Profitability, Leverage, Sales Growth, Tax Avoidance in Coal Production Sub-Industry Companies

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ABSTRACT
This study was conducted to analyze the influence of profitability, leverage, and sales growth on tax avoidance in coal production mining sub-industry companies listed on the Indonesia Stock Exchange in 2019 - 2023. The data in this study is secondary data derived from the annual reports of coal mining companies published on the Indonesia Stock Exchange in 2019, 2020, 2021, 2022, and 2023. Considering the relatively small number of populations, the sample determination uses saturated sampling, so the sample used in this study is 34 companies. Data analysis uses the panel data regression method. The results of the study show that the average value of the company's profitability is 0.024111, then the average value of the company's leverage is 0.0461943, for the average value of the company's sales growth is 0.2115858, and as many as 98 financial statements are indicated to be tax avoidance (CETR < 25%). Furthermore, profitability affects tax avoidance. Leverage has no effect on tax avoidance, and sales growth has no effect on tax avoidance. Simultaneously, profitability, leverage, and sales growth have an effect on tax avoidance with an R-Square value of 0.0837 (8.37%). The remaining 91.63% was influenced by other variables that were not studied in this study, such as: company size, corporate social responsibility, capital intensity, audit quality, etc.

ABSTRAK
      Penelitian ini dilakukan untuk menganalisis pengaruh *profitabilitas*, *leverage*, dan pertumbuhan penjualan terhadap penghindaran pajak pada perusahaan sub industri pertambangan coal production yang terdaftar di Bursa Efek Indonesia tahun 2019 - 2023. Data dalam penelitian ini adalah data sekunder yang berasal dari laporan tahunan perusahaan pertambangan batu bara yang dipublikasikan di Bursa Efek Indonesia tahun 2019, 2020, 2021, 2022, dan tahun 2023. Mengingat jumlah populasi yang relatif kecil, maka penentuan sampel menggunakan *sampling* jenuh, sehingga sampel yang digunakan pada penelitian ini berjumlah 34 perusahaan. Analisis data menggunakan metode regresi data panel. Hasil penelitian menunjukkan bahwa rata-rata nilai *profitabilitas* perusahaan adalah sebesar 0,024111, kemudian rata-rata nilai *leverage* perusahaan yaitu sebesar 0,0461943, untuk rata-rata nilai pertumbuhan penjualan perusahaan sebesar 0,2115858, dan sebanyak 98 laporan keuangan terindikasi melakukan penghindaran pajak (CETR < 25%). Selanjutnya *profitabilitas* berpengaruh terhadap penghindaran pajak. *Leverage* tidak berpengaruh terhadap penghindaran pajak, dan pertumbuhan penjualan berpengaruh terhadap penghindaran pajak. Secara simultan *profitabilitas*, *leverage*, dan pertumbuhan penjualan berpengaruh terhadap penghindaran pajak dengan nilai *R-Square* 0,0837 (8,37%). Adapun sisanya sebesar 91,63% dipengaruhi oleh variabel lain yang tidak diteliti dalam penelitian ini, seperti: ukuran perusahaan, *corporate social responsibility*, *capital intensity*, *audit quality,* dll.

1. Introduction

      Taxes in the mining sector are one of the significant sources of state revenue, after the trade and processing industry sectors. This increase in tax revenue is very important to support economic growth and national development. Taxpayers' compliance in fulfilling their tax obligations voluntarily is expected to increase, in accordance with applicable regulations. In 2022, the mining sector's Gross Domestic Product growth reached 4.38%, up from 4.00% in the previous year. Tax regulations in the mining sector are regulated in Government Regulation Number 37 of 2018, which requires taxpayers to comply with the provisions for withholding and collecting income tax. The tax rate for public companies is set at 20%, with a minimum of 40% of shares traded on the Indonesia Stock Exchange. However, tax revenues that do not reach the target can have a negative impact on state revenue. Data from the Central Statistics Center shows a decrease in the tax contribution of the mining sector from 78.14% in 2018 to 76.96% in 2021, which

needs to be the government's concern. Meanwhile, the export value of mining commodities showed a significant upward trend from 2020 to 2022. For example, PT. Bayan Resources recorded a drastic increase in net profit in 2022, in line with the increase in coal prices due to increased demand. Even though these companies experience an increase in profits, they still have an obligation to pay taxes based on the net profits earned. This creates tension between the government's goal of maximizing tax revenues and companies' efforts to reduce the tax burden in order to increase profits. Companies often look for ways to minimize tax liabilities, both through ways that comply with the law and those that violate regulations. One of the causes of the decline in tax revenue in Indonesia is tax avoidance, which is a legal practice to minimize the tax burden by taking advantage of loopholes in tax regulations. While not against the law, tax avoidance can have a negative impact on taxpayers, especially in the long run, as it can lower the value of a company and increase legal risks when seeking external funding. The "The State of Tax Justice 2020" report shows that Indonesia suffered tax losses of Rp 68.7 trillion, with most of the losses coming from tax avoidance by corporate taxpayers. Indonesia ranks fourth in Asia in terms of tax avoidance, after China, India, and Japan.

