The Effect of Capital Intensity, Company Age, and Company Size on Tax Avoidance

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Abstract

Taxes are mandatory contributions to the state by individuals or entities of a coercive nature. The company is one of the taxpayers who must carry out their obligations in carrying out tax payments. But from the company side, tax is a burden that will reduce net profit so that the company will look for ways to reduce the tax burden, one of which is through tax avoidance. This study aims to examine and obtain empirical evidence about the effect of capital intensity, company age, and company size on tax avoidance at mining sector companies listed in Indonesian Stock Exchange in the period of 2016-2021. The number of samples was determined using purposive sampling technique with a total of 66 samples. Tax Avoidance in this study was measured using the effective tax rate (ETR) value. Data were analyzed using panel data regression analysis. The results of this study indicate that capital intensity and company size have a positive effect on tax avoidance, while company age has no effect on tax avoidance.

Keywords
Capital Intensity, Company Age, Company Size, Tax Avoidance, ETR.

1. Introduction
Taxes are the largest source of income for the Indonesian economy, which is used as a budget for regular state spending and national development in accordance with the KUP Law No. 28 of 2007 which contains general provisions for tax procedures. Tax is the contribution of the taxpayer to the state owed by individuals or entities that are coercive under the law by not getting direct reciprocity and is used for state purposes for the greatest prosperity of the people. Tax avoidance is an effort made by taxpayers to reduce or eliminate all tax debts that are carried out legally by taking advantage of existing tax regulatory loopholes. This is an obstacle in collecting taxes in the end of which it will reduce state revenue from the tax sector. To reduce tax avoidance practices carried out by companies, in a company it is necessary to manage the company well. Based on data from the State Budget, tax revenue in Indonesia remains the largest source of revenue in the State Budget. The source of this tax revenue is used by the state to meet the needs of the state.

According to Putri and Putra (2017) stated that tax avoidance is a legal way to carry out tax avoidance by taking advantage of the weaknesses of tax law, but resulting in the non-achievement of state goals to maximize state revenue from the tax sector. Tax avoidance on the one hand is allowed and does not violate the rules but the government is less receptive because it greatly affects the state's tax revenue, so the state does not get the maximum income. One of the cases of companies that take advantage of the weakness of tax law to do tax avoidance is PT. Adaro Energy.

The existence of inconsistencies carried out by previous research, such as in the variable of capital intensity according to research conducted by Nugraha and Mulyani (2019) and Suciarti et al. (2020) capital intensity affects tax avoidance because companies that have high fixed assets do not necessarily have tax avoidance purposes, but it is possible that the company has other objectives, namely to run company operations. Meanwhile, according to Masrurroch et al. (2021) which states that capital intensity does not affect tax avoidance because most of the assets owned by the company are assets for resale. Therefore, the depreciation cost of fixed assets in the company that is sampled by this study cannot be intended for tax avoidance practices but tends only to run the company's operations. Then on the company age variable according to research conducted by Dewinta and Setiawan (2016) stated that company age affects tax avoidance because the longer the company operates, the higher the company's tax

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avoidance efforts will be because companies that operate longer will be more skilled and more experienced in tax affairs. Meanwhile, according to Bratadilaga et al. (2020) and Permatasari (2020) which states that the company age does not affect tax avoidance because the higher the level of profit generated by the company, it will increase the amount of income tax, because the profit generated by the company is the basis for the imposition of income tax so that the company will try to avoid tax increases by doing tax avoidance. Then the company size according to the research of Dewinta and Setiawan (2016) and Anggara and Pratomo (2018) states that the company size has a positive effect on tax avoidance, which means that the greater the company age, the higher the tax avoidance activity in the company caused because companies with a relatively high total asset amount tend to be more able and more stable in making a profit. Meanwhile, according to Masrurroch et al. (2021) and Silvia (2017) stating that the company age has no effect on tax avoidance because the company chooses to comply with applicable tax provisions. The company does not want to take risks with the inspection process or the imposition of sanctions that may affect the company's image.

