



## Understanding Tax Avoidance in the Indonesian Mining Sector: The Impact of Financial Distress and Capital Intensity

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### ARTICLE INFO

Keywords: Tax Avoidance, Financial Distress, Capital Intensity

*Received : 14 March*

*Revised : 26 April*

*Accepted : 28 May*

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### ABSTRACT

This study aims to examine the effect of Financial Distress and Capital Intensity, on tax avoidance in mining companies listed on the Indonesia Stock Exchange during the period 2020-2023. The sample in this study consists of 53 companies. The sampling technique used is purposive sampling, which involves selecting samples based on specific criteria. The research approach used in this study is quantitative. The data analysis technique used is multiple linear regression analysis, which aims to explain the relationship between independent variables and the dependent variable, assisted by the Eviews 12 software. The regression results from the partial test indicate that Financial Distress and Capital Intensity do not have an effect on tax avoidance practices. This study is expected to provide recommendations to the government or the Directorate General of Taxes and to motivate companies to engage in tax avoidance practices that comply with tax regulations

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## **INTRODUCTION**

Company operations that limit the state's ability to collect money and carry out policies that have been implemented by law by paying taxes whose purpose is to reduce the burden on the company so as to optimize profits and wealth is a behavior called tax avoidance (Mocanu et al., 2021). The practice of tax avoidance has experienced an exponential increase in public attention. In recent years, large world companies and national companies are also not free from the practice of tax avoidance. In practice, multinational companies often move their profits to countries known as tax havens. This is done to reduce the amount of profit reported at the place of operation, so that the expenses paid are lower than they should be (taxjustice.net).

There are several ways to avoid taxes of large multinational companies in several countries, especially in the mining sector, the mining industry is included in the type of sector prone to corruption stated by the National Corruption Eradication Commission (KPK). The Corruption Eradication Commission (KPK) also found that expenditures on mining companies were greater than revenues of IDR 15.9 trillion in mining tax payments in forest areas (DDTC News, 2019). The mining sector is one of the sectors that contributes to national development which is a source of income for the state budget (Arinaldo & Adiatama, 2019). The mining sector in recent years has become a sector that contributes greatly to the international and national economy. The mining sector is able to generate significant economic value through company profits, but behind this great potential, the tax contribution from this sector is still relatively low (Katadata.co.id, 2019).

Indonesian companies, especially in the mining sector, have engaged in tax evasion. Indications of tax evasion are found in a number of companies, namely PT Kaltim Prima Coal where this case is estimated to be a loss of 2.1 T. The DGT has determined that its Finance director is a suspect related to the allegations in the tax evasion case (<https://bisnis.tempco.co/>). Furthermore, PT Multi Sarana Avindo (MSA), at PT Multi Sarana Avindo (MSA), this case occurred due to allegations that MSA underpaid value added tax (VAT). The Directorate General of Taxes, which has the authority, filed charges in 2007, 2009, and 2010. The Directorate General of Taxes charged MSA with a nominal amount of 7.7 billion but the DGT's lawsuit lost in the tax court because it was materially not proven. In 2018, the Directorate General of Taxes (DGT) filed an indictment against MSA. The suspicion arose due to a glaring discrepancy between the volume and amount of tax paid. The DGT managed to explain the details presented in MSA's financial statements (sayangtaxconsultants.com). Finally, the company PT Adaro Energy reported in 2019. PT Adaro Energy's profits were diverted to offshore networks to reduce tax bills in Indonesia including for public services by US\$14 million per year. Based on a report from Global Witness, Adaro made a payment of US\$125 million. The amount was reported to compare to obligations paid in Indonesia (Merdeka, 2019).

One of the determinants of tax avoidance is Financial Distress, which is the deterioration of economic conditions and unstable financial conditions and occurs continuously for several years can increase the risk of bankruptcy in a

company (Richardson et al., 2015) . Financial distress tends to be at risk of tax avoidance due to companies experiencing a lot of financial pressure so that opportunities for tax avoidance are easier to do with the increase in tax value incentives, aligned by research Richardson et al., (2015) , Dang & Tran, (2021) and Ariff, (2023) ; Richardson et al., (2015) argues in their research results that the increase in tax avoidance practices in a company is due to the level of financial distress that occurs in the company increasing. The same thing is stated by ( Dang & Tran 2021) When companies face the risk of capital shortages, the tendency to carry out avoidance techniques so that it is in line (Ariff, 2023) where companies from 32 countries during the COVID-19 pandemic period suggest companies experiencing financial difficulties show low tax avoidance before and during the pandemic period, The authors found higher tax avoidance practices during the pandemic compared to the pre-pandemic period, but the pandemic increased the negative relationship between financial difficulties and tax avoidance.

