



Tax Aggressiveness: The Role of Capital Intensity and Inventory Intensity with Leverage as Intervening

Elin Marlina^{1*}, Agus Ismaya Hasanudin², Windu Mulyasari³

^{1*,2,3} Universitas of Sultan Ageng Tirtayasa, Indonesia

Corresponding author: elinmarlina0012@gmail.com ^{1*)}

Keywords: Tax Aggressiveness, Capital Intensity, Inventory Intensity, Leverage.

Abstract:

This Research Aims To Know The Effect Of Capital Intensity And Inventory Intensity On Tax Aggressiveness And To Know The Role Of Leverage In Mediating Capital Intensity And Inventory Intensity To Tax Aggressiveness In The Mining Industry In Indonesia. The population in this study are mining companies listed on the Indonesia Stock Exchange (IDX) from 2016-2020. The sample used in this study was selected by purposive sampling. The sample of companies that were successfully obtained in this study was 45 companies. The Source of data used in this study is secondary data with a purposive sampling method. The data analysis technique used is with the help of the SPSS Version 20.00 Application Program for Windows. The results showed that Capital Intensity has a positive effect on Tax Aggressiveness, Inventory intensity has a positive effect on Tax Aggressiveness, Leverage is not able to mediate Capital Intensity on Tax Aggressiveness, Leverage is not able to mediate Inventory Intensity on Tax Aggressiveness and Leverage has a positive effect on Tax Aggressiveness.



Introduction

Tax aggressiveness, both tax avoidance, and tax evasion have always been an interesting topic, although it continues to be discussed every year. The Indonesian Forum for Budget Transparency (FITRA) reports that it is estimated that every year there is IDR 110 trillion which is a tax avoidance figure. About 80% is done by corporate taxpayers and the rest are individual taxpayers. This figure proves that the practice of tax aggressiveness is a serious problem in Indonesia.

In 2016 the world's largest tax data leak occurred from the Panama-based law firm Mossack Fonseca otherwise known as the "Panama Papers". The data reveals that many companies hide their assets by creating shell companies in tax havens managed by Mossack Fonseca. The data also reveals that entrepreneurs, banks, and law firms are actors who have many roles in the practice of tax evasion.

In Indonesia, the practice of tax avoidance has been widely practiced, one example of a tax avoidance case is PT Bentoel International Investama Tbk (Bentoel Group) in 2013-2018. The Justice Network Institute reported that the tobacco company is owned by British American Tobacco (BAT), namely PT. Bentoel Internasional Investama practices tax avoidance of up to 11 million dollars per year. This tax avoidance is carried out by avoiding the payment of corporate income tax as a whole on profits received in the future.

The tax sector is one important role in state treasury receipts because Indonesia's economic activity cannot be separated from the role of taxes in it. Currently, the optimization of tax revenue in Indonesia is still experiencing many obstacles. The government together with the Directorate General of Taxes (DGT) has tried their best in tax collection so that the tax received by the state can be optimal. Law Number 28 of 2007 concerning General Provisions and Tax Procedures explains that the self-assessment system is a tax collection system that applies in Indonesia.

The definition of tax according to Law Number 16 of 2009 concerning General Provisions and Tax Procedures in Article 1 paragraph (1): Taxes are mandatory contributions to the state that are owned by individuals or entities that are coercive based on the law without receiving direct compensation which is used for the needs of the state for the greatest prosperity of the people. According to Oktavian (2019), taxes are the largest revenue for the state and the state uses tax funds for the benefit of the community. This is what underlies why taxes are coercive and taxpayers must comply with applicable tax regulations. But most corporate taxpayers still consider the obligation to pay taxes as an expense because it reduces the company's income.

Capital Intensity is defined as how much the company's wealth is invested in fixed assets (Maulana, 2020). Ayem and Setyadi (2019) explain that capital intensity or fixed asset intensity is obtained by comparing total fixed assets with total assets owned by the company.

PSAK No. 16 Fixed Assets by the Indonesian Institute of Accountants explains that fixed assets are tangible assets that are obtained by being built beforehand or in the ready-to-use form used in company operations, not intended for sale, and have a useful life of more than

one year. Fixed assets in companies are usually in the form of land, buildings, vehicles, machinery, mining equipment, and other properties.

According to Maulana (2020) inventory intensity is one part of assets that is measured by comparing the total inventory with the total assets owned by the company. PSAK 14 No.13 states that the high level of inventory in the company will cause waste and result in additional costs for the company. The costs incurred include material costs, production costs, storage costs, selling costs, general and administrative costs, and labor costs. These costs will be recognized as costs outside of inventory and will later reduce the company's net profit thereby reducing the tax burden that will be borne by the company (Andhari & Sukartha, 2017). Nofia (2018) also mentions that investment in the form of inventory in the company's warehouse will cause additional costs, namely maintenance costs and storage costs so that it can reduce company profits.