The phenomenon of tax avoidance continues to be the focus of research, with many companies, both multinational and domestic, indicated to carry out this practice through various means, including debt engineering and the use of inappropriate tax rates. The Base Erosion and Profit Shifting (BEPS) scheme is often used to shift profits to countries with lower tax rates, including through transfer pricing. A real example is PT. Adaro Energy Tbk, which is involved in this practice in the mining sector. In 2019, PT. Adaro was allegedly involved in the diversion of profits through a subsidiary of Coaltrade Service International, with transactions that took place from 2009 to 2017, resulting in state losses of around USD 14 million per year. This is not the first case for PT. Adaro, because in 2008, this company was also indicated to carry out tax evasion through transfer pricing with affiliated companies in Singapore. Further research shows that several mining companies listed on the Indonesia Stock Exchange in 2023 showed a discrepancy between tax payments and pre-tax profits, indicating tax avoidance. The use of the Cash Effective Tax Rate (CETR) ratio is important in measuring tax avoidance, where a smaller CETR value indicates a greater level of tax avoidance. Dyreng et al. (2010) stated that Cash ETR is not affected by changes in estimates, so it can provide a more accurate picture of tax avoidance compared to the GAAP ETR model.

According to Tanzil and Arrozi (2022), tax avoidance is a strategy that is carried out in a legal and legal way, because it does not violate existing regulations. This strategy aims to reduce the amount of tax paid without affecting the return or shortfall in tax payments. Then Hanlon & Heitzman (2010) asserted that Cash ETR is often used as a proxy in tax avoidance research. Budiman and Setiyono (2012) added that companies are categorized as tax evasion if their CETR is less than 25%, with companies that commit tax evasion given a score of 1 and those that are not given a score of 0. Tax avoidance can be affected by the profitability level of a company. According to Bambang Riyanto (2012:35), Profitability refers to the ability of a company to generate profits in a certain period of time, which is measured by comparing the profits obtained with the assets or capital used to generate the profits. When a company's profitability ratio is at a high level, it reflects that the profits earned are also significant, which in turn will lead to an increase in the tax burden to be beared. This condition has the potential to encourage companies to engage in tax avoidance practices. This is in line with the statement of Hariani & Waluyo (2019:417) which states that the greater the profit obtained, the higher the company's profitability, which has implications for the amount of tax that must be paid. Therefore, companies with high profitability tend to face greater risks related to tax avoidance, so the value of CETR may decrease. Hidayat (2018) also emphasized that increasing profitability will lead to increased profits, which allows companies to fulfill their tax obligations without having to commit tax evasion or with a low tax evasion rate.

Tax avoidance can also be affected by the leverage ratio, where the debt held by the company will generate an interest expense. According to Kasmir (2016:151), Leverage refers to a company's ability to pay off all debts, both short-term and long-term, if the company is dissolved or liquidated. Leverage has the potential to reduce the profits a company makes, which in turn has an impact on reducing the amount of tax payable. Therefore, to reduce significant tax liabilities, companies tend to lower their profitability by adding to the favorable burden. This statement is in line with the opinion of Amelia & Febyansyah (2023:2595) who stated that higher levels of debt can lead to larger tax allocations. Tax avoidance shows that debt is not the only way for companies to avoid tax liabilities. The larger the company's debt, the higher the interest obligation that must be paid, so that

the profit before tax will decrease. Companies with high levels of leverage tend to avoid taxes because of tax incentives from interest expenses that can reduce tax liabilities.

Sales growth is expected to contribute to tax avoidance, apart from profitability and leverage. According to Kasmir (2018:107), sales growth can be interpreted as the rate of change in sales from year to year in a company, which is done by comparing the sales value in this period with the sales value in the previous period. This contribution is due to the fact that sales growth reflects an increase in the volume of profits generated from sales. When sales growth increases, it is likely that the company's operational capacity will also increase, because the increase will lead to an increase in profits. Logically, if sales growth increases, then the company will achieve greater profits, which in turn encourages companies to practice tax avoidance, considering that high profits will result in a significant tax burden. According to Fauzan et al. (2019:174), companies can estimate potential profits based on their sales growth rate. Thus, increased sales growth tends to encourage companies to achieve greater profits, which makes tax avoidance practices more feasible.