From the results of the research that is still inconsistent, it encourages researchers to retest with the same variables, namely capital intensity, company age and company age on tax avoidance in mining sector companies listed on the Indonesia Stock Exchange (IDX) in the 2016-2021 period.

1.1 Objectives

This study aims to determine whether there is a simultaneous influence between capital intensity, company age and company size on tax avoidance. Also, to find out whether there is a partial influence between capital intensity, company age and company size on tax avoidance in mining sector companies listed on the Indonesia Stock Exchange (IDX) in the year 2016-2021.

2. Literature Review

Tax avoidance is an effort to avoid taxes carried out by taxpayers legally and safely to reduce or remove all tax debts by not conflicting with tax provisions (Pohan 2016). This is an obstacle in collecting taxes in the end of which it will reduce state revenue from the tax sector. To reduce tax avoidance practices carried out by companies, in a company it is necessary to manage the company well.

$$ETR = \frac{Tax\ Expense}{Taxable\ Income} \qquad (1)$$

According to Nugraha and Mulyani (2019) capital intensity is a decision made by company managers that aims to increase profits by investing in the form of fixed assets. Capital intensity is how large the proportion of the company's fixed assets in the total fixed assets owned. The selection of capital in the form of fixed assets will cause depreciation burdens which result in reduced income earned by the company. With this, it can spur companies to carry out tax avoidance practices by increasing capital by adding fixed assets. The higher the capital activity, the higher the tax avoidance, and vice versa (Nugraha and Mulyani 2019).

$$CI = \frac{Total\ Fixed\ Asset}{Total\ Asset} \qquad (2)$$

According to Dewinta and Setiawan (2016) company age is the period of how long the company is established and can survive on the IDX. Company age also shows how long the company will continue to exist and be able to compete with others in the business world. In the long-term goals of the company that are associated by financial goals, namely the presence of investors and improving the performance of the company. The age of the company is calculated from the time the company is established based on the deed of establishment until the research is carried out.

$$AGE = Year\ t - Year\ n \qquad (3)$$

According to Dewinta and Setiawan (2016) Company size is able to influence a company in fulfilling its tax obligations and is a factor that can cause tax avoidance. Company age is a scale used in measuring total assets consisting of company assets, stock market value, average level of sales and the number of sales in a company.

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$$SIZE = Ln\ (Total\ Asset) \qquad (4)$$

Based on the explanation above, the researcher formulated the research hypothesis as follows:
H1: Capital intensity has a partial positive effect on Tax Avoidance.
H2: Company age has a partial negative effect on Tax Avoidance.
H3: Company size has a partial positive effect on Tax Avoidance.

3. Methods

The population in this study is mining sector companies listed on the Indonesia Stock Exchange (IDX) in 2016-2021. In this study, the data used were obtained from the financial statements of each company. The population of mining sector companies amounts to 47 companies. Based on the results of purposive sampling with predetermined criteria, 13 companies with a total of 66 samples were obtained with the presence of 12 outliers. (Table 1)

Table 1. Sample Selection Criteria

No	Description	Total
1.	Mining sector companies listed on the Indonesia Stock Exchange (IDX) from 2016-2021	47
2.	Inconsistent mining sector companies publish audited annual reports on the Indonesia Stock Exchange (IDX) for the period 2016-2021	(6)
3.	Mining sector companies whose financial statements are incomplete in 2016-2021	(5)
4.	Mining sector companies that suffered losses on the income statement during 2016-2021	(23)
	Total research samples	13
	Total samples in the research period (13 x 6)	78

This research uses panel data regression analysis by using EViews version 12. The model uses in this research is shown in the following panel data regression equation:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \qquad (5)$$

Description:
$\boldsymbol{Y}$ = Tax avoidance
$\boldsymbol{a}$ = Constant
$\boldsymbol{X_1}$ = Capital Intensity
$\boldsymbol{X_2}$ = Company Age
$\boldsymbol{X_3}$ = Company Size
$\boldsymbol{\beta_1\ \beta_2\ \beta_3}$ = Regression Coefficient
$\boldsymbol{e}$ = Error Term

4. Data Collection

Data collection is a way that researchers can use to obtain quantitative information through respondents based on the scope of the study. Secondary data is data obtained by researchers from previous sources (Sugiyono 2018). The data sources used in this study are financial statements of mining sector companies listed on the Indonesia Stock Exchange for the 2016-2021 period, previous research, and supporting reference books related to this research. Researchers collected data on capital intensity, company age, and company size to determine the level of tax avoidance.