According to Kasmir (2010), leverage is debt used to support the company's operational activities or buy company assets. Leverage shows the extent to which the company uses debt in financing its activities by comparing the total liabilities with the total equity owned by the company. Fitria (2018) defines Leverage as the company's ability to meet short-term and long-term obligations from its capital. Law Number 36 of 2008 concerning income tax in article 6 paragraph (1) states that debt interest is a deductible expense for tax calculation purposes.

The difference between this study and previous research lies in the leverage variable which is used as an intervening variable that is associated with tax aggressiveness. Then capital intensity and inventory intensity are associated with the leverage variable as an indirect effect between capital intensity and inventory intensity on tax aggressiveness.

The intensity of the company's fixed assets can be described by how much investment in fixed assets is made by the company (Fitria, 2018). Companies that invest capital in the form of fixed assets can take advantage of the depreciation expense which is a deduction from the tax burden. This utilization will have an impact on declining company profits. Declining corporate profits cause the company's CETR to decrease and indicate increased tax aggressiveness. So when the company's capital intensity ratio increases, the tax aggressiveness will increase. According to agency theory, each party has its motivation. Managers as agents will try to manage the company well to maintain their position. One way to manage the company is to use idle funds in the company to invest in fixed assets to get depreciation profits which will later be used as a deduction for corporate taxes (Darmadi & Zulaikha, 2013). So the higher the intensity of a company's fixed assets, the higher the company's practice of tax aggressiveness.

H1: Capital Intensity has a positive effect on Tax Aggressiveness.

Inventory intensity shows the extent to which the company invests in its inventory by comparing the total inventory with the company's total assets (Arizoni, et al, 2020). Storage and maintenance expenses incurred on inventory can reduce company profits. Declining corporate profits cause the company's CETR to decrease and indicate increased tax aggressiveness. So when the company's inventory intensity ratio increases, the tax aggressiveness will increase. In agency theory, another way that managers do in managing

the company and its taxes is to charge additional inventory costs such as storage and maintenance expenses to reduce company profits and reduce the company's tax burden (Darmadi & Zulaikha, 2013). Research by Arizoni, et al (2020) and Maulana (2020) reveals that inventory intensity has a positive effect on tax aggressiveness. They reveal that the company tends to increase the ending inventory and increase the costs contained in the inventory to reduce net income so that the tax burden is reduced.

H2: Inventory Intensity has a positive effect on Tax Aggressiveness.

Leverage shows the size of the company's assets financed by debt by comparing the total debt with the company's total equity. The Leverage ratio can be used to describe the company's ability to meet its long-term obligations. (Safitri, 2017). Companies that have a high level of debt will bear a large interest expense. And these expenses can reduce the company's profit. Declining corporate profits cause the company's CETR to decrease and indicate increased tax aggressiveness. So when the company's leverage ratio increases, the tax aggressiveness will increase. Agency theory explains that conflict will arise between the principal and the agent when the source of funding in the company is reduced. The conflict that arises is when a request for funding from the management for the company's needs is rejected by the principal so that the management will owe to a third party to cover the company's financing (Ardyansyah, 2014).

H3: Leverage mediates Capital Intensity On Tax Aggressiveness.

Entity leverage is generally in the form of obligations or debts owed by the entity concerned. Inventory intensity is a measure of how much inventory is invested by the company, if the inventory owned by the company is high, the burden incurred to manage inventory will be high as well. Agency theory suggests that conflicts generally occur in companies because of funding allocation problems. Previous research conducted by Safitri (2017) explains that the leverage carried out by the entity will be able to provide additional funds for the purchase of inventory at the entity concerned, even though it must bear the interest expense on these obligations. In line with this thought, Maulana (2020) suspects that there is a close influence between leverage, inventory intensity, and tax aggressiveness

H4: Leverage mediates Inventory Intensity On Tax Aggressiveness.

Leverage shows the size of the company's assets financed by debt by comparing the total debt with the company's total equity. The Leverage ratio can be used to describe the company's ability to meet its long-term obligations. (Safitri, 2017). Companies that have a high level of debt will bear a large interest expense. And these expenses can reduce the company's profit. Declining corporate profits cause the company's CETR to decrease and indicate increased tax aggressiveness. So when the company's leverage ratio increases, the tax aggressiveness will increase. Agency theory explains that conflict will arise between the principal and the agent when the source of funding in the company is reduced. The conflict that arises is when a request for funding from the management for the company's needs is

rejected by the principal so that the management will owe to a third party to cover the company's financing (Ardyansyah, 2014).

H5: Leverage has a positive effect on Tax Aggressiveness.

Research Method

The research used in this research is quantitative. The population in this study are mining companies listed on the Indonesia Stock Exchange (IDX) from 2016-2020. The sample used in this study was selected by purposive sampling. The sample of companies that were successfully obtained in this study was 45 companies. The Source of data used in this study is secondary data with a purposive sampling method. The analytical method used is quantitative analysis in the form of numbers and uses statistical methods assisted by SPSS software.

The data analysis techniques needed to achieve the research objectives include Descriptive Statistical Test, Classical Assumption Test, Model Feasibility Test, and Hypothesis Testing. This study uses one endogenous variable, namely the Tax Aggressiveness variable, two exogenous variables, namely capital intensity, and inventory intensity, and one intervention variable, namely leverage.