Research on tax avoidance has been conducted and published in various reputable indexed journals, both at the national and international levels. One of the relevant studies is the work of Mochamad Kohar Mudzakar and Obsatar Sinaga (2019), which was published in the Scopus Q2 indexed journal, namely the International Journal of Innovation, Creativity and Change Volume 6 Issue 7. This study shows that profitability and leverage simultaneously have an influence on tax avoidance. In addition, Yati Mulyati, Hesty Juni Tambuati Subing, Andina Nur Fathonah, and Alfita Prameela (2019) also found that leverage and company size have an effect on tax avoidance. Furthermore, research by Trisninik Ratih Wulandari and Leo Joko Purnomo (2021), published in the indexed journal Sinta 2, Accounting and Business Volume 21 No.1, revealed that company size, company age, and sales growth have a positive influence on tax avoidance. This finding is also supported by research by Ainniyya, Sumiati, & Susanti (2021), which states that sales growth has an effect on tax avoidance. Increased sales growth tends to lead to a decrease in ETR, which indicates that the rate of corporate tax avoidance is increasing.

2. Methods

The object of this research focuses on coal production mining sub-industry companies listed on the Indonesia Stock Exchange (IDX) during the period 2019 to 2023, with a total of 34 companies. The research methodology applied is a quantitative method with a verifiable descriptive approach. The data used is secondary quantitative data, taken from existing sources. The population in this study consists of all coal mining sub-industry companies listed on the IDX, with samples taken using the saturated sampling method, considering the relatively small population.

The design of analysis and hypothesis testing in this study consists of descriptive analysis and verifiable analysis. This study utilizes STATA software for panel data processing, which is effective in handling time series and cross section data. Classical assumption tests are an important step in regression analysis and must meet the requirements of normality and be free from heteroscedasticity, autocorrelation, and multicollinearity. Panel data regression analysis via: Common Effect Model, Fixed Effect Model, and Random Effect Model. Selecting the right model for the regression of the panel data involves several tests, including: The Chow test is used to determine whether a Fixed Effect or Common Effect is more appropriate, with the hypothesis that the correct model is Fixed Effect if the calculated F value is greater than the critical F. The Hausman test helps to choose between Fixed Effect and Random Effect, where the Fixed Effect model is selected if the Hausman statistical value is greater than the critical value of Chi-Squares. The Lagrange Multiplier test assesses whether the Random Effect is better than the Common Effect, with the Random Effect model selected if the calculated LM value is greater than the critical value of Chi-Squares.

3. Findings and Discussion

The results of the descriptive statistical test show the variables analyzed, namely Return on Assets (ROA), Leverage, Sales Growth, and Tax Avoidance. The results are as follows:

```
. summarize CETR ROA DER SALESGROWTH

    Variable |       Obs        Mean    Std. dev.         Min         Max
-------------+--------------------------------------------------------------
        CETR |       170    .5764706    .4955774           0           1
         ROA |       170     .024111    .4018314    -4.45476      .74651
         DER |       170    .0461943    1.492445   -11.00961     7.45909
 SALESGROWTH |       170    .2115858    .4927366       -1.61     1.75116
```

Based on the analysis of the data presented, this study involved 170 observations. The CETR variable, which measures tax avoidance, shows a maximum value of 1 and a minimum of 0, with an average of 0.5764706. For the ROA variable that reflects profitability, the maximum value was recorded at

225

0.74651 and the minimum was -4.45476, with an average of 0.024111. Furthermore, the DER variable that indicates leverage has a maximum value of 7.45909 and a minimum of -11.00961, with an average of 0.0461943. Finally, the SALESGROWTH variable that measures sales growth shows a maximum value of 1.75116 and a minimum of -1.61, with an average of 0.2115858. These findings provide a clear overview of the variation and tendency of each variable in the study.

