management which can reduce tax avoidance. The high profit achieved can also be seen from the high value of profitability which results in stronger control by company owners so that they can put pressure on management to carry out tax avoidance practices (Sanchez & Mulyani, 2020). Previous research (Oktaviyani & Munandar, 2017) stated that the results of the moderation test show that profitability can moderate the effect of institutional ownership variables on tax avoidance variables. So that the hypothesis can be formulated:

H6: Profitability could strengthen the effect of institutional ownership on tax avoidance.

RESEARCH METHOD

This study uses secondary and quantitative data. The population of this study is energy sector companies from 2017 to 2021 listed on the Indonesia Stock Exchange with a total of 76 companies. Initially, the raw data was 241 from 52 companies. After removing the data due to outliers and case-wise, the total sample became 188. The method used for data collection is non-participant observation, and the technique used to take samples using the purposive sampling method. In this study, the annual report was used as secondary data obtained from the IDX website and the company's website

The independent variables in this study are capital intensity, leverage, and institutional ownership. The dependent variable is tax avoidance, and the moderating variable is profitability, with the following calculation indicators

Tax avoidance

According to (Chen et, al., 2010), tax avoidance could be calculated using this formula:

$$\text{Cash ETR} = \frac{\text{Payment of taxes}}{\text{Income before tax}} \dots\dots\dots(1)$$

Capital intensity (CI)

According to (Apsari & Supadmi, 2018) capital intensity could be calculated using this formula:

$$\text{CI} = \frac{\text{Total fixed assets}}{\text{Total assets}} \dots\dots\dots(2)$$

Leverage

According to (Honggo & Marlinah, 2019), leverage could be calculated using this formula:

$$\text{DAR} = \frac{\text{Total liability}}{\text{Total Assets}} \dots\dots\dots(3)$$

Institutional ownership (INST)

According to (Ariawan & Setiawan, 2017) INST could be calculated using this formula:

$$\text{INST} = \frac{\text{Number of institutional shares}}{\text{number of outstanding shares}} \dots\dots\dots(4)$$

Profitability

According to (Yusuf et,al., 2021), profitability could be calculated using Return on Asset (ROA):

$$\text{ROA} = \frac{\text{Net profit (loss)after tax}}{\text{Total Assets}} \dots\dots\dots(5)$$

Data Analysis Technique

The moderating variable regression technique using the absolute difference method was used for data analysis. The analysis technique is carried out by implementing a regression on the absolute difference between the standardized independent variables and the hypothesized variable as the standardized moderating variable. When the absolute difference between the standardized independent variable and the standardized moderating variable is significant, the conclusion is that the moderating variable can moderate the effect of the independent variable on the dependent variable (Suliyanto, 2018). The following is a multiple linear regression model using the absolute difference method

$$Y = \alpha + \beta_1 ZX_1 + \beta_2 ZX_2 + \beta_3 ZX_3 + \beta_4 ZZ + \beta_5 |ZX_1 - ZZ| + \beta_6 |ZX_2 - ZZ| + \beta_7 |ZX_3 - ZZ| + e$$

Information :

- Y = Tax avoidance
- α = Konstanta
- β = Regression coefficient parameters
- ZX1 = Standardize Capital Intensity
- ZX2 = Standardize Leverage
- ZX3 = Standardize Institutional Ownership
- ZZ = Standardize Profitability
- |ZX1 – ZZ| = Standardize capital intensity with profitability standardization as a moderator variable
- |ZX2 – ZZ| = Standardize Leverage with profitability standardize as a moderator variable
- |ZX3 – ZZ| = Standardize institutional ownership with profitability standardize as a moderator variable
- e = Error Term

RESULT AND DISCUSSION

Total 188 data from 52 energy sector companies listed on the IDX from 2017-2021.