The theory used is agency theory. Jensen and Macking, 1976 (in Maulana, 2020) define agency theory as a relationship that arises because of a contract between a certain party (principal) that requires another party (agent) to perform services by giving decision-making authority to the agent. According to Luayyi, 2010 (in Pinareswati, 2020) agency theory is an agreement that arises between the owner of capital (principal) and the manager (agent) to manage a company.

Agency theory explains that in tax aggressiveness there is a relationship that involves the government (principal) and the company (agent). The conflict that arises from this relationship is the difference in interests where the government as a stakeholder wants maximum tax revenue while the company as an agent wants low tax payments. This causes the company as a taxpayer to make efforts to minimize the tax burden that must be paid.

Agency theory explains that agents will try to do tax management and manage their assets as well as possible by taking advantage of tax incentives and other tax concessions so that the company managed by the agent can look good in front of the principal. Meanwhile, the principal does not want an aggressive tax because he considers this practice to be a manipulation of financial statements. However, if this practice is carried out excessively, it will indicate that the company is practicing tax aggressiveness (Windaswari and Merkusiwati, 2018).

The theoretical link with the variables studied lies in the difference in interests that make many companies practice tax aggressiveness by reducing profits because the greater the company's profit, the greater the tax burden borne by the company. Therefore, the greater the profit earned by the company, the greater the tax aggressiveness practices carried out.

Tax aggressiveness is a practice carried out by taxpayers to reduce the tax burden by taking advantage of loopholes in tax regulations or by violating tax regulations. One of the

ways to do this is by taking advantage of the exceptions or deductions allowed in the applicable tax regulations (Dewinta & Setiawan, 2016). The tax aggressiveness measurement model used in this research is the Cash Effective Tax Rate (CETR) model. CET in this study will be calculated by the formula:

$$\text{Cash Effective Tax Rate} = \frac{\text{Kas yang dibayarkan untuk pajak}}{\text{Laba Sebelum Pajak}}$$

Source: Sinaga dan Suardikha (2015)

Capital intensity is defined as the amount of capital owned by the company in the form of fixed assets so that the capital intensity ratio is measured by comparing the proportion of fixed assets with the total assets owned by the company (Ayem and Setyadi, 2019). The fixed asset intensity ratio is measured using the following formula:

$$\text{Capital Intensity Ratio} = \frac{\text{Total Aset Tetap}}{\text{Total Aset}}$$

Source: Ayem dan Setyadi, (2019).

Inventory intensity is the proportion of inventory to total assets owned by the company. Investments in inventory will incur additional costs that can reduce the company's profit calculation so that it has an impact on its tax calculations (Pinareswati and Mildawati, 2020). The inventory intensity ratio is measured using the following formula:

$$\text{Inventory Intensity Ratio} = \frac{\text{Total Persediaan}}{\text{Total Aset}}$$

Source: Pinareswati dan Mildawati, (2020).

Leverage is the level of debt used by the company in supporting its operational activities. The higher the value of the leverage ratio, the higher the amount of funding from debt used by the company and causing high-interest costs to be paid as a result of the debt (Windaswari and Merkusiwati, 2018). (Nastiti, 2020). Maulana (2020) revealed that the debt borne by the company will cause interest expenses that can reduce company profits and affect tax calculations. The formula used in calculating DER:

$$\text{Debt to Equity Ratio} = \frac{\text{Total Hutang}}{\text{Total Ekuitas}}$$

Source: Siregar dan Widyawati (2016).

This Research Aims To Know The Effect Of Capital Intensity And Inventory Intensity On Tax Aggressiveness And To Know The Role Of Leverage In Mediating Capital Intensity And Inventory Intensity To Tax Aggressiveness In The Mining Industry In Indonesia.

Based on grand theory, previous research, and research hypotheses, the framework of thinking can be illustrated in Figure 1.

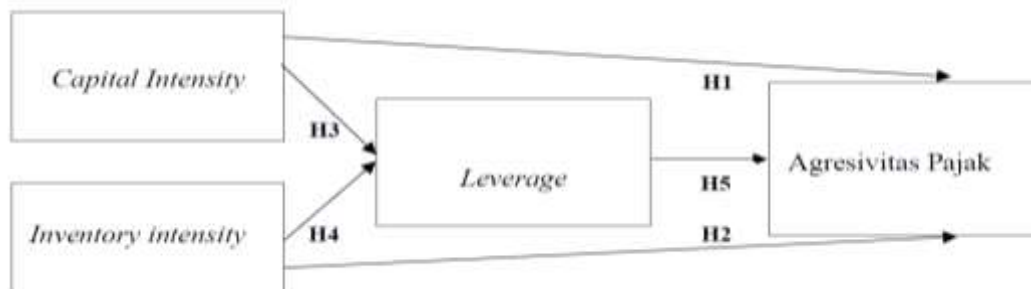


Figure 1. Theoretical Framework

There are several stages in this research. The first is descriptive statistics which are useful for providing an overview of the data description of all variables in the study seen from the minimum value, maximum value, average (mean), and standard deviation (Ghozali, imam, 2009:19). Furthermore, the classical assumption test is also carried out which aims to determine whether the data meets the basic assumptions. This test is important to do to avoid biased estimates. Classical assumption tests in this study include a) Normality Test, b) Multicollinearity Test, c) Heteroscedasticity Test and d) Autocorrelation Test.