Another determinant of tax avoidance is Capital intensity, a description of how a company invests in its fixed assets. Monika et al (2021) To be able to minimize the tax burden for a company, the efforts made in the company are invested in fixed assets as part of the financial strategy. This is because depreciation on fixed assets functions in tax reduction if it has a high capital intensity that can provide opportunities for lower rates. Several studies by Dwiyanti & Jati (2019); Pattiasina et al (2019) support that capital intensity has no influence on tax avoidance, so the clear relationship between corporate responsibility and capital intensity has no influence on it.

The assessment of these variables in the context of the mining sector in Indonesia, which is currently experiencing tax compliance issues, makes this study of interest to the authors. The impact of financial distress and capital intensity has been the subject of conflicting findings in the past, particularly in the context of different industries. However, in Indonesia in particular the mining sector has a unique environment where the interaction of these factors can be observed. Despite its low tax contribution compared to its economic impact, PwC Indonesia revealed that 70 percent of the top 40 mining companies do not practice tax transparency. In research (Ivanda et al., 202 )4 suggests that tax transparency in mining companies is very important because mining companies can track the monetary financial benefits they provide to society which can show influence for the Republic of Indonesia because mining companies are the second largest exporter and producer in the country. This study analyzes how the influence of financial distress and capital intensity can affect tax avoidance behavior in the mining sector which can contribute to the revenue and development of the country.

## LITERATURE REVIEW

### Agency Theory

This theory explains the relationship between agent and principal which was first explained by Jensen & Meckling (1976). In a contract, authority is given to the agent in making decisions. The general understanding of agent and principal explains the relationship between management and shareholders, where the agent represents employees in the company and the principal represents the owner. So that the principal has the authority to make decisions to the agent in carrying out company activities and projects on behalf of the principal Jensen & Meckling (1976). From this description, the point of view of agency theory, one that can be influenced by agency problems due to differences in the objectives of the principal and agent is tax avoidance, the most commonly experienced relationship, the principal's interest requires the agent to be able to minimize the tax burden as much as possible so that taxes are low and generate high profits so that it can benefit the company (Widayanti & Rikah, 2021). This is comparable to research (Pertiwi et al., 2020) suggests that principals want agents to pay taxes in accordance with the amount in accordance with reality, while agents tend to minimize the tax burden in order to get high compensation and profits, and this can trigger tax avoidance.

### Tax Avoidance

In the process of avoiding taxes, many companies reduce the expenses that should be paid so that it becomes a violation of applicable regulations Kuswara & Sari (2022). The main purpose of companies doing tax avoidance is the company's desire to increase profitability and cash flow by minimizing the tax burden (Solihin et al., 2020). This study uses CETR in measuring tax avoidance. Cash tax payments are found in the financial statements in the cash flow of operating activities in the income tax payment account, and income before income tax is in the current year's income statement (Armstrong & Blouin, (2012).

$$\text{Cash Tax Rate} = \frac{\text{Pembayaran Pajak Tunai}}{\text{Laba Sebelum Pajak}}$$

### Financial Distress

One of the factors driving tax avoidance is the company's financial condition Richardson et al., (2015). The way to evaluate the company is to see the condition of its financial performance, because it can provide a healthy or unhealthy view of the company (Ivanda et al., 2021)4. The world economy often experiences ups and downs so that the conditions of economic actors are not always good and this will cause financial difficulties and the risk of experiencing bankruptcy (financial distress) and this tends to trigger tax avoidance Dhamara & Violita (2018). When a company experiences higher financial difficulties, the company experiences bankruptcy and the possibility of tax avoidance is very high Cita & Supadmi (2019). This research is measured by the Altman Z Score formula (Altman, 1968), including:

$$Z = 1.2A + 1.4B + 3.3C + 0.6D + 1E$$

A = "Working capital / Total assets"

B = "Retained earnings / Total assets"

C = "Earnings before interest and taxes / Total assets"