Table 1. Descriptive statistics result

	N	Minimum	Maximum	Mean	Std Deviation
CI (x1)	188	,0000	,9418	,443056	,2840038
DAR (x2)	188	,0480	2,0858	,538107	,2753582
INST (x3)	188	,0999	,9985	,636026	,2273493
ROA (z)	188	-1,1222	,4713	,033114	,1638606
CETR (Y)	188	-,2904	,8113	,203985	,2230453
Valid N (listwise)	188				

Source: Author's processed data

Statistical results in table 1, it is known that the minimum value of capital intensity (X1) is 0.000, and the maximum value is 0.9418, with a standard deviation of 0.2840038. The minimum value of leverage (X2) is 0.0480, and the maximum value is 2.0858, the standard deviation is 0.2753582. The minimum value of institutional ownership (X3) is 0.0999, the maximum value is 0.9985, and the standard deviation is 0.2273493. The minimum profitability value (Z) is -1.1222, the maximum value is 0.4713, and the standard deviation is 0.1638606. The minimum tax avoidance (Y) value is -0.2904, the maximum value is 0.8113, and the standard deviation is 0.2230453.

The normality test using Kolmogorov-Smirnov shows that 188 data are normally distributed. The results of the multicollinearity test show that all independent variables and moderating variables have no symptoms of multicollinearity with a tolerance value resulting from capital intensity (CI), leverage (DAR), institutional ownership (INST), and Profitability (ROA) variables, which are equal to 0.826; 0.802; 0.874; 0.660 while the VIF value produced by the variable capital intensity (CI), leverage (DAR), institutional ownership (INST), and profitability (ROA) is 1.211; 1.248; 1.144; 1.516. The results of the heteroscedasticity test found that each variable had a significance value of > 0.05. Therefore, it was concluded that there were no symptoms of heteroscedasticity with the results of the variable capital intensity (CI), leverage (DAR), institutional ownership (INST), and profitability (ROA) having respective significance values each of 0.093; 0.104; 0.227; 0.730. The results of the autocorrelation test, the Durbin-Watson value obtained is 1.984. Because the Durbin-Watson score is between dU to. 4-dU, namely $1.8049 < 1.984 < 2.368$, so we can conclude that there is no autocorrelation.

The coefficient of determination test obtained an adjusted R Square value of 0.400. Therefore, it means that a 40% change in the value of tax avoidance in energy sector companies on the IDX in 2017 - 2021 is influenced by capital intensity, leverage, institutional ownership, capital intensity moderation variable, leverage moderation variable, institutional ownership moderation variable and the rest is 60 % influenced by other variables.

The results of the F test obtained a calculated F value of 18.782, which is greater than the F table with $df (n1) = (k-1 = 5-1 = 4)$ and $df (n2) = (n-k = 188-5 = 183)$ namely 2, 42 with a significance value of 0.000 which means less than 0.05. So that the independent variables, namely leverage, capital intensity, and institutional ownership, have a simultaneous influence on the dependent variable, namely tax avoidance.

Result of T test

The value of the t table with a significant value of 5% and $df=n-k-1=188-3-1=184$ is 1.97294. The results of the t-test are shown in table 2:

Table 2. Multiple linear test results with t-test
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std Error	Beta	t	Sig
1	(Constant)	,285	,024		11,703	,000
	Zscore: CI (x1)	-,112	,014	-,504	-7,825	,000*
	Zscore: DAR (x2)	-,018	,015	-,081	-1,211	,227
	Zscore: INST (x3)	-,041	,014	-,183	-2,897	,004*
	Zscore: ROA (z)	,011	,016	,048	,644	,520
	moderating_CIx1	-,052	,018	-,221	-2,820	,005*
	moderating_DARx2	-,034	,014	-,181	-2,365	,019*
	moderating_INSTx3	,032	,021	,107	1,501	,135

a. Dependent Variable: CETR (Y)

Source: Processed data

*sig 5%

Based on the results of the regression coefficient above, an equation model can be created as follows:

$$Y = \alpha + \beta_1 ZX_1 + \beta_2 ZX_2 + \beta_3 ZX_3 + \beta_4 ZZ + \beta_5 |ZX_1 - ZZ| + \beta_6 |ZX_2 - ZZ| + \beta_7 |ZX_3 - ZZ| + e$$