5. Results and Discussion

5.1 Descriptive Statistical Analysis

From the test results of descriptive statistical analysis in Table 2, tax avoidance has a mean value is 0.272586 with a standard deviation value of 0.0604215. These results show that the mean value is greater than the standard deviation, so it can be interpreted that the tax avoidance variable data does not vary. The capital intensity has a mean value of

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0.219647 and a standard deviation of 0.1036807. The mean value indicates a number greater than the standard deviation value, so it can be interpreted as the capital intensity variable data that does not vary. The company age variable has a mean value of 10.67 and a standard deviation of 4.950. The mean value indicates a number greater than the standard deviation value, so it can be interpreted as the company's age variable data that does not vary. In the variable company size has an average of 29.906524 and a standard deviation of 1.1208169. The average value shows a number greater than the standard deviation value, so it can be interpreted that the company size variable has data that does not vary.

Table 2. Descriptive Statistics Test Results

	N	Minimum	Maximum	Mean	Deviation Std.
Tax avoidance	66	0,1492	0,4630	0,272586	0,0604215
Capital Intensity	66	0,0311	0,5751	0,219647	0,1036807
Company Age	66	2	24	10,67	4,950
Company Size	66	28,0784	32,3167	29,906524	1,1208169

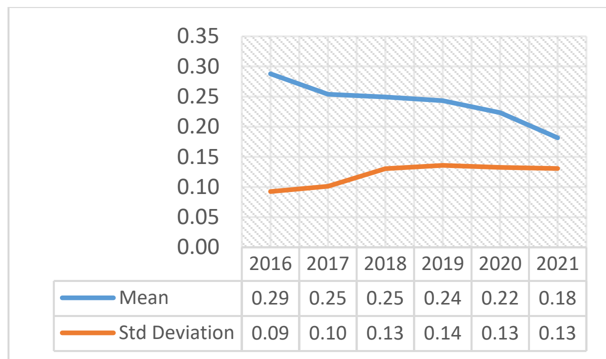

Figure 1. Mean and Deviation of Capital Intensity

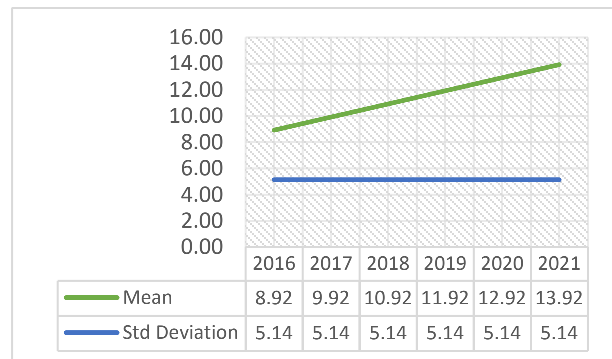

Figure 2. Mean and Deviation of Company Age

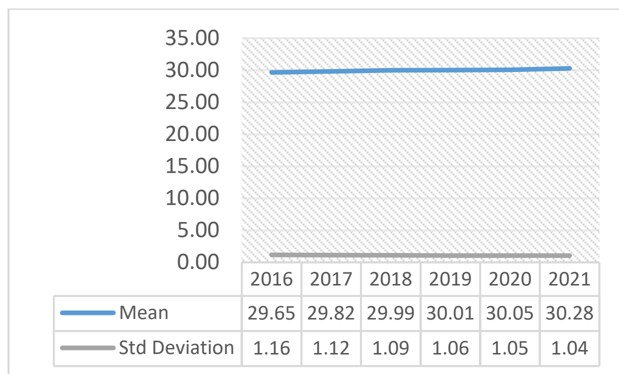

Figure 3. Mean and Deviation of Company Size

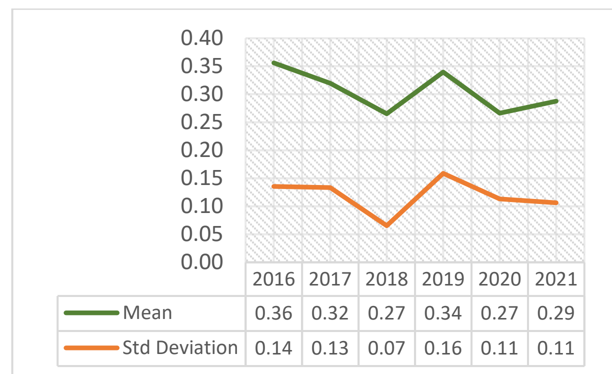

Figure 4. Mean and Deviation of Tax Avoidance

From all the Figures 1- 4 above, this shows that all variables have a mean value that is greater than the standard deviation value, so it can be interpreted that all variables' data does not vary.

5.2 Results

These study results showed that the data were normally distributed and free of multicollinearity, heteroscedasticity, and autocorrelation. The selection of the panel data model requires three tests, namely the Chow, Hausman, and Lagrange Multiplier tests. The rest of the results showed that the best panel data regression used the common effect model. (Table 3)