$D = \text{"Market value of equity to book value / Total debt"}$

$E = \text{"Sales / Total assets"}$   $Z = \text{"Overall index"}$

### Capital Intensity

The process of assessing financial results, one of the variables indicated will affect tax avoidance, namely capital intensity Monika et al., (2021) . This capital intensity is a description of how a company invests in its fixed assets. According to Pattiasina et al. (2019) capital intensity is one of the factors of tax avoidance because it affects the level of tax rates that will directly be owned by the company in reducing tax liabilities through depreciation of assets each year, where these costs can be deducted from the tax payable so that the burden is owned by the company which can affect the amount of taxable income that must be paid (Pattiasina et al., 2019). Capital Intensity is measured using the following formula:

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

The following is the framework in this study:

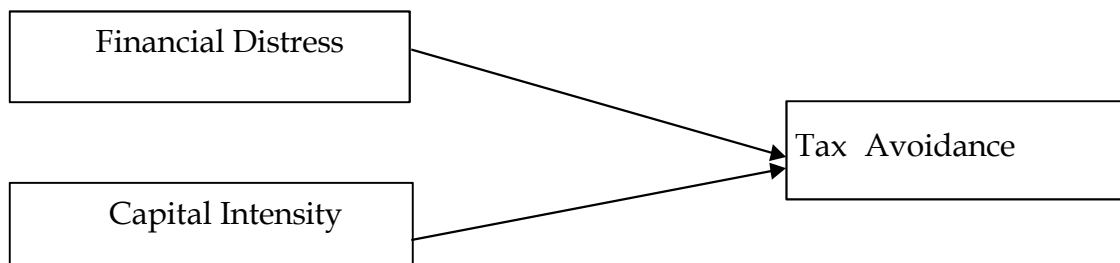


Figure 1. Schematic Framework

### METHODOLOGY

The method uses hypotheses to see whether there is a relationship or not by analyzing regression, as explained by Sekaran & Bougie (2016). The research focus is on financial distress, capital intensity, R&D expenditure, tax avoidance. Quantitative analysis technique by analyzing the financial statements of the mining sector in 2020-2023. The focus of research by looking at a sample of 53 companies listed on the IDX. The data is analyzed by regression analysis using eviews 12 software, namely CEM, FEM, REM which is the panel data analysis technique used. Panel data processing involves three testing steps: Hausman test, Chow test, and Chow test. CEM and FEM are contrasted in the Chow Test. FEM and REM are contrasted in the Hausman Test. The panel data regression is as follows:

$$TA_{it} = \alpha_0 + \alpha_1 FD_{it} + \alpha_2 CI_{it} + \epsilon_{it}$$

Description:

TA<sub>it</sub> : Tax Avoidance

$\alpha_0$  : Constant

$\alpha_1, 2$  : Regression coefficient

FD : Financial Distress

CI : Capital Intensity

$\epsilon_{it}$  : Confounding Variable (error term)

## RESULT

### Descriptive Statistics Results

The results of descriptive statistics for all variables are presented in Table 1.

Table 1. Descriptive Statistics

	TA	FD	CI
<b>Mean</b>	0.276	4.102	0.159
<b>Median</b>	0.109	2.547	0.030
<b>Maximum</b>	21.170	149.6	22.172
<b>Minimum</b>	-12.660	-17.13	-18.636
<b>Std.Dev.</b>	2.2031	12.323	2.559
<b>Skewness</b>	4.276	9.057	2.741
<b>Kurtosis</b>	55.39	100.31	52.714
<b>Jarque-Bera</b>	24893	86546	22097
<b>Probability</b>	0.000	0.000	0.000
<b>Sum</b>	58.605	869.7	33.723
<b>SumS</b>	1024.1	32045.7	1382.6
<b>q. Dev.</b>			
<b>Observations</b>	212	212	212

The data in table 1 shows the results of descriptive statistics, it is known that tax avoidance has an average of 0.276 which means that the market value of mining companies is 27.6% of the total cash tax rate, while the median value is 0.109. The range of tax avoidance includes significant variation, with the lowest value reaching -12,660 and the highest value reaching 21,170. These results reflect the diversity of tax avoidance present in the research sample, showing significant variation in tax avoidance focused on mining companies. The firm value data tends to be homogeneous and close to the mean, as seen from the standard deviation of the values, which is 2.203, higher than the mean value of 0.276. This suggests that, while there is still notable variation between the lowest and highest values, the majority of the sample organizations have very consistent enterprise values.