$$Y = 0,285 - 0,112ZX_1 - 0,018ZX_2 - 0,041ZX_3 + 0,011ZZ - 0,052|ZX_1 - ZZ| - 0,034|ZX_2 - ZZ| + 0,032|ZX_3 - ZZ| + e$$

Effect of capital intensity on tax avoidance

The significance value for Zscore: C1(x1) is $0.000 < 0.05$, and the t count $>$ t table is 7.825 with a negative beta direction or $7.825 > 1.97294$. Thus, it is concluded that capital intensity positively affects tax avoidance. Therefore, the first hypothesis (H1) is accepted. The results of this research are similar to agency theory, which assumes that managers use asset depreciation to reduce corporate tax payments. Management uses the company's idle funds to invest in fixed assets ([Kumalasari & Wahyudin, 2020](#)). Research ([Anindyka et.al., 2018](#); [Aryatama & Raharja, 2021](#); [Darsani & Sukartha, 2021](#); [Dharma & Noviari, 2017](#); [Dwiyanti & Jati, 2019](#); [Marfiana et.al., 2021](#); [Noor & Sari, 2021](#)) proves that capital intensity influences positively tax avoidance variable.

Effect of Leverage on Tax Avoidance

The test results show a significance value of Z score: DAR(x2) of $0.227 > 0.05$, and the value of t count $<$ t table is 1.211 with negative beta direction or $1.211 < 1.97294$. Therefore it can be concluded that leverage does not affect tax avoidance, so the second hypothesis (H2) is rejected. This means that the leverage size in certain companies does not affect tax avoidance practices. The results of this research are the same as the research conducted ([Aminah et.al., 2017](#); [Anindyka et, al., 2018](#); [Arianandini & Ramantha, 2018](#); [Darsani & Sukartha, 2021](#); [Eddy & Angela, 2020](#); [Honggo & Marlinah, 2019](#); [Murni et.al., 2016](#); [Suciarti et, al., 2020](#)) which provides evidence that the leverage variable does not affect the tax avoidance variable.

Effect of Institutional Ownership on Tax Avoidance

The significance value of the Z score: INST(x3) is $0.004 < 0.05$, and the value of t count $>$ t table is 2.897 with a negative beta direction or $2.897 > 1.97294$. Thus, it can be concluded that institutional ownership has a positive effect on tax avoidance, therefore, the third hypothesis (H3) is rejected. This means that the higher the institutional ownership controlled by the company, the more aggressive it will be in reducing its tax payments. High institutional ownership means great pressure from company owners on management to reduce tax payments to get as much net profit as possible. Company owners can provide a decision so that management can reduce the tax burden so that companies can reduce tax payments, leading to higher tax avoidance ([Ariawan & Setiawan, 2017](#)). The results of this research are the same as the research conducted ([Ariawan & Setiawan, 2017](#); [Harahap, 2021](#); [Murni et.al., 2016](#); [Sanjaya, 2021](#); [Widuri et, al., 2019](#); [Yadasang et.al., 2019](#)) which says that institutional ownership positively affects variables tax avoidance.

The effect of capital intensity on tax avoidance with profitability as a moderating variable

The results show that the significance value of the moderating_Clx1 variable is $0.005 < 0.05$, and the t count $>$ t table is 2.820 with a negative beta direction or $2.820 > 1.97294$. Therefore, it can be concluded that profitability can strengthen the effect of capital intensity on tax avoidance. Thus, the fourth hypothesis (H4) is accepted. This result supports agency theory which assumes that managers use asset depreciation to reduce corporate tax payments. Then, if the profitability is higher, it shows that the management of assets in the company is getting better. By obtaining the highest profit, management's remuneration will be higher ([Kumalasari & Wahyudin, 2020](#)).

The effect of leverage on Tax Avoidance with profitability as a moderating variable

The results show that the significance value of the moderating_DARx2 variable is $0.019 < 0.05$, and the t count $>$ t table is 2.365 with a negative beta direction or $2.365 > 1.97294$. Thus it can be concluded that profitability can strengthen the influence of leverage on tax avoidance so that the fifth

hypothesis (H5) is accepted. This result supports agency theory which explains the relationship between management, who has authority in decision-making in companies and can take into account financing originating from debt as one of the management steps through debt interest. But with high profitability, management no longer sees debt as business financing as a way to minimize taxes. A high level of leverage will affect management's target of obtaining as much remuneration as possible. Therefore, management will decide to use high profitability to optimize company profits ([Kumalasari & Wahyudin, 2020](#)). The results of this research are the same as those conducted by ([Alfian & Rianto, 2022](#); [Kumalasari & Wahyudin, 2020](#); [Sumantri et al., 2022](#)), which proves that profitability can moderate the effect of leverage on tax avoidance.