Based on the results of the Shapiro-Wilk W test, information was obtained regarding the distribution of the tested data. The results of this test will influence the selection of the right analysis technique for the data being studied.

```
. swilk CETR ROA DER SALESGROWTH

             Shapiro-Wilk W test for normal data

    Variable |    Obs        W        V        z

        CETR |    170  0.99893    0.139   -4.509
         ROA |    170  0.43835   72.778    9.783
         DER |    170  0.42091   75.039    9.853
 SALESGROWTH |    170  0.95349    6.027    4.099

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The data from above, shows that the W value for the ROA (profitability) variable is 0.99893, for the DER variable (leverage) is 0.43835, for the SALESGROWTH variable (sales growth) is 0.95349, and for the CETR variable (tax avoidance) is also 0.99893. All obtained W values are greater than 0.05, which indicates that the data is normally distributed. Thus, the data is eligible for panel data regression tests.

The results of the Variance Inflation Factors (VIF) test conducted using Stata 17.0 software, are presented as follows:

```
. estat vif

    Variable |    VIF     1/VIF

         ROA |   1.02   0.982348
 SALESGROWTH |   1.02   0.982621
         DER |   1.00   0.998946

    Mean VIF |   1.01

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The results of data processing show that the Variance Inflation Factor (VIF) value for the Return on Assets (ROA) variable is 1.02, for the Debt-to-Equity Ratio (DER) is 1.00, and for Sales Growth is 1.02. All of these VIF values are below 10, and the 1/VIF value is greater than 0.10, respectively, which is 0.982348 for ROA, 0.998946 for DER, and 0.982621 for Sales Growth. Based on the criteria of

the multicollinearity test, where the tolerance value (1/VIF) must be greater than 0.10 and the VIF value must be less than 10 to indicate the absence of symptoms of multicollinearity, it can be concluded that there are no symptoms of multicollinearity in this data. Thus, the data is considered feasible to conduct a panel data regression test.

The results of the heteroscedacity test using the Breusch-Pagan test showed a Prob value > chi2 of 0.4535. This value indicates that there is no heteroscenity in the data tested, so the data is eligible for a panel data regression test. The output of the test results can be seen as follows:

```
. estat hettest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of CETR

H0: Constant variance

    chi2(1) =    0.56
Prob > chi2 = 0.4535

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The autocorrelation test in this study was carried out using the Durbin Watson (DW) test. The results of the test can be seen in the following Stata 17.0 output:

```
. estat dwatson

Durbin-Watson d-statistic(  4,   170) = 1.501886

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Based on the test results, the Durbin Watson score obtained was 1.501886. This value is in the range of -2 to +2, which corresponds to the criteria set earlier. The criterion states that if the DW value is between -2 and +2, then there is an indication of autocorrelation. However, since the values obtained are within that range, it can be concluded that there is no indication of autocorrelation. Thus, the data was declared to have passed the autocorrelation test and was eligible for a panel data regression test.

The Chow test aims to determine the most suitable model in panel data regression analysis, between the Fixed Effect (FEM) model and the Common Effect (CEM) model. The results of the Chow test show relevant data and analysis for decision-making regarding the selection of the right model. The results of the Chow test are as follows:

. regress CETR ROA DER SALESGROWTH i.PERUSAHAAN

Source	SS	df	MS		
Model	18.4753638	36	.513204549	Number of obs = 170	
Residual	23.0305186	133	.173161794	F(36, 133) = 2.96	
				Prob > F = 0.0000	
				R-squared = 0.4451	
Total	41.5058824	169	.245596937	Adj R-squared = 0.2949	
				Root MSE = .41613	

CETR	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]
ROA	-.2568315	.0913029	-2.81	0.006	-.4374251 -.076238
DER	-.012589	.0227615	-0.55	0.581	-.0576103 .0324324
SALESGROWTH	-.1243826	.074409	-1.67	0.097	-.2715606 .0227955
PERUSAHAAN					
2	.5169834	.2814896	1.84	0.069	-.0397921 1.073759
3	.4082035	.2656304	1.54	0.127	-.1172031 .9336102
4	.7083727	.264773	2.68	0.008	.1846619 1.232083
5	.3989838	.2633301	1.52	0.132	-.1218729 .9198405
6	.3382379	.2638423	1.28	0.202	-.183632 .8601078
7	.4020216	.2631926	1.53	0.129	-.1185631 .9226063
8	.3877601	.2638381	1.47	0.144	-.1341015 .9096216
9	-.0315983	.2634268	-0.12	0.905	-.5526463 .4894497
10	.9751537	.265555	3.67	0.000	.4498962 1.500411
11	.2111296	.2638972	0.80	0.425	-.3108489 .7331081
12	.1670138	.2634689	0.63	0.527	-.3541176 .6881451
13	.5007612	.2657256	1.88	0.062	-.0248338 1.026356
14	.2178378	.2637238	0.83	0.410	-.3037977 .7394733
15	.3226316	.264915	1.22	0.225	-.20136 .8466232
16	.3459139	.263873	1.31	0.192	-.1760168 .8678445
17	.8271676	.2637113	3.14	0.002	.3055569 1.348778
18	.1559727	.2635075	0.59	0.555	-.3652349 .6771802
19	.4747213	.2678185	1.77	0.079	-.0550132 1.004456
20	.8986014	.266576	3.37	0.001	.3713244 1.425878
21	.9402923	.2640576	3.56	0.001	.4179967 1.462588
22	.6635805	.2697466	2.46	0.015	.1300322 1.197129
23	.1027276	.2650104	0.39	0.699	-.4214527 .6269079
24	.3147103	.2645009	1.19	0.236	-.2084622 .8378828
25	.2925411	.2650973	1.10	0.272	-.2318112 .8168934
26	.7251137	.2642991	2.74	0.007	.2023404 1.247887
27	.965473	.2636339	3.66	0.000	.4440154 1.486931
28	.7243603	.2641157	2.74	0.007	.2019496 1.246771
29	.9243363	.2642296	3.50	0.001	.4017005 1.446972
30	.8217891	.2644192	3.11	0.002	.2987783 1.3448
31	.9212012	.2645774	3.48	0.001	.3978772 1.444525
32	.6055942	.2631923	2.30	0.023	.0850102 1.126178
33	.9478916	.2637411	3.59	0.000	.426222 1.469561
34	.5911645	.2632032	2.25	0.026	.0705588 1.11177
_cons	.0870138	.1879478	0.46	0.644	-.2847396 .4587672