The descriptive results of financial distress in all research samples measured using the Altman Z score show a minimum value of -17.13 and a maximum value of 149.6, with an average of 4,102. This shows that mining sector companies in the 2020-2023 period are in the middle zone, namely between the financial distress zone and the safe zone. In addition, the standard deviation value of financial distress is 12.323. Because the standard deviation value is greater than the average value (mean), this indicates a significant variation in financial distress between the companies studied.

The descriptive results of the capital intensity variable in the entire research sample show an average value of 0.159, which means that mining companies in the research sample have disclosed 15.9% of their total assets. The range of capital intensity values varies, with the lowest value of -18,636 and the highest value reaching 22,172, reflecting the diversity in the distribution of

capital intensity. The standard deviation value of 2.559 which is greater than the mean value indicates that the capital intensity in the data tends to be inhomogeneous, this indicates a large diversity of data variations.

**Regression Model Specification Test Results**

Table 2. Regression Model Specification Test.

<b>Chow Test</b>				
EffectsTest	Statistic	d.f.	Prob.	
Cross-sectionF	1.361	(52,157)	0.0759	
Cross-sectionChi-square	146.80	52	0.0094	

<b>Hausman Test</b>				
Test Summary	Chi-Sq. Statistic	Chi-Sq.d.f.	Prob.	
Cross-sectionrandom	0.170054	2	0.918	

Table 2 REM model is more appropriate to use compared to FEM and Common Effects. Therefore, the researcher uses the panel data regression estimation method on the Common Effects model as listed below:

**Panel Data Regression Results Random Effect Test Cross-Section Model**

Table 3. Panel Data Regression Results Random Effect Test Cross-Section Model

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.166	0.120	1.381	0.168
FD	0.001	0.008	0.235	0.813
CI	0.639	0.039	16.211	0.000
EffectsSpecification			S.D.	Rho
Cross-sectionrandom			0.453	0.0934
Idiosyncraticrandom			1.412	0.9066
WeightedStatistics				
R-squared	0.559	Meandependentvar		0.232
AdjustedR-squared	0.554	S.D. dependent var		2.107
S.E.ofregression	1.406	Sumsquaredresid		413.2
F-statistic	132.5	Durbin-Watsonstat		1.951
Prob(F-statistic)	0.000			
UnweightedStatistics				
R-squared	0.556	Meandependentvar		0.276
Sumsquaredresid	454.4	Durbin-Watsonstat		1.774

Table 3 shows that the t-stat test on the Random Effects model in the cross-section produces better results, with 3 variables showing significance at the (α 5%) level. The adjusted R<sup>2</sup> value is 0.554. The probability value of the F-stat of 0.000 indicates that the model is significant. Therefore, the regression equation for this study is:

$$TAit = -1.200 + 0.001FDit + 0.639 CIit + \epsilon$$

The result of the equation is interpreted as a constant result  $\alpha$  of -1.200 which states that if variable X is constant, then variable Y (TA) will decrease by 1.2 percent. Furthermore, the value obtained by financial distress of 0.001 shows a positive value. This indicates that financial distress with the proxy measurement of FI will increase the percentage value for tax avoidance practices by the coefficient. Therefore, the greater the amount of financial distress, the higher the tax avoidance practices. Then the value obtained by capital intensity (CI) is 0.639 and shows a negative value. This shows that capital intensity has no effect on tax avoidance practices.

**F Test Results**

Table 4. Statistical Values of F Test and T Test

Variable	Coefficient	Std.Error	t-Statistic	Prob.	
C	0.166	0.120		1.381	0.168
FD	0.001	0.008		0.235	0.813
CI	0.639	0.039		16.211	0.000
Effects Specification					
			S.D.	Rho	
Cross-section random			0.453		0.0934
Idiosyncratic random			1.412		0.9066
Weighted Statistics					
R-squared	0.559		Meandependentvar		0.232
Adjusted R-squared	0.554		S.D. dependent var		2.107
S.E. of regression	1.406		Sumsquaredresid		413.2
F-statistic	132.5		Durbin-Watsonstat		1.951
Prob(F-statistic)	0.000				
Unweighted Statistics					
R-squared	0.556		Meandependentvar		0.276
Sumsquaredresid	454.4		Durbin-Watsonstat		1.774

Table 4 shows, the Prob (F-statistic) value of 0.000 < 0.05 indicates that the independent variables have a simultaneous influence on the dependent variable.