Furthermore, to find out the relationship between the independent variable and the dependent variable, A Multiple Linear Regression Analysis was performed. The multiple regression analysis formulae used in the study are as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 Y + e$$

$$Z = \alpha + \beta_1 X_1 + \beta_2 X_2 + e_1$$

Description:

Y: Tax Aggressiveness

a: constant

β : variable coefficient

X1: Capital Intensity

X2: Inventory Intensity

Z: Leverage

e: Error

Result and Discussion

Descriptive statistics Test

Descriptive statistical analysis in this study was carried out with the help of the SPSS (Statistical Product and Service Solution) version 20 program. A summary of the results of descriptive statistical tests on 45 sample data of mining companies listed on the IDX in 2016-2020 is presented in the following table:

Table 1. Descriptive statistics Test Results

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Y	45	-.20	6.55	.7972	1.20707
X1	45	.16	.69	.3635	.15053
X2	45	.01	.20	.0693	.04710
Z	45	.14	18.02	.13779	2.63131
Valid N (listwise)	45				

Source: Output of SPSS 20 (2022)

Classic Assumption Test Results

Classic Assumption Test

The results of the normality test in this study can be seen in the following table:

Table 2. Normality Test Results
One-Sample Kolmogorov-Smirnov Test

		Equation 1	Equation 2
N		45	45
Normal Parameters ^{a,b}	Mean	0E-7	0E-7
	Std. Deviation	.805814838	.80546227
	Absolute	.111	.123
Most Extreme Differences	Positive	.111	.123
	Negative	-.103	-.085
Kolmogorov-Smirnov Z		.734	.825
Asymp. Sig. (2-tailed)		.654	.504

a. Test distribution is Normal

b. Calculated from da+ta.

Source: Output of SPSS 20 (2022)

The table above shows that the asymptotic significance value (2-tailed) is greater than 0.05 so that the data is ensured that the data is normally distributed.

Multicollinearity Test

The following are the results of the multicollinearity test in the regression analysis of equation 1:

Table 3. Multicollinearity Test Results

Model		Coefficients ^a	
		Tolerance	VIF
1	(Constant)		
	inx1	.676	1.480
	inx2	.780	1.283
	lnz	.751	1.332

a. Dependent Variable : Iny

Source: Output of SPSS 20 (2022)

Based on the table above, the VIF value for all variables < 10 tolerance value > 0.1 , this indicates that there is no multicollinearity in regression equation 1. Furthermore, the results of the multicollinearity test in equation 2 can be seen as follows:

Table 4. Multicollinearity Test Results

Model		Coefficients ^a	
		Tolerance	VIF
1	(Constant)		
	Inx1	.886	1.128
	Inx2	.886	1.128

a. Dependent Variable : lnz

Source: Output of SPSS 20 (2022)

Based on the table above for equation 2, the VIF value for all variables is < 10 , the tolerance value is > 0.1 , this indicates that there is no multicollinearity in regression equation 2.

Heteroscedasticity Test

Heteroscedasticity test results by observing the Saccaterplot chart pattern. Indicates that the points spread randomly both above and below the number 0 on the Y-axis. So it can be concluded that the regression model does not experience symptoms of heteroscedasticity. Furthermore, to determine the presence or absence of autocorrelation symptoms, a Run Test is used. The results of the autocorrelation test can be seen in the following table. this:

Table 4. Autocorrelation Test Results

	Runs Test	
	Unstandardized Residual	Unstandardized Residual
Test Value ^a	-.04395	-.21650
Cases $<$ Test Value	22	22
Cases \geq Test Value	22	23
Total Cases	44	45
Number of Runs	28	13
Z	1.373	-3.014
Asymp. Sig (2-tailed)	.170	.053

a. Median

Source: Output of SPSS 20 (2022)

Based on the table above, for equations 1 and 2, a significant value was obtained from the Run test results in both regression equations > 0.05 , this indicates that there is no autocorrelation in the two regression equations.

Model Feasibility Test (Goodness of Fit)

F Statistical Test

The results of the model goodness test (F statistic test) are presented in the ANOVA table below:

Equation 1

Table 5. F Statistical Test Result
ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig
	Regression	14.029	3	4.676	6.699	.001 ^b
1	Residual	27.921	40	.698		
	Total	41.950	43			

a. Dependent Variable : Iny

b. Predictors: (Constant), Inz, Inx2, Inx1

Source: Output of SPSS 20 (2022)

Based on table 4 above, for equation 1 it is known that the calculated F value is 6699 and the significance value is 0.001. If F count (6.699) $>$ F table (3.220) and the significance value (0.001) $<$ alpha (0.05), it can be concluded that the combination of independent variables consisting of Capital Intensity, Inventory intensity, and leverage jointly affect Tax Aggressiveness. These results indicate that the model is in a good category and passes the goodness of fit test requirements (Ghozali, 2018:97).

