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### THE EFFECT OF PROFITABILITY, LEVERAGE, INSTITUTIONAL OWNERSHIP AND FIRM SIZE ON TAX AVOIDANCE: EMPIRICAL STUDY ON MANUFACTURING COMPANIES LISTED ON IDX FOR THE 2017-2019 PERIOD

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### Abstrak

The receipt of public contributions, which will subsequently enter the state treasury, is the main supply of governmental earnings. For the state, taxes are a source of income, while for companies, taxes are a burden that reduces the company's net profit. Reducing net income makes many companies use several ways to minimize their taxes, one of which is by doing tax evasion. The method is legal, meaning it does not contradict any tax laws. The goal of this study is to explore and assess the impact of tax evasion on financial capability, leverage, institutional ownership, and firm size. The purposive sampling method was used to select a sample of 237 industrial businesses listed on the Indonesia Stock Exchange (ISE) between 2017 and 2019. Multiple linear regressions were applied to analyze the data. The findings of this study display that institutional ownership has a considerable influence on tax evasion, whereas profitability, leverage, and firm size have no substantial influence on tax evasion.

**Kata Kunci:** profitability, leverage, institutional ownership, firm size, tax avoidance, manufacturing companies

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### INTRODUCTION

Tax is the largest source of state income obtained from the receipt of public contributions which will later enter the state treasury. The tax is coercive because it is regulated in the KUP Law, Article 1 of Law no. 28 of 2007. without direct remuneration, and is applied to meet the demands of the state for the general welfare. The collection of these contributions is used to finance expenditures for government the achievement of public welfare. In this collection arrangement, the Directorate General of Taxes, which is under the auspices of a government institution, the Ministry of Finance of the Republic of Indonesia is appointed bv the government.

Tax collection is not easy to implement. For the state, taxes are a source of income. But it's different with the company. Taxes are a burden for companies since they affect their net income. The reduction in net income makes many companies use various ways to minimize the taxes obtained, namely by tax planning. Tax planning is the first step in lowering a company's tax obligations. In tax planning there is a commonly used definition, namely tax evasion as well as tax evasion (Suandy, 2006). Tax planning that is allowed legally is tax evasion. This study uses tax evasion rather than tax sheltering or tax aggressiveness because it intends to convey that companies that are not currently conducting unethical activities (Dyreng, Michelle, & Edward Maydew, 2008).

Tax evasion is a method of avoiding paying taxes in order to reduce a company's tax burden. Tax evasion, according to Ayuningtyas and Sujana (2018), is a legitimate means of avoiding taxes that does not violate tax regulations. In the State Revenue and Expenditure Budget (State Budget/APBN), tax evasion will lower the state treasury or have an impact on state revenue. Tax revenue in Indonesia has been planned in such a way as to achieve the desired target in accordance with the Revenue Budget in the APBN.

Tax evasion can occur in several cases within the company. As has happened in the recent phenomenon, namely the alleged tax evasion by PT Adaro Energy Tbk in 2019. The particularly mentioned company, in avoiding tax obligations, the company carries out a transfer pricing scheme subsidiary located through а in Singapore. According to a report issued by Global Witness, PT Adaro Energy Tbk was avoiding paying taxes to the government by transferring its income and profits to other countries. This approach, according to Global Witness, involves supplying coals at low prices to Adaro's Singapore affiliate, Coaltrade Services International, for reselling at high prices. Global Witness identified the possibility of lower-than-expected tax payments to the Indonesian government of US\$125 million through the company. Furthermore. Global Witness emphasized the impact of tax havens in allowing Adaro to minimize their annual tax bill of US\$14 million (www.tirto.id).

Tax evasion is influenced by a first number of factors. The consideration is financial capability. Arianandini and Ramantha (2018) stated that, financial capability is a metric for evaluating a firm's performance that determines or measures the extent to which the organization effectively uses its assets in obtaining profits efficiently. Measurement of profitability uses RoA (Return on Assets), which is described as earnings after taxes divided by total assets, so that the company can find out how far the use of its assets can generate profits.