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Table 3. Regression Results

Hypothesis	Coefficient	Probability	Results
C	-0.3888	0.0450	
CI → TA	0.1618	0.0368	Support for H1
AGE → TA	-0.0026	0.1224	Not Support for H2
SIZE → TA	0.0218	0.0012	Support for H3
F-statistic	4.9150	0.0040	
Adjusted R^2	0.1921		

Source : data processing results (2022)

5.3 Discussion

5.2.1 Effect of Capital Intensity on Tax Avoidance

Based on table 3 capital intensity partially has a positive effect on Tax Avoidance, so that it supports H1. This is because companies that have high fixed assets do not necessarily have the purpose of conducting tax avoidance, but it is possible that the company has other goals, namely, to run the company's operations. This is in line with research conducted by Suciarti et al. (2020) and Nugraha and Mulyani (2019) which states that Capital Intensity partially has a positive effect on tax avoidance.

5.2.2 Effect of Company Age on Tax Avoidance

The age of the Company partially did not have a significant effect on tax Avoidance, so it did not support H2. This is because of the age that has long been listed on the Indonesia Stock Exchange, it will reveal social responsibility to increase investor confidence in order to continue investing so as not to take advantage of loopholes to carry out tax avoidance actions. This is in line with research conducted by Bratadilaga et al. (2020) and Permatasari (2020) which states that the age of the company does not affect tax avoidance.

5.2.3 Effect of Company Size on Tax Avoidance

The size of the Company partially positively affects the Tax Avoidance, so that it supports H3. This is because the higher the level of profit generated by the company, it will increase the amount of income tax, because the profit generated by the company is the basis for the imposition of income tax so that the company will try to avoid tax increases by doing tax avoidance. This is in line with research conducted by Dewinta and Setiawan (2016) and Anggara and Pratomo (2018) which shows that the size of the company partially affects the positive effect on tax avoidance.