Equation 2

Table 6. F Statistical Test Result
ANOVA^a

	Model	Sum of Squares	df	Mean Square	F	Sig
	Regression	7.368	2	3.684	5.420	.008 ^b
1	Residual	28.546	42	.680		
	Total	35.914	44			

a. Dependent Variable : Inz

b. Predictors: (Constant), Inx2, Inx1

Source: Output of SPSS 20 (2022)

Based on table 5 above, for equation 2 it is known that the calculated F value is 5.420 and the significance value is 0.008. If F count (5.420) $>$ F table (3.220) and the significance value (0.008) $<$ alpha (0.05), it can be concluded that the combination of independent variables consisting of Capital Intensity and Inventory Intensity together affects leverage. These results indicate that the model is in a good category and passes the goodness of fit test requirements.

Coefficient of Determination Test (R²)

The results of the coefficient of determination in this study are as follows:

Equation 1

Table 7. Coefficient of determination Test Results

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578 ^a	.334	.284	.83549

a. Predictors: (Constant), Inz, Inx2, Inx1

b. Dependent Variable: Iny

Source: Output of SPSS 20 (2022)

It can be seen from Table 6 above that the coefficient of determination which shows the adjusted R² value is 0.284. This shows that the dependent variable of Tax Aggressiveness can be explained by the independent variables, namely Capital Intensity, Inventory intensity, and leverage of 28.4%. While the remaining 71.6% is explained by other variables outside the model under study.

Equation 2

Table 8. Coefficient of determination Test Results

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.453 ^a	.205	.167	.82442

a. Predictors: (Constant), Inx2, Inx1

b. Dependent Variable: Inz

Source: Output of SPSS 20 (2022)

It can be seen from Table 7 above that the coefficient of determination which shows the adjusted R² value is 0.167. This shows that the dependent variable Leverage can be explained by the independent variables, namely Capital Intensity and Inventory intensity of 16.7%. While the remaining 83.3% is explained by other variables outside the model studied.

Multiple Linear Regression Analysis

The following are the results of multiple linear regression analysis which can be seen in the table below:

Table 9. Results of Multiple Linear Regression Analysis 1

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.453 ^a	.205	.167	.82442	1.319

a. Predictors: (Constant), Inx2, Inx1

b. Dependent Variable: Inz

Source: Output of SPSS 20 (2022)

Table 10. Results of Multiple Linear Regression Analysis 1
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	-2.205	.698			-3.158	.003		
Inx1	-1.078	.336	-.469		-3.207	.003	.886	1.128
Inx2	-.286	.161	-.260		-1.782	.082	.886	1.128

a. Dependent Variable: Inz

Source: Output of SPSS 20 (2022)

Referring to the regression model 1 output in the "Coefficients" section, equation 1 is obtained, as follows: $Z = -2.205 + (-1.078 X_1) + (-0.286 X_2) + e_1$. The significance values of the two variables are $X_1 = 0.003 < 0.05$ and $X_2 = 0.082 > 0.05$. These results conclude that the regression model 1, namely the X_1 variable has a significant negative effect on Z , while the X_2 variable has no significant effect on Z .

Table 11. Results of Multiple Linear Regression Analysis 2
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.578 ^a	.334	.284	.83549	2.357

a. Predictors: (Constant), Inz, Inx2, Inx1

b. Dependent Variable: Iny

Source: Output of SPSS 20 (2022)

Table 12. Results of Multiple Linear Regression Analysis 2
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	2.474	.839			2.950	.005		
Inx1	1.743	.390	.701		4.466	.000	.676	1.480
Inx2	.419	.178	.344		2.356	.023	.780	1.283
Lnz	.366	.164	.331		2.224	.032	.751	1.332

a. Dependent Variable: Iny

Source: Output of SPSS 20 (2022)

Referring to the regression model 2 output in the "Coefficients" section, equation 2 is obtained, as follows: $Y = 2.474 + 1.743 X_1 + 0.419 X_2 + 0.366 Z + e_2$. The significance value of the three variables, namely $X_1 = 0.000$ and $X_2 = 0.023$ and $Z = 0.032$ is less than 0.05. These

results conclude that the regression model 2, namely the variables X1, X2 and Z have a significant effect on Y.