The following research conducted by Arianandini and Ramantha (2018) investigated the impact of profitability on tax evasion and found that it had a negative impact. Financial capability has a progressive impact on tax evasion, according to research by Dewinta and Setiawan (2016) and Praditasari and Setiawan (2017), because the firm is able to handle its assets accurately and will benefit from tax incentives and other tax concessions, making the company appear to be avoiding tax.

In addition to profitability, there are other factors that influence tax evasion, namely leverage. In this case, the amount of debt used by the firm to finance its running activities is referred to as leverage. (Praditasari & Setiawan, 2017) in which the company finances or buys assets by making debt first. Companies with high levels of leverage can have an impact on the emergence of large financial risks, but also have great opportunities to generate high profits. Leverage ratio is measured by Debt to Total Assets (DAR) in which this percentage is used to determine the proportion of company assets financed by total debt.

Several studies on the influence of leverage on tax evasion state the following outcomes. According to (Dewinta & Setiawan, 2016) leverage has no influence on tax evasion because the greater the corporation's debt level, the more conservative the management will be in making financial reporting on the company's activities. In contrast. research conducted by Oktamawati (2017) and Praditasari and Setiawan (2017) concludes that leverage has a favorable influence for tax evasion because debt that results in the appearance of interest expenditures might be a decrease in profit due to taxes, whereas dividends from retained earnings cannot be a deduction profit.

The next factor is institutional ownership. According to Pohan in Reinaldo (2017), the proportion of shares owned by institutions and blockholder ownership called as institutional ownership (Investors with a share ownership position of at least 5%). However, they are not included in the category of management ownership. When a company has institutional ownership, it will encourage enhanced supervision to improve managerial performance.

According to Faizah and institutional Adhivinna (2017).ownership has no impact on tax evasion. This identifies that low or high institutional ownership in the company will not affect tax evasion. In contrast to the findings of Prasetvo and Pramuka (2018) and Putri and Lawita (2019), who found that institutional ownership has a auspicious and substantial influence on tax evasion.

Another factor that influences tax evasion is the firm's size. Firm size is a measure or metric that can be used to classify organizations based on total assets, log size, share value, and other factors. Hormati, quoted from research by Faizah and Adhivinna (2017), states that the greater the total assets, the bigger the size of the company, the bigger the company, the more and more complex the transactions that occur in the company. Assets are company resources that can be used bv corporations in tax evasion actions, because of the costs attached to these assets. These expenses are deducted from pre-tax profits in order to lessen the tax burden.

According to the findings of research conducted by Dewi and Noviari (2017) and Praditasari and Setiawan (2017), firm size has a negative influence on tax evasion, with the larger the company, the less likely it is to engage in tax evasion. This is due to the fact that larger corporations can pool their resources to create a good tax strategy. In contrast to Dewinta and Setiawan (2016)'s findings, it was discovered that firm size had a beneficial impact on tax avoidance. Meanwhile, Handavani (2018) discovered that tax evasion is

influenced in part by the corporation's size.

This study refers to the research of Arianandini and Ramantha (2018). However, in previous research, there are several differences, namely this study adds one variable, namely company size. The reason for adding the firm size variable as a new variable is based on previous research showing that the firm size variable has an influence on tax evasion. According to Dewinta and (2016),size Setiawan the of а corporation has a beneficial impact on tax evasion. When compared to organizations with modest total assets, companies that are gathered into large sizes (possessing large assets) will be more capable and be steady in generating profits.

The background for submitting this research is the explanation of the inconsistent research gap and the theoretical support that has been presented previously. There are various factors that can affect tax evasion, taking into account these factors, the researcher will investigate and gather empirical evidence on the effects of profitability, leverage, institutional ownership, and firm size on tax evasion in this study. Case studies of industrial corporations listed on the ISE are used in this research in 2017-2019. Therefore, the author was moved to conduct a study entitled "The Effect of Profitability, Leverage, Institutional Ownership, and Firm Size on Tax Avoidance: An Empirical Study on Manufacturing Companies Listed on the ISE for the 2017-2019 Period."

### LITERATURE REVIEW Agency Theory

Jensen and Meckling (1976) describe agency theory as a theory on cooperation between two parties, namely the principal and the agent. The interaction between corporate owners and management is the subject of this theory. The principal is the company's shareholder or owner, while the agent is the person who is responsible for explaining the company's owner's responsibilities.