The effect of institutional ownership on tax avoidance with profitability as a moderating variable

Based on the test results, the significance value of the moderating INSTx3 variable is $0.135 > 0.05$, and the t count $< t$ table is 1.501 with a positive beta direction or $1.501 < 1.97294$. Therefore it can be concluded that profitability cannot moderate the influence of institutional ownership variables on tax avoidance variables. Therefore, the sixth hypothesis (H6) is rejected. This provides evidence that profitability cannot weaken or strengthen the effect of institutional ownership on tax avoidance practices. The results of this research-proven the results that institutional ownership has a positive influence on tax avoidance, so the role of institutional ownership is not able to monitor companies in implementing tax avoidance. The results of this research are the same as those conducted ([Sujannah, 2021](#)), providing evidence that profitability cannot moderate the effect of institutional ownership on tax avoidance.

CONCLUSION

The results of this study indicate that capital intensity and institutional ownership positively affect tax avoidance, while leverage does not affect tax avoidance. Then Profitability can strengthen the effect of capital intensity and leverage on tax avoidance, but profitability cannot moderate the effect of institutional ownership on tax avoidance. This research will provide material for consideration in tax accounting to strengthen PSAK 46 concerning income tax accounting so that it can be used as a basis for taking preventive measures to minimize tax payments.

The limitation of this study is that there are no annual reports that can be accessed for several energy sector companies, thereby reducing the existing sample. Then in this study, the results were obtained from the coefficient of determination which produced an R Square of 0.400, which means that only 40% could be explained in the variables of this study. In comparison, 60% was explained by other variables not examined in this study.

Suggestions for further research are that it can fix the limitations of this research, such as changing variables and also being able to replace other sectors, such as manufacturing companies listed on the IDX. It is hoped that the government can use this research to develop preventive measures for companies so that they cannot carry out tax avoidance in various ways to reduce the tax that must be paid.

REFERENCES

- Alfian, M., & Rianto. (2022). Pengaruh Leverage dan Capital Intensity Ratio terhadap Effective Tax Rate dengan Profitabilitas sebagai Variabel Moderasi (Studi Empiris pada Perusahaan Sektor Pertambangan yang Terdaftar di BEI Periode 2016-2020). *RELEVAN: Jurnal Riset Akuntansi*, 2(2), 100–115.
- Amalia, S., & Septiyani, A. (2018). Pengaruh Corporate Governance terhadap Tax Avoidance pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2011-2015. *Diponegoro Journal of Accounting*, 7(4), 1–12.
- Aminah, Chairina, & Sari, Y. Y. (2017). The Influence of Company Size, Fixed Asset Intensity, Leverage, Profitability, and Political Connection To Tax Avoidance. *AFEBI Accounting Review (AAR)*, 2(2), 30–43. <https://doi.org/https://doi.org/10.47312/aar.v2i02.88>