The path coefficient value can be seen in Figure 2 below:

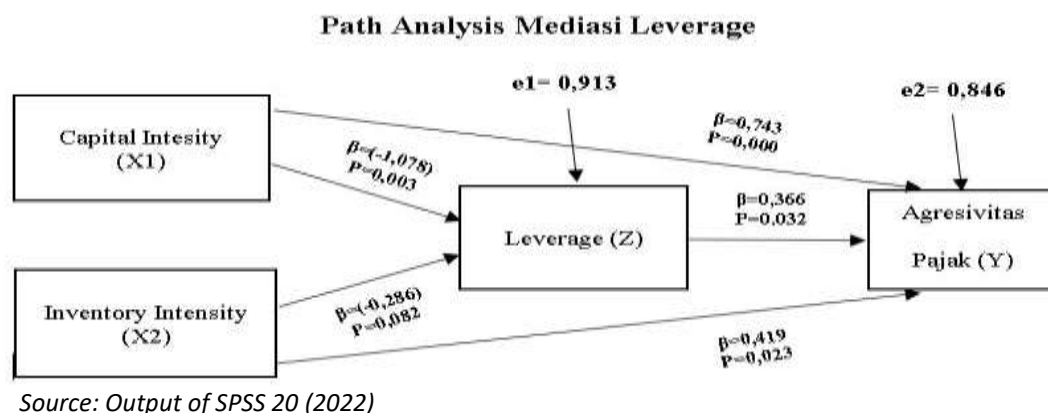


Figure 2. Path Analysis Mediasi Leverage

Discussion and Test Results of Individual Parameter Significance Test (Test Statistics t)

Table 13. Individual Parameter Significance Test Results (Test Statistics t)
Coefficients^a

Model	Unstandardized Coefficients		Standardized	t	Sig.	
	B	Std. Error	Beta			
	(Constant)	2.474	.839		2.950	.005
1	lnx1	1.743	.390	.701	4.466	.000
	lnx2	.419	.178	.344	2.356	.023
	lnz	.366	.164	.331	2.224	.032

a. Dependent Variable: lny

Source: Output of SPSS 20 (2022)

Based on the table above, some results are obtained as follows:

1. Effect of Capital Intensity on Tax Aggressiveness

The test results for the Capital Intensity variable have a t-count value of 4.466 > t-table 2.018 with a significance probability level of 0.000 which is smaller than the value of 0.05. The resulting beta coefficient value is 1.743. This shows that the H1 hypothesis is accepted, so it can be concluded that Capital Intensity has a positive effect on Tax Aggressiveness.

According to agency theory, managers as agents will try to manage the company well to maintain their position. One way to manage the company is to use idle funds in the company to invest in fixed assets with the aim of getting depreciation profits which will later be used as a deduction for corporate taxes (Darmadi & Zulaikha, 2013). So the higher the intensity of a company's fixed assets, the higher the company's practice of tax aggressiveness.

This is in line with research conducted by Fitria (2018) and Maulana (2020) which both show that capital intensity has a positive effect on tax aggressiveness.

2. Effect of Intensity Inventory on Tax Aggressiveness

The test results for the environmental cost variable have a t-count value of 2.356 > t-table 2.018 with a significance probability level of 0.023 which is smaller than the value of 0.05. The resulting beta coefficient value is 0.419. This shows that the H2 hypothesis is accepted, so it can be concluded that Inventory intensity has a positive effect on Tax Aggressiveness.

In agency theory, another way that managers do in managing the company and its taxes is to charge additional inventory costs such as storage and maintenance expenses to reduce company profits so as to reduce the company's tax burden (Darmadi & Zulaikha, 2013).

This study supports the results of Arizoni, et al (2020) and Maulana (2020) revealing that Inventory intensity has a positive effect on tax aggressiveness. They reveal that the company tends to increase the ending inventory and increase the costs contained in the inventory to reduce net income so that the tax burden is reduced.

3. Leverage Mediates Capital Intensity on Tax Aggressiveness

Direct Influence

Path analysis p1: Capital Intensity Path towards Tax Aggressiveness with a value of = 1.743 and a significant level = 0.000 (less than 0.05). These results can be interpreted that the Capital Intensity variable affects Tax Aggressiveness.

Path analysis p2: The path of Capital Intensity to Leverage with a value of = -1.078 and a significant level = 0.003 (less than 0.05). These results can be interpreted that the Capital Intensity variable hurts Leverage.

Path analysis p3: The Leverage Path towards Tax Aggressiveness with a value of = 0.366 and a significant level = 0.032 (less than 0.05). These results can be interpreted that the Leverage affects Tax Aggressiveness.

Indirect Influence

Calculate the standard error of the indirect effect coefficient (Sab)

$$\begin{aligned}
 Sab &= \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2Sab} \\
 &= \sqrt{(0.366)^2(0.336)^2 + (-1.078)^2(0.164)^2 + (0.336)^2(0.164)^2} \\
 Sab &= \sqrt{(0.133956)(0.112896) + (1.162084)(0.026896) + (0.112896)(0.026896)} \\
 Sab &= \sqrt{0,015123 + 0,031255 + 0,003036} \\
 Sab &= \sqrt{0,049414} \\
 Sab &= 0,222292
 \end{aligned}$$

Based on the results of this Saturday, the statistical t-value of the mediation effect was calculated with the following formula:

$$t = \frac{ab}{Sab}$$

$$t = \frac{(-1.078)(0.366)}{0,222292}$$

$$t = -1,774908$$

Because $t_{count} = -1.775$ is smaller than the table which is 2.018 with a significant level below 0.05, it can be concluded that Capital Intensity on Tax Aggressiveness with leverage as an intervening variable is rejected, or H_a is rejected and accepts H_0 .

The results of this study indicate that if the company is able to apply a good Capital Intensity without leverage, the Tax Aggressiveness will remain good because the value of the company is influenced by other factors.