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. testparm i.PERUSAHAAN

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 ( 1)  2.PERUSAHAAN = 0
 ( 2)  3.PERUSAHAAN = 0
 ( 3)  4.PERUSAHAAN = 0
 ( 4)  5.PERUSAHAAN = 0
 ( 5)  6.PERUSAHAAN = 0
 ( 6)  7.PERUSAHAAN = 0
 ( 7)  8.PERUSAHAAN = 0
 ( 8)  9.PERUSAHAAN = 0
 ( 9) 10.PERUSAHAAN = 0
 (10) 11.PERUSAHAAN = 0
 (11) 12.PERUSAHAAN = 0
 (12) 13.PERUSAHAAN = 0
 (13) 14.PERUSAHAAN = 0
 (14) 15.PERUSAHAAN = 0
 (15) 16.PERUSAHAAN = 0
 (16) 17.PERUSAHAAN = 0
 (17) 18.PERUSAHAAN = 0
 (18) 19.PERUSAHAAN = 0
 (19) 20.PERUSAHAAN = 0
 (20) 21.PERUSAHAAN = 0
 (21) 22.PERUSAHAAN = 0
 (22) 23.PERUSAHAAN = 0
 (23) 24.PERUSAHAAN = 0
 (24) 25.PERUSAHAAN = 0
 (25) 26.PERUSAHAAN = 0
 (26) 27.PERUSAHAAN = 0
 (27) 28.PERUSAHAAN = 0
 (28) 29.PERUSAHAAN = 0
 (29) 30.PERUSAHAAN = 0
 (30) 31.PERUSAHAAN = 0
 (31) 32.PERUSAHAAN = 0
 (32) 33.PERUSAHAAN = 0
 (33) 34.PERUSAHAAN = 0

       F( 33,  133) =    2.62
            Prob > F =    0.0001
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The criteria set states that if the Probability value (Prob.) is greater than 0.05, then the model chosen is the Common Effect Model (CEM). On the other hand, if the value of Prob. less than 0.05, the selected model is a Fixed Effect Model (FEM). Based on the results of the Chow test that was displayed, the value of Prob. obtained is 0.0001. Since this value is less than 0.05, the model chosen for analysis is the Fixed Effect Model.

The Hausman test aims to determine the most suitable model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The criteria used in this test is the Prob value. chi2. If the value is greater than 0.05, then the selected model is REM. On the other hand, if the value of Prob. chi2 is less than 0.05, then FEM will be chosen. The results of this test are shown in the following table:

```
. hausman FEM REM

            ——— Coefficients ———
              (b)          (B)          (b-B)        sqrt(diag(V_b-V_B))
              FEM          REM          Difference    Std. err.
        ROA   -.2568315    -.2553669    -.0014647     .0293824
        DER   -.012589     -.0109878    -.0016012     .0052172
 SALESGROWTH   -.1243826    -.1475645    .0231819      .0239295

                    b = Consistent under H0 and Ha; obtained from xtreg.
       B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

   chi2(3) = (b-B)'[(V_b-V_B)^(-1)](b-B)
           =   1.28
Prob > chi2 = 0.7331

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Based on the results of the Hausman test shown in the table above, the Prob value was obtained. chi2 of 0.7331. This value is greater than 0.05, which indicates that the most suitable model to use is the Random Effect Model.

The Lagrange Multiplier test aims to determine between the Common Effect Model (CEM) and the Random Effect Model (REM) which is more suitable. However, in this study, the test was not carried out. The results of the Chow test show that the Fixed Effect Model (FEM) is selected with the Prob value. 0.0001, which means significant. In contrast, the Hausman test shows that the Random Effect Model (REM) is selected with the Prob value. chi2 0.7331, which is insignificant. Based on the results of the test, the most appropriate panel data regression model is the Random Effect Model (REM). The test results can be seen in the following table:

```
. xtreg CETR ROA DER SALESGROWTH, re sa

Random-effects GLS regression          Number of obs     =      170
Group variable: PERUSAHAAN             Number of groups  =       34

R-squared:                             Obs per group:
     Within  = 0.0856                        min =        5
     Between = 0.0896                        avg =      5.0
     Overall = 0.0837                        max =        5

                                       Wald chi2(3)      =    15.30
corr(u_i, X) = 0 (assumed)             Prob > chi2       =   0.0016

       CETR │ Coefficient  Std. err.      z    P>|z|    [95% conf. interval]
        ROA │ -.2553669    .0864458     -2.95   0.003   -.4247976   -.0859361
        DER │ -.0109878    .0221555     -0.50   0.620   -.0544118    .0324362
SALESGROWTH │ -.1475645    .0704562     -2.09   0.036   -.2856561   -.0094729
      _cons │  .6143579    .0548381     11.20   0.000    .5068772    .7218386

    sigma_u │  .24698876
    sigma_e │  .41612714
        rho │  .26051453   (fraction of variance due to u_i)

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Based on the table above, which is the *output* of the Random *Effect Model test results*, it can then be interpreted that:

1. The results of the F test showed that the value *of Wald Chi2* was 15.30 with a Prob value. (*significance*) of 0.0016 (< 0.05). Therefore, it can be concluded that ROA, DER, SALESGROWTH (independent variables) have *a significant* effect simultaneously (simultaneously) on CETR (dependent variable).
2. The results of the determination coefficient test showed that *the R-Square value* was 0.0837. Therefore, it is concluded that the contribution of the influence of independent variables on the dependent variables simultaneously (simultaneously) is 8.37%.
3. The results of the T test of the ROA variable (X1) had a *t-Statistic* value of -2.95 with *a Prob* value. (*significance*) of 0.003 (< 0.05). Therefore, it can be concluded that the ROA variable has *a significant* effect on the CETR (Y) variable.
4. The results of the T test of the DER variable (X2) have a *t-Statistic* value of -0.50 with a Prob value. (*significance*) of 0.620 (> 0.05). Therefore, it can be concluded that the DER variable (X2) does not have *a significant* effect on the CETR variable (Y).
5. The results of the T-test of the SALESGROWTH variable (X3) are known to have a *t-Statistic* value of -2.09 with a *Prob value.* (*significance*) of 0.036 (< 0.05). So, the conclusion is that the variable SALESGROWTH (X3) has *a significant* effect on the variable CETR (Y).

The regression equation of the *Random Effect Model* in this study is as follows:

$$Y = 0{,}614 + (-0{,}255)*X_1 + (-0{,}010)*X_2 + (-0{,}147)*X_3$$

The regression equation from the *Random Effect Model* above can then be interpreted as:

- The value of the constant obtained is 0.614, the value can be interpreted that if the independent variable is equal to zero (0) or constant, then the dependent variable is 0.614.
- The value of the regression coefficient of variable X1 has a negative value (-) of -0.255, the value can be interpreted that if variable X1 increases, variable Y will decrease by -0.255, and vice versa.
- The value of the regression coefficient of variable X2 has a negative value (-) of -0.010, the value can be interpreted that if variable X2 increases, variable Y will decrease by -0.010, and vice versa.
- The regression coefficient value of variable X3 has a negative value (-) of -0.147, the value can be interpreted that if variable X3 increases, variable Y will decrease by -0.124, and vice versa.

a. **Profitability, Leverage, Sales Growth, and Tax Avoidance in Coal Production Mining Sub-Industry Companies**

Profitability is a financial ratio that shows the company's ability to generate profits from sales, assets, and share capital. In the coal production mining sub-industry listed on the Indonesia Stock Exchange, profitability has fluctuated significantly between 2019 and 2023. The highest achievement of Return on Assets (ROA) occurred in 2022, with a value of 0.74651 achieved by PT. Bayan Resources Tbk., which recorded a net profit of US$2.17 billion. This increase was triggered by rising coal commodity prices due to high demand for power plants, especially during the winter in Europe. On the contrary, the lowest profitability achievement occurred in 2023 with a value of -4.45476, owned by PT. This decline was caused by coal prices falling to a low of US$117 in December 2023, after previously peaking at US$330 per ton in October 2022. In addition, PT. Bukit Asam Tbk. also experienced a decrease in net profit from 12.56 trillion to 6.10 trillion in 2023. The average profitability for companies in this sector during the 2019-2023 period was 0.024111, with 61.17% of the 170 published financial reports showing an ROA value above that average.