**DISCUSSION**

**Financial Distress on Tax Avoidance**

The financial difficulty variable in this study has a significance value of 0.0000, which is smaller than 0.05, based on the regression test results. This shows that tax avoidance is positively influenced by financial difficulties, so H1 is accepted. According to Richardson et al., (2015) ; Dhamara & Violita (2018) . If critical financial conditions will successively experience bankruptcy. Financial distress tends to risk tax avoidance because when a company experiences financial stress, the benefits of tax avoidance outweigh the costs by increasing incentives to avoid taxes Dang & Tran, (2021) . This result is also supported by Ariff, (2023) which states that financial distress is a situation avoided by every company. This is because investors or creditors will be more careful in making investments or providing loans to companies that are experiencing financial distress. To reduce the problem of financial distress, part of the board of directors

will do things that will be profitable for several sides such as restructuring credit or extending credit time, not making dividend payments, In fact, companies experiencing financial distress may see tax avoidance as a profitable strategy. By reducing the tax burden, the company seeks to still achieve profit targets and meet its financial obligations. The higher the level of financial distress experienced by the company, the tendency to engage in tax avoidance also increases. Conversely, when the company's financial condition is relatively stable or the financial pressure is low, then the possibility of the company doing tax avoidance tends to decrease because both have a positive relationship Dang & Tran, (2021) . This also means that the positive characteristics inherent in the company do not rule out the possibility of negative treatment that will be carried out.

### **Capital Intensity on Tax Avoidance**

Regression analysis in the study shows that capital intensity has a significant value of 0.639 which is greater than 0.05. This indicates that capital intensity has a negative effect on tax avoidance, so H2 is rejected. Capital intensity focuses on the large depreciation expense of fixed assets which can be allocated to the resulting depreciation expense because most of the company's capital is allocated to fixed assets in the company's operational activities (Pattiasina et al., 2019). However, even though the significance of expenses and depreciation is not enough to encourage companies to do relevant tax avoidance. In addition, high capital intensity can benefit the company because it causes a reduction in profits in that period. However, according to (Wiguna & Jati, 2017), not all depreciation is recognized in the tax expense, with this event, the company will increase taxable income and can increase the tax burden. The results showed that capital intensity has no effect on tax avoidance practices. In practice, several studies (Dwiyanti & Jati, 2019) say that capital intensity has no effect on tax avoidance practices, and is supported by Pattiasina et al. (2019) which proves that capital intensity has no effect on corporate responsibility using a research sample of 32 banking data listed on the Indonesia Stock Exchange. A high level of capital intensity in a business entity also opens up opportunities to reduce the amount of tax paid. Findings from Monika et al. (2021) and Pattiasina et al. (2019) reinforce this view, businesses with high capital intensity usually pay less tax, however, according to (Dharma & Noviari, 2017) the decrease in taxable income caused by depreciation is still considered insignificant for companies to practice tax avoidance because the company considers that by increasing the total assets in the company by adding buildings, buildings, equipment and others can support the company's operational activities properly and become an innovation for the company to maximize profits, because high fixed assets can add value to the company by improving the quality of the company's products and the company's operational efficiency.

### **CONCLUSION AND RECOMMENDATION**

Based on the research explanation, tax avoidance has a significant and positive impact. This research suggests that more data is needed to explore the relationship between tax avoidance and corporate financial success. On the other hand, companies that have strong and responsible accounting systems, by

reducing tax avoidance practices, can improve overall company performance. These findings emphasize the importance of transparency and accountability in financial reports, as well as compliance with tax regulations that are more important than avoiding legal problems. Good tax compliance can build a positive image and increase trust in the long run. The findings in this study in line with agency theory, which suggests that management as an agent has the responsibility to maximize company profits. One way to do this is through tax avoidance strategies, which in turn can increase dividend distribution to shareholders. However, this study has limitations, especially in the relatively small sample size, which only involves 53 companies listed on the IDX.

#### **FURTHER STUDY**

Future research is recommended to add other variables. Researchers' suggestions for this study are that future researchers can add or change other variables such as Corporate Social Responsibility (CSR) and Corporate Financial Performance (CFP). In addition, the scope of the industrial sector can also be expanded to other fields such as health, infrastructure, property, raw materials, or the service sector, in order to obtain more diverse findings.

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