The low leverage value indicates that the company's assets are financed by its own capital, while high leverage indicates that the assets are mostly financed by debt. In agency theory which states that when management (agents) invest in fixed assets by using the company's idle funds to get maximum profits, it will result in a depreciation burden that can be used as an action to reduce tax payments so that companies will increasingly take tax aggressiveness actions.

This research is not in line with research conducted by Widyari and Rasmini (2019) which states that leverage has a positive effect on tax aggressiveness. In other words, the higher the company's leverage, the higher the tax aggressiveness

4. Leverage Mediates Intensity Inventory on Tax Aggressiveness

Direct Influence

Path analysis p1: Inventory Intensity Path towards Tax Aggressiveness with a value of = 0.419 and a sign level = 0.023 (less than 0.05). These results can be interpreted that the Inventory Intensity variable has a positive effect on Tax Aggressiveness.

Path analysis p2: Inventory Intensity to Leverage with a value of = -0.286 and a sign level = 0.082 (greater than 0.05). These results can be interpreted that the Inventory Intensity variable does not affect Leverage.

Path analysis p3: The Leverage Path towards Tax Aggressiveness with a value of = 0.366 and a significant level = 0.032 (less than 0.05). These results can be interpreted that the Leverage variable affects Tax Aggressiveness.

Indirect Influence

Calculate the standard error of the indirect effect coefficient (Sab)

$$Sab = \sqrt{b^2 Sa^2 + a^2 Sb^2 + Sa^2 Sb^2}$$

$$Sab = \sqrt{(0.366)^2(0.161)^2 + (-0.286)^2(0.164)^2 + (0.161)^2(0.164)^2}$$

$$Sab = \sqrt{(0.133956)(0.025921) + (0.081796)(0.026896) + (0.025921)(0.026896)}$$

$$Sab = \sqrt{0.003472 + 0,002199 + 0,000697}$$

$$Sab = \sqrt{0.006368}$$

$$Sab = 0.079799$$

Based on the results of this Saturday, the statistical t-value of the mediation effect was calculated with the following formula:

$$t = \frac{ab}{Sab}$$

$$t = \frac{(-0.286)(0,366)}{0.079799}$$

$$t = -1.311746$$

Because tcount = -1.31175 is smaller than the table, which is 2.018 with a significant level below 0.05, it can be concluded that Inventory Intensity on Tax Aggressiveness with leverage as an intervening variable is rejected, or H_a is rejected and accepts H_0 .

The results of this study indicate that if the company is able to implement a good inventory intensity without leverage, the tax aggressiveness will remain good because the value of the company is influenced by other factors.

The leverage value contained in the company is not able to bridge the high level of inventory intensity causing a decrease in company profits due to additional costs for inventory.

This study is not in line with the research conducted by Maulana (2020) which suspects that there is a close influence between leverage, inventory intensity and tax aggressiveness.

5. Effect of Leverage on Tax Aggressiveness

The test results for the Leverage variable have a t-count value of 2.224 > t-table 2.018 with a significance probability level of 0.032 which is smaller than the value of 0.05. The resulting beta coefficient value is 0.366. This shows that the H_5 hypothesis is accepted, so it can be concluded that leverage has a positive effect on tax aggressiveness.

Agency theory explains that conflict will arise between the principal and the agent when the source of funding in the company is reduced. The conflict that arises is when a request for funding from the management for the company's needs is rejected by the principal, so that the management will owe to a third party to cover the company's financing (Ardyansyah, 2014).

This study supports the research conducted by Widyari and Rasmini (2019) which states that leverage has a positive effect on tax aggressiveness. In other words, the higher the company's leverage, the higher its tax aggressiveness. This is in line with the research of Fitria (2018) and Putri, et al (2019) which proves that leverage has a positive effect on tax aggressiveness. This shows that the company uses debt to minimize the company's tax burden

Conclusion

Based on the discussion of the results of the research entitled Tax Aggressiveness: The Role of Capital Intensity and Inventory Intensity with leverage as an intervening variable in mining industry companies in Indonesia in the period 2016 to 2020, the following conclusions can be drawn; Capital Intensity has a positive effect on Tax Aggressiveness; Inventory intensity has a positive effect on Tax Aggressiveness; Leverage is unable to mediate Capital Intensity on Tax Aggressiveness; Leverage is unable to mediate Inventory Intensity on Tax Aggressiveness, and Leverage has a positive effect on tax aggressiveness.

The results of this study which prove the effect of capital intensity, inventory intensity, and leverage as intervening variables on tax aggressiveness provide support for agency theory. The results of this study are used as input for companies, especially companies in the mining industry sector to be able to consider and be more careful in making decisions regarding tax aggressiveness actions because the supervision of the Directorate General of Taxes (DGT) is getting tighter so that the risk of detecting tax aggressiveness is also getting higher. The tax aggressiveness actions taken need to be ensured that they do not violate the provisions of the applicable tax regulations so that they do not pose a risk of receiving tax sanctions.

suggestions for further researchers to increase the period of research and use other industrial sector companies listed on the IDX as research objects and use other variables to mediate between the independent variable and the dependent variable so that the results obtained are more significant, using other tax aggressiveness measurements such as ETR and further research can add control variables.