- Anindyka, D., Pratomo, D., & Kurnia. (2018). Pengaruh Leverage (DAR), Capital Intensity dan Inventory Intensity terhadap Tax Avoidance. *E-Proceeding of Management*, 5(1), 713–719.
- Apsari, A. A. A. N. C., & Supadmi, N. L. (2018). Pengaruh Kompensasi Eksekutif, Koneksi Politik, dan Capital Intensity pada Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, 25(2), 1481–1505. <https://doi.org/10.24843/eja.2018.v25.i02.p25>
- Ardianti, P. N. H. (2019). Profitabilitas, Leverage, dan Komite Audit Pada Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, 26(3), 2020–2040. <https://doi.org/10.24843/eja.2019.v26.i03.p13>
- Arianandini, P. W., & Ramantha, I. W. (2018). Pengaruh Profitabilitas, Leverage, dan Kepemilikan Institusional Pada Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, 22(3), 2088–2116. <https://doi.org/10.24843/eja.2018.v22.i03.p17>
- Ariawan, I. M. A. R., & Setiawan, P. E. (2017). Pengaruh Dewan Komisaris Independen, Kepemilikan Institusional, Profitabilitas dan Leverage terhadap Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, 18(3), 1831–1859.
- Aryatama, M. I., & Raharja, S. (2021). The Effect of Capital Intensity, Corporate Social Responsibility, and Profitability on Tax Avoidance (In Manufacturing Companies Industry of Food & Beverage Sub Sectors Listed on Indonesia Stock Exchange 2015-2020). *DIPONEGORO JOURNAL OF ACCOUNTING*, 10(4), 1–15. <http://ejournal-s1.undip.ac.id/index.php/accounting>
- Chen, S., Cheng, Q., Shevlin, T., Chen, X., thank Helen Adams, W., Bowen, B., DeFranco, G., Dyreng, S., Elayan, F., Hillegeist, S., Hodge, F., Jennings, R., Kachelmeier, S., Kinney, B., Li, O., Matsumoto, D., Niskanen, M., Mills, L., Pincus, M., ... and, workshop. (2010). Are Family Firms more Tax Aggressive than Non-family Firms? Dalam *International Symposium on Empirical Accounting Research* (Vol. 91, Issue 1).
- Damayanti, V. N., & Wulandari, S. (2021). The Effect Of Leverage, Institutional Ownership, and Business Strategy On Tax Avoidance (Case Of Listed Manufacturing Companies In The Consumption Goods Industry Period 2014-2019). *ACCOUNTABILITY*, 10(1), 16–26. <https://doi.org/10.32400/ja.33956.10.1.2021.16-26>
- Darsani, P. A., & Sukartha, I. M. (2021). The Effect of Institutional Ownership, Profitability, Leverage and Capital Intensity Ratio on Tax Avoidance. Dalam *American Journal of Humanities and Social Sciences Research* (Issue 5). www.ajhssr.com
- Dharma, N. B. S., & Noviari, N. (2017). Pengaruh Corporate Social Responsibility dan Capital Intensity terhadap Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, 18(1), 529–556.
- Dwiyanti, I. A. I., & Jati, I. K. (2019). Pengaruh Profitabilitas, Capital Intensity, dan Inventory Intensity pada Penghindaran Pajak. *E-Jurnal Akuntansi*, 27(3), 2293–2321. <https://doi.org/10.24843/eja.2019.v27.i03.p24>
- Eddy, E. P. S., & Angela, A. (2020). The Impact Analysis of Return on Asset, Leverage and Firm Size to Tax Avoidance. *Jurnal Akuntansi*, 12(2), 256–264. <https://doi.org/https://doi.org/10.28932/jam.v12i2.2908>