Based on research, the highest leverage value in 2023 was achieved by PT. Dwi Guna Laksana Tbk. with a value of 7.45909, which shows the company's efforts in increasing its value. However, high leverage can increase fixed liabilities and debt default risks, as well as negatively impact the value of companies in the coal sector. On the contrary, the lowest achievement occurred in 2019 with a value of -11.00961. The average leverage over the period 2019-2023 is 0.0461943. According to industry standards, a good leverage ratio should be below 1, with a ratio below 0.5 considered ideal, indicating that no more than 50% of a company's assets are financed by debt. This ratio is important to give investors an idea of the company's dependence on debt. From the analysis of 170 published financial statements, around 34.70% or 59 reports have a leverage value below average. Some of the companies included in this category include PT. Borneo Olah Sarana Sukses Tbk., PT. Bumi Resources Tbk., and PT. Bukit Asam Tbk.

Based on the analysis carried out, the highest sales growth in the coal production mining sub-industry occurred in 2022, with PT. Dian Swastatika Sentosa Tbk. recorded a value of 1.75116. This suggests that companies with stable sales are better able to obtain loans and bear fixed liabilities, according to Brigham and Houston. The year-over-year improvement in sales capabilities reflects the company's success in sales and marketing strategies. On the other hand, the lowest sales were recorded in 2019 with a value of -1.61 by PT. Trada Alam Mineral Tbk., which is

caused by constraints in production and distribution as well as changes in global trade flows. The average growth of coal sales during the 2019-2023 period was 0.2115858, with 70 financial reports (41.17%) showing above-average growth. However, the report does not include PT. Trada Alam Mineral Tbk. and PT. Transcoal Pacific Tbk.

An analysis of 170 financial statements of companies in the coal production mining sub-industry shows that 57.64% of these reports are indicated to have committed tax evasion during the period 2019 to 2023, with a CETR value below 25%. This tax avoidance is legal under Law Number 38 of 2007, which allows companies to choose the right business structure and take advantage of tax facilities, such as investments in special economic zones. Tax avoidance, which is a tax planning strategy to maximize profits, is carried out by various companies, both multinational and domestic. The methods used include debt engineering, the application of inappropriate income tax rates, and the provision of unreasonable facilities. Many companies also implement Base Erosion and Profit Shifting (BEPS) schemes to reduce tax liabilities. However, there are concerns related to unethical tax evasion, such as transfer pricing, asset transfer, thin capitalization, and controlled foreign corporations. This action can be detrimental to the government and society, in line with Brown's (2012) view that although tax evasion can be done legally, this practice is often unethical and detrimental to many parties.

b. Profitability of Tax Avoidance in Mining Sub-Industry Companies Coal Production

Based on the results of the panel data regression test through *the Random Effect Model,* it is known that the amount of the influence *of profitability* on tax avoidance in coal production mining sub-industry companies listed on the Indonesia Stock Exchange in 2019 - 2023 is -0.255 with *a significance* below 0.05 (0.003). This value means that if the *company's* profitability increases, then the company's indication to carry out tax avoidance decreases by -0.255. This is in line with what was expressed by Hidayat (2018) who stated that if profitability increases, then the company's profit will increase so that the company is able to pay its tax burden without carrying out tax avoidance practices or low tax avoidance practices. The results of this study are strengthened by the results of research conducted by Ali Hardana & Abdul Nasser Hasibuan (2023); then Christili Tanjaya, & Nazmel Nazir (2021); and Astrid Yulianty, Maradela Ermania Khrisnatika, and Amrie Firmansyah (2021) which from the results of the

research show that *profitability* has an effect and *is significant* on *tax avoidance*. Likewise, the results of research from ella Selvyany Sembiring & Lailatus Sa'adah (2021) stated that *profitability has* a significant *negative effect* on *tax avoidance* in manufacturing companies in the consumer goods industry sector listed on the IDX. Furthermore, the results of Marsono & Sari's (2020) research stated that *profitability* has a negative effect on *tax avoidance*. Companies that are able to generate large profits will be more able to make tax payments, even easily manage profits. Based on the results of the study, it can be found that the higher the level *of profitability*, the lower the level of tax avoidance. Companies that earn large profits will be more able to do tax planning so that they will also be able to pay taxes.