References

- Andhari, P. A. S., & Sukartha, I. M. (2017). Pengaruh pengungkapan corporate social responsibility, profitabilitas, inventory intensity, capital intensity dan leverage pada agresivitas pajak. *E-Jurnal Akuntansi*, 18(3), 2115-2142.
- Darmadi, I. N. H., & Zulaikha, Z. (2013). *Analisis Faktor yang Mempengaruhi Manajemen Pajak dengan Indikator Tarif Pajak Efektif (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia pada Tahun 2011-2012)* (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).
- Dewinta, I. A. R., & Setiawan, P. E. (2016). Pengaruh ukuran perusahaan, umur perusahaan, profitabilitas, leverage, dan pertumbuhan penjualan terhadap tax avoidance. *E-jurnal Akuntansi*, 14(3), 1584-1615.
- Fitri, E. F. (2018). Pengaruh Capital Intensity, Inventory Intensity, Profitabilitas dan Leverage Terhadap Agresivitas Pajak. In *SENMAKOMBIS: Seminar Nasional Mahasiswa Ekonomi Dan Bisnis Dewantara* (Vol. 2, No. 1, pp. 1-14).

- Ghozali, I. (2016). Aplikasi Analisis multivariate dengan program IBM SPSS 23 (Edisi 8). *Cetakan ke VIII. Semarang: Badan Penerbit Universitas Diponegoro, 96.*
- Kasmir. (2010). Pengantar Manajemen Keuangan. Jakarta: Kencana Prenada Media Group.
- Maulana, I. A. (2020). Faktor-faktor yang mempengaruhi Agresivitas pajak pada perusahaan properti dan real estate. *KRISNA: Kumpulan Riset Akuntansi, 11(2)*, 155-163.
- Nastiti, A. M. T. (2020). *PENGARUH PROFITABILITAS, LEVERAGE, CAPITAL INTENSITY DAN INVENTORY INTENSITY TERHADAP TAX AVOIDANCE (Studi Empiris Pada Perusahaan Pertambangan Yang Terdaftar Di Bursa Efek Indonesia)* (Doctoral dissertation, Universitas Muhammadiyah Malang).
- Nofia, Umi Latifah. (2018). Pengaruh *CG, Capital Intensity* dan *Inventory Intensity* Terhadap Agresivitas Pajak Perusahaan Manufaktur yang Terdaftar di BEI. Penelitian. Program Pascasarjana Universitas IAIN. Surakarta.
- Oktavian, D. (2019). *Pengaruh Pofitabilitas, Leverage, Capital Intensity, Umur Perusahaan, Dan Kompensasi Eksekutif Terhadap Penghindaran Pajak* (Bachelor's thesis, Fak. Ekonomi dan Bisnis Uin Jakarta).
- Pinareswati, S. D., & Mildawati, T. (2020). Pengaruh Pengungkapan Csr, Capital Intensity, Leverage, Profitabilitas, Dan Inventory Intensity Terhadap Agresivitas Pajak. *Jurnal Ilmu dan Riset Akuntansi (JIRA), 9(9)*.
- PSAK No. 16: Aset Tetap. (2020). Standar Akuntansi Keuangan.
- Safitri, V. (2017). *Pengaruh Karakteristik Perusahaan Terhadap Tax Avoidance (Studi Empiris Perusahaan Ritel yang Terdaftar di BEI Periode 2011-2015)* (Doctoral dissertation, University of Muhammadiyah Malang).
- SETYADI, A., & Ayem, S. (2019). Pengaruh profitabilitas, ukuran perusahaan, komite audit dan capital intensity terhadap agresivitas pajak (studi pada perusahaan perbankan yang terdaftar di BEI periode tahun 2013-2017). *Jurnal Akuntansi Pajak Dewantara, 1(2)*, 228-241.
- Sinaga, C. H., & Suardikha, I. M. S. (2019). Pengaruh leverage dan capital intensity pada tax avoidance dengan proporsi komisaris independen sebagai variabel pemoderasi. *E-Jurnal Akuntansi, 27(1)*, 1-32.
- Siregar, R., & Widyawati, D. (2016). Pengaruh karakteristik perusahaan terhadap penghindaran pajak pada perusahaan manufaktur di BEI. *Jurnal Ilmu dan Riset Akuntansi (JIRA), 5(2)*.

Widyari, N. Y. A., & Rasmini, N. K. (2019). Pengaruh kualitas audit, size, leverage, dan kepemilikan keluarga pada agresivitas pajak. *E-Jurnal Akuntansi*, 27(1), 388-417.

Windaswari, K. A., & Merkusiwati, N. K. L. A. (2018). Pengaruh Koneksi Politik, Capital Intensity, Profitabilitas, Leverage dan Ukuran Perusahaan Pada Agresivitas Pajak. *E-Jurnal Akuntansi*, 23(3), 1980-2008.

www.idx.co.id