6. Conclusion

The test result found that the capital intensity and company size positively affected Tax Avoidance. In contrast, company age did not affect Tax Avoidance. This study concludes that the higher the capital intensity and the company age, the higher the Tax Avoidance carried out by the company so that it can help the company to get a good reputation from stakeholders. This study concludes that the higher the capital intensity and company age, the higher the tax avoidance carried out by the company so that it can have an impact on the State Budget. This study aims to determine the influence of independent variables consisting of capital intensity, company age and company size on a dependent variable, namely tax avoidance on mining sector companies listed on the Indonesia Stock Exchange for the 2016-2021 period, which consists of 13 companies with a research period of 6 years. The number of this study was 78 samples, but in this study, there was outlier data with the results of the outlier data being 66 samples. The study was conducted on companies registered in one sector of manufacturing companies, namely companies in the mining sector so that it does not describe tax avoidance measures on all manufacturing companies. This study calculates tax avoidance using the Effective Tax Rate (ETR) proxy so there are many other proxies that have not been used in calculating tax avoidance. This research has limitations in conducting this research with relatively short time constraints.

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First, further research can use different objects, namely non-first-country companies or manufacturing companies in the food and beverage sub-sector. Second, researchers can then use other free variables that are considered capable of affecting tax avoidance, such as sales growth, CSR. Third, future research may use different proxy disclosure criteria such as CETR.

References

Anggara, K. T., and Pratomo, D. The Effect of Profitability, Sales Growth, and Firm Size on Tax Avoidance (Case Study Of Companies Registered in LQ45 During 2014-2018). *Journal of Accounting and Business*, vol. 8, no. 28, pp. 1110–1116. 2018.

Bratadilaga, R. S., Pratomo, D., and Kurnia, K. Effect of Company Age, Sales Growth and Audit Quality on Tax Avoidance (Empirical Study on Consumer Goods Companies Listed on the Indonesia Stock Exchange in the 2014-2018 Period). *EProceedings of Management*, vol. 7, no. 2. 2020.

Dewinta, I. R., and Setiawan, P. E. Pengaruh Ukuran Perusahaan, Umur Perusahaan, Profitabilitas, Leverage, Dan Pertumbuhan Penjualan Terhadap Tax Avoidance. *E-Jurnal Akuntansi Universitas Udayana*, vol. 14, no. 3, pp. 1584–1615. 2016.

Masrurroch, L. R., Nurlaela, S., and Fajri, R. N. Pengaruh profitabilitas , komisaris independen , leverage , ukuran perusahaan dan intensitas modal terhadap tax avoidance The effect of profitability , independent commissioners , leverage , firm size and capital intensity on tax avoidance. *I N O V a S I* -, vol. 17, no. 1, pp. 82–93. 2021.

Nugraha, M. I., and Mulyani, S. D. (2019). Peran Leverage Sebagai Pemediasi Pengaruh Karakter Eksekutif, Kompensasi Eksekutif, Capital Intensity, Dan Sales Growth Terhadap Tax Avoidance. *Jurnal Akuntansi Trisakti*, vol. *6*, no. 2, pp. 301. 2019.

Permatasari, N. I. Pengaruh Manajemen Laba, Umur Perusahaan dan Leverage Terhadap Tax Avoidance. *Akuisisi: Jurnal Akuntansi*, vol. 15, no. 2, pp. 18–25. 2020.

Pohan, C. *Manajemen Perpajakan : Strategi Perencanaan Pajak & Bisnis (Edisi Revisi)*. Jakarta. PT Gramedia Pustaka Utama. 2016.

Putri, V. R., and Putra, B. I. Pengaruh Leverage, Profitability, Ukuran Perusahaan Dan Proporsi Kepemilikan Institusional Terhadap Tax Avoidance. *Jurnal Manajemen Dayasaing*, vol. 19, no. 1, pp. 1. 2017.

Silvia, Y. S. Pengaruh manajemen laba, umur perusahaan, ukuran perusahaan, dan pertumbuhan penjualan terhadap tax avoidance. *Jurnal Equity*, vol. 3, no. 4, pp. 1–14. 2017.

Suciarti, C., Suryani, E., and Si, M. Pengaruh Leverage , Capital Intensity , Dan Deferred Tax Expense Terhadap Tax Avoidance. *Journal of Accounting Auditing and Business*, vol. 3, no. 2. 2020.

Sugiyono. *Menyusun Proposal Penelitian Kualitatif*. Bandung. Alfabeta. 2018.

Biography

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