c. Leverage Against Tax Avoidance in Coal Production Mining Sub-Industry Companies

Based on the results of the panel data regression test through *the Random Effect Model*, it is known that *the R-Square leverage* value through the DER calculation ratio does not *have a significant* effect on tax avoidance in coal production mining sub-industry companies listed on the Indonesia Stock Exchange in 2019 - 2023. This is because the resulting significance value exceeds 0.05 (0.620). The same research results also occurred in the research of Tri Wahyuni & Djoko Wahyudi (2021), where the results of the study showed that *leverage* had a negative effect on *Tax Avoidance*. Likewise, the results of research from Rifai & Atiningsih (2019) stated that *leverage* has no effect on *tax avoidance*. There are several perceptions that arise regarding the ineffect of *leverage* on tax avoidance, including: a high *leverage* ratio will not affect the Company's tax payment activities, then management will rethink the use of debt ratio as a way to avoid taxes.

d. Sales Growth Against Tax Avoidance in Coal Production Mining Sub-Industry Companies

Based on the results of the panel data regression test through *the Random Effect Model,* it is known that the magnitude of the effect of sales growth on tax avoidance in coal production mining sub-industry companies listed on the Indonesia Stock Exchange in 2019 - 2023 is -0.147 with a *significance* below 0.05 (0.036). This value means that if the company's sales growth increases, then the company's indication to carry out tax avoidance decreases by -0.147. The results of this study are in line with the results of research from Trisninik Ratih Wulandari, and Leo Joko Purnomo (2021) who stated that company size,

company age, and sales growth have an effect on tax avoidance. Then the results of research from Ainniyya, Sumiati, & Susanti (2021) which stated that *sales growth* affects *tax avoidance*.

e. Profitability, Leverage, and Sales Growth on Tax Avoidance in Coal Production Mining Sub-Industry Companies

Based on the results of the panel data regression test through *the Random Effect Model*, it is known that the results of the F test show a *significance* value below 0.05 (0.0016) which means that ROA, DER, SALESGROWTH have a *significant* effect simultaneously (simultaneously) on CETR. This result is confirmed by the *R-Square* value, which is 0.0837. This can be interpreted as the contribution of the influence of the ROA, DER, SALESGROWTH variables on the CETR variable simultaneously (simultaneously) which is 0.0837 or if the percentage is 8.37%. While the remaining 91.63% was influenced by other variables that were not studied in this study, such as: company size, *corporate social responsibility*, *capital intensity*, *audit quality*, and others. The results of this study are in line with the results of research from Heru Harmadi Sudibyo (2022), which states that the variables of profitability, leverage, and sales growth have a combined effect on the variables of tax avoidance in mining companies listed on the Indonesia Stock Exchange for the period 2015 to 2019 with a significance level of 0.003 less than 0.05. Likewise, the results of research from Mochamad Kohar Mudzakar and Obsatar Sinaga (2019) published in a reputable journal indexed by Scopus Q2 in the *International Journal of Innovation, Creativity and Change* Vol. 6 *Issue* 7, which states that simultaneously (simultaneously) *profitability* and *leverage* have an effect on tax avoidance.

4. Conclusion

In 2022, PT. Bayan Resources Tbk. recorded the highest profitability value (ROA), while PT. Akbar Indo Makmur Stimec Tbk. had the lowest score in 2023 with an average of 0.024111. The highest leverage was recorded at PT. Dwi Guna Laksana Tbk. in 2023, while the lowest value occurred in 2019 with an average of 0.0461943. The highest sales growth also occurred in 2022 at PT. Dian Swastatika Sentosa Tbk., while the lowest in 2019 was at PT. Trada Alam Mineral Tbk. with an average of 0.2115858. Of the 170 financial statements analyzed between 2019 and 2023, 98 reports showed indications of tax avoidance with a CETR value below 25%. The analysis shows that the profitability variable has a significant

influence on tax avoidance with a significance value of 0.003, while the leverage variable does not show a significant influence with a significance value of 0.620. On the other hand, sales growth had a significant effect on tax avoidance with a significance of 0.036. Simultaneously, profitability, leverage, and sales growth had a significant effect on tax avoidance with a significance of 0.0016 and an R-Square value of 0.0837, meaning that 8.37% of tax avoidance could be explained by these three variables, while 91.63% was influenced by other factors not examined in this study, such as company size and corporate social responsibility.

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