### Trade Off Theory

Trade off theory was first introduced in 1963 by Modigliani and Miller in an article of "America Economic 53" (1963. June) Review entitled "Corporate Income Taxes on the Cost of Capital: A Correction". This theory explains the amount of the company's debt and company equity so that there is a balance between costs incurred and profits. In other words, this theory argues that if the company carries out investment financing using debt, it can benefit from the tax advantages of interest payments, which can lower the total of tax paid by the company, where interest is calculated as a cost and reduces taxable income, but in addition to the gain on benefits. The company has a tax risk of bankruptcy.

### Tax Avoidance

Tax evasion is the act of attempting to avoid paying taxes by complying with tax provisions and using strategies in the field of taxation used. This is accomplished by using tax loopholes to decrease or eliminate tax liabilities while remaining compliant with the law. Tax evasion is legally not prohibited, although it often gets a bad opinion from the tax office because it is considered to have а negative connotation. This is distinct from tax evasion, which is an attempt to lower the amount of tax owed by breaking the law. Tax evasion perpetrators can be subject to administrative sanctions or criminal sanctions.

### Profitability

Financial capability is a metric used to evaluate a company's success. Return on Assets (ROA) is a term, which is represents a corporation's capacity to efficiently use its assets in creating corporate profits from asset management (Arianandini & I Wayan Ramantha, 2018). Thus, the corporation can estimate or quantify the extent to which its assets are utilized in obtaining profits or profits efficiently. If the company's profitability is high, it will generate high profits so that there is an aspect of high political costs.

### Leverage

Leverage is a proportion that estimates how much of a firm's assets are financed by debt, with the corporation financing its assets first by taking on debt. Leverage, according to Praditasari and Setiawan (2017), is a comparison that displays the quantity of debt a firm uses to finance its operating activities. The company's high degree of leverage will have an impact on the emergence of a huge financial risk, but it will also provide potential for large gains.

### Institutional Ownership

Institutional ownership is vital better management in ensuring performance since it is seen to be capable of adequately monitoring every decision made by managers and can force them to cautious when be more making opportunistic judgments. Institutional and blockholder ownership (investors owning more than 5% of a company's stock) are both manifestations of institutional ownership, although they are not included in the managerial ownership category. Pohan in Reinaldo (2017) stated that, This institutional ownership plays a crucial function in monitoring management, and its presence will optimally stimulate enhanced supervision.

### **Company Size**

A scale that may classify a firm's size in a specific way is known as the company size scale. According to Hormati, as quoted in Faizah and Adhivinna (2017), company size is a scale that categorizes a firm's size in different categories, containing total assets, log size, and stock market value. Corporations with a substantial total asset base are considered to be more reliable and capable of bigger profit margins. As a result, the company's resources are seen as an effort or step toward good tax planning.

### METHOD

### Population and Sample

Industrial enterprises registered the ISE comprise the study's on population. Industrial companies were chosen because according to the Head of Sub-Directorate the of Special Transactions of the Directorate General of Taxes, most of the tax evasion was carried out by industrial companies. Furthermore, the BEI has a sufficient number of industrial enterprises to be employed as study samples. As a result, by utilizing industrial corporations that are listed on the IDX, the researchers hope to get precise and accurate results.

Purposive sampling was employed to choose the samples. Purposive Sampling means that the determination of the sample by considering certain criteria for the object in accordance with the aim of obtaining a representative sample. The criteria for sampling in this study are as follows:

- 1. Industrial businesses have been listed on the ISE in 2017 up to 2019
- 2. Industrial businesses with positive net income before tax or no losses during the 2017-2019 period.
- 3. Research variables are linked to industrial enterprises who submit comprehensive data between 2017 and 2019.

### Type and Source of Data

Secondary data is the sort of data applied in this study. Secondary data is

information gathered through intermediaries or existing sources. Secondary data in this study comes from state-owned enterprises that were listed on the ISE between 2017 and 2019. IDX Statistics the IDX website: or http://www.idx.co.id on the company's financial reports for 2017-2019, is the data source for this study.