- Fadilah, St. N., Rachmawati, L., & Dimiyati, M. (2021). Pengaruh Komite Audit, Dewan Komisaris Independen, dan Intensitas Modal terhadap Penghindaran Pajak di Perusahaan Keuangan. *JIAI(Jurnal Ilmiah Akuntansi Indonesia)*, 6(2), 263–290.
- Faradisty, A., Hariyani, E., & Wiguna, M. (2019). The effect of corporate social responsibility, profitability, independent commissioners, sales growth and capital intensity on tax avoidance. *Journal of Contemporary Accounting*, 1(3), 153–160. <https://doi.org/10.20885/jca.vol1.iss3.art3>
- Fathurrahman, I., Andriyanto, W. A., & Sari, R. H. D. P. (2021). Pengaruh Kepemilikan Institusional, Komite Audit, dan Thin Capitalization terhadap Tax Avoidance. *Jurnal Akunida*, 7(2), 205–2016.
- Fitria, G. (2018). Pengaruh Kepemilikan Institusional, Komisaris Independen, Karakter Eksekutif dan Size terhadap Tax Avoidance (Study Empiris Pada Emiten Sektor Perdagangan yang Terdaftar di BEI Tahun 2014-2017). *Jurnal Profita*, 11(3), 438–451. <https://doi.org/10.22441/profita.2018.v11.03.006>
- Harahap, R. (2021). Analysis of the Effect of Institutional Ownership Profitability, Sales Growth and Leverage on Tax Avoidance in Construction Subsector Companies. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 4(3), 5010–5018. <https://doi.org/10.33258/birci.v4i3.2288>
- Hidayati, F., Kusbandiyah, A., Pramono, H., & Pandansari, T. (2021). Pengaruh Leverage, Likuiditas, Ukuran Perusahaan, dan Capital Intensity terhadap Agresivitas Pajak (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2016-2019). *RATIO: Reviu Akuntansi Kontemporer Indonesia*, 2(1), 25–35.
- Honggo, K., & Marlinah, A. (2019). Pengaruh Ukuran Perusahaan, Umur Perusahaan, Dewan Komisaris Independen, Komite Audit, Sales Growth, dan Leverage Terhadap Penghindaran Pajak. *Jurnal Bisnis Dan Akuntansi*, 21(1a–1), 9–26. <https://doi.org/https://doi.org/10.34208/jba.v21i1a-1.705>
- Hutagaol, J. (2007). *Perpajakan: Isu-Isu Kontemporer*. Yogyakarta: Graha Ilmu.
- idxchannel.com. (2020). *Termasuk Indonesia, Google dan Microsoft Mangkir Bayar Pajak Rp41 Triliun*. <https://www.idxchannel.com/market-news/termasuk-indonesia-google-dan-microsoft-mangkir-bayar-pajak-rp41-triliun>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 305–360.
- Kumalasari, D., & Wahyudin, A. (2020). Pengaruh Leverage dan Intensitas Modal terhadap Effective Tax Rate (ETR) dengan Profitabilitas sebagai Variabel Moderating. *JAKA (Jurnal Akuntansi, Keuangan, Dan Auditing)*, 1(2), 53–66.
- Lionita, A., & Kusbandiyah, A. (2017). Pengaruh Corporate Social Responsibility, Profitabilitas, Leverage dan Komisaris Independen terhadap Praktik Penghindaran Pajak pada Perusahaan yang Terdaftar di BEI. *Kompartemen: Jurnal Ilmiah Akuntansi*, 15(1), 1–5.
- Marfiana, A., Praka, Y., Putra, M., Keuangan, P., Stan, N., & Id, A. M. A. (2021). The Effect of Employee Benefit Liabilities, Sales Growth, Capital Intensity, and Earning Management on Tax Avoidance. *Jurnal Manajemen STIE Muhammadiyah Palopo*, 7(1), 16–30.
- Merdeka.com. (2019). *Adaro Tersandung Kasus Dugaan Penggelapan Pajak USD 14 Juta Tiap Tahun Sejak 2009*. <https://www.merdeka.com/uang/adaro-tersandung-kasus-dugaan-penggelapan-pajak-usd-14-juta-tiap-tahun-sejak-2009.html>
- Murni, Y., Sudarmaji, E., & Sugihyanti, E. (2016). The Role of Institutional Ownerships, Board of Independent Commissioner and Leverage: Corporate Tax Avoidance in Indonesia. *Journal of Business and Management*, 18(11), 79–85. <https://doi.org/10.9790/487X-1811017985>
- Noor, I. N., & Sari, D. (2021). Pengaruh Intensitas Modal, Thin Capitalization dan Kepemilikan Keluarga terhadap Tax Avoidance (Pada Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2013-2017). *Jurnal Bisnis, Ekonomi, Dan Sains*, 01(1), 31–38.
- Noviyani, E., & Muid, D. (2019). Pengaruh Return On Assets, Leverage, Ukuran Perusahaan, Intensitas Aset Tetap dan Kepemilikan Institusional terhadap Penghindaran Pajak. *Diponegoro Journal of Accounting*, 8(3), 1–11.

- Oktaviyani, R., & Munandar, A. (2017). Effect of Solvency, Sales Growth, and Institutional Ownership on Tax Avoidance with Profitability as Moderating Variables in Indonesian Property and Real Estate Companies. *Binus Business Review*, 8(3), 183–188. <https://doi.org/10.21512/bbr.v8i3.3622>
- Purwanti, R., & Jaya, H. (2020). Faktor-Faktor yang Mempengaruhi Tax Avoidance pada Perusahaan Property dan Real Estate. *Measurement*, 14(2), 9–15.
- Putri, A. A., Wijaya, R. A., & Dewi, R. C. (2020). Tax Avoidance Melalui Ukuran Perusahaan sebagai Variabel Moderasi : Kepemilikan Institusional, Intensitas Modal dan Umur Perusahaan. *Journal of Business and Economics (JBE)*, 5(1), 1–11. <https://doi.org/10.35134/jbeupiyptk.v>
- Rosa, H. F., Hartono, A., & Ulfah, I. F. (2022). Pengaruh Return On Asset (ROA), Leverage dan Intensitas Modal terhadap Penghindaran Pajak (Tax Avoidance). *Jurnal Ekonomi Syariah Darussalam*, 3(1), 18–32.
- Sanchez, G. R., & Mulyani, S. D. (2020). Pengaruh Leverage dan Kepemilikan Insitusional terhadap Tax Avoidance dengan Profitabilitas sebagai Variabel Moderasi. Dalam *KOCENIN Serial Konferensi* (Vol. 10, Issue 1).
- Sanjaya, S. (2021). Pengaruh Leverage, Profitabilitas Dan Kepemilikan Institusional Terhadap Penghindaran Pajak. Dalam *SiNTESa CERED Seminar Nasional Teknologi Edukasi dan Humaniora* (Vol. 2021). <https://doi.org/https://doi.org/10.53695/sintesa.v1i1.429>
- Suciarti, C., Suryani, E., & Kurnia, K. (2020). The Effect of Leverage, Capital Intensity and Deferred Tax Expense on Tax Avoidance. *Journal of Accounting Auditing and Business*, 3(2), 76. <https://doi.org/10.24198/jaab.v3i2.28624>
- Sujannah, E. (2021). Leverage, Kepemilikan Institusional, dan Transfer Pricing, Penghindaran Pajak: Profitabilitas sebagai Variabel Moderasi. *Jurnal Literasi Akuntansi*, 1(1), 66–74.
- Suliyanto. (2018). *Metode Penelitian Bisnis untuk Skripsi, Tesis, & Disertasi*. Yogyakarta: Andi Offset.
- Sumantri, F. A., Kusnawan, A., Anggraeni, R. D., & Ic, D. A. A. (2022). *The Effect Of Capital Intensity, Sales Growth, Leverage On Tax Avoidance And Profitability As Moderators* (Vol. 20, Issue 1).
- Wardan, D. A., Nurharjanti, N. N., & Fauzan. (2019). The Effect of Audit Committee, Leverage, Return on Assets, Company Size, and Sales Growth on Tax Avoidance. *JURNAL Riset Akuntansi Dan Keuangan Indonesia*, 4(3).
- Widuri, R., Wijaya, W., Effendi, J., & Cikita, E. (2019). The Effect of Good Corporate Governance on Tax Avoidance of Listed Companies in Indonesian Stock Exchange in 2015-2017. *The Asian Institute of Research Journal of Economics and Business*, 2(1), 120–126. <https://doi.org/10.31014/aior.1992.02.01.72>
- Wiguna, I. P. P., & Jati, I. ketut. (2017). Pengaruh Corporate Social Responsibility, Preferensi Risiko Eksekutif, dan Capital Intensity pada Penghindaran Pajak. *E-Jurnal Akuntansi Universitas Udayana*, 21(1), 418–446.
- Wijayanti, Y. C., & Merkusiwati, N. K. L. A. (2017). Pengaruh Proporsi Komisaris Independen, Kepemilikan Institusional, Leverage, dan Ukuran Perusahaan pada Penghindaran Pajak. *E-Jurnal Akuntansi Universitas Udayana*, 20(1), 699–728.
- Yadasang, R. M., Suun, H. M., & Nasaruddin, F. (2019). Pengaruh Kepemilikan Pengaruh Kepemilikan Institusional, Kepemilikan Manajerial, dan Dewan Komisaris Independen terhadap Penghindaran Pajak pada Perusahaan Perbankan yang Terdaftar di BEI 2015-2017. *EQUITY: Jurnal Ekonomi, Manajemen Dan Akuntansi*, 14(1), 17–23.
- Yuniarsih, N. (2018). The Effect Of Accounting Coservatism and Corporate Governance Mechanism On Tax Avoidance. *Academic Research International*, 9(3), 68–76.
- Yusuf, M., Herawati, H., & Yulianti, H. (2021). Pengaruh Corporate Gorvenance terhadap Tax Avoidance dengan Profitabilitas sebagai Pemoderasi. *AKRUAL Jurnal Akuntansi Dan Keuangan*, 3(1), 44–57.
- Zoobar, M. K. Y., & Miftah, D. (2020). Pengaruh Corporate Social Responsibility, Capital Intensity dan Kualitas Audit terhadap Penghindaran Pajak. *Jurnal Magister Akuntansi Trisakti*, 7(1), 25–40. <https://doi.org/10.25105/jmat.v7i1.6315>