### **Data Collection**

Documentation strategies will be used to collect data in this project. The documentation methodology is a data gathering method that is targeted to the research subject in an indirect way. In this study, the documentation technique was gathered from state-owned enterprises that were listed on the ISE between 2017 and 2019.

### Data Analysis

The analytical technique utilized in this research was computer-assisted analysis using Microsoft Excel and the SPSS statistical version 24 application tool. Before assessing the data that will be provided, it is required to test the classical assumptions to see if the data is normal, multicollinear, autocorrelation, or heteroscedastic.

### **Descriptive Statistics**

A descriptive statistical test can give you a high-level picture of your data. The average value (Mean), standard deviation, variance, maximum, minimum, sum, range, kurtosis, and skewness were used to determine the test in this study (Ghozali, 2016).

### Classic assumption test

The data was put through a classic assumption test to see if it was worth examining. The tests carried out are as follows:

1) *Normality Test:* The normality test determines if the confounding or residual variables in a regression

model have а normal distribution. (Ghozali; 2013: 160). Normality test can be done with the Kolmogorov Smirnov statistical test (K-S) which was done by making a null hypothesis (H0) for normally distributed data and alternative hypothesis an (HA) for data not normally distributed. The data is said to meet the assumption of normality or normal distribution if the significance value of the Kolmogorov Smirnov test results (K-S), if sig. > 0.05 then the data is normally distributed.

- 2) *Multicollinearity* Test: Multicollinearity is a sign of independent variable correlation, as evidenced by a high connection between independent variables. The existence of multicollinearity symptoms can be seen from the tolerance value or the Variance Infation Factor (VIF) value. The tolerance value limit is 0.1 and the VIF limit is 10. In this test, if the tolerance value is > 0.1 or VIF < 10, there is no multicollinearity.
- 3) *Autocorrelation* Test: The autocorrelation test is used to examine whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (prior) in the regression model in this study. The Durbin-Watson Test (DW Test) is used to see if there is a correlation in the observed data. In this study, the Durbin-Watson Test (DW Test) was used to test the autocorrelation with the following hypotheses: 1) H0 = no autocorrelation (r = 0);

and 2) H1= there is autocorrelation  $(r \neq 0)$ 

The criteria for autocorrelation *Durbin-Watson* Test (DW Test):

- a. If 0 < d < dl, then there is a positive autocorrelation
- b. If dl≤ d du, then there is no certainty whether there is autocorrelation or not (undecided)
- c. If 4-dl < d < 4, then there is a negative autocorrelation
- d. If 4-du d 4-dl, then there is no certainty whether there is autocorrelation or not (undecided), and
- e. If du < d < 4-du, then there is no autocorrelation either positive or negative
- 4) *Heteroscedasticity* Test: Heteroscedasticity test is carried out to test whether in a regression model there is an inequality of variance from residuals the from one observation another to observation. То detect heteroscedasticity can use the *Glejser* test. Statistically the independent variable is said to be insignificant because sig > 0.05, so that the more insignificant the explanatory variable indicates that the model is free from heteroscedasticity symptoms there or are no heteroscedasticity symptoms.

## Multiple Linear Regression

The effect of two or more independent variables on the dependent variable is tested using the multiple regression tests. Profitability, leverage, institutional ownership, and firm size are the independent factors in this study. While the dependent variable is Tax

Test

Avoidance. In this study, the equation to test the hypothesis is TA =  $\alpha$  +  $\beta$ 1ROA +  $\beta$ 2DER +  $\beta$ 3INST+  $\beta$ 4SIZE +  $\epsilon$  in which:

### Hypothesis test

Hypothesis testing was done in this study utilizing a regression model and many tests, including the notion of determination (goodness of fit), F test (overall fit), and t test to see how good the regression model was (significance test).

# Coefficient of Determination Test (R<sup>2</sup>)

The coefficient of determination is a test used to determine how well the independent variable can explain the dependent variable. The ability to explain the variance of the dependent variable is measured in terms of how far it can be explained. R Square and Adjusted R Square can be used to display value of the coefficient the of determination. The Adjusted R Square value is used in this study to show that the data is not unbalanced towards the number of independent variables in the model. This means that if one independent variable is added to the equation, the value of R square changes, regardless of whether the independent variable has a significant effect on the dependent variable or not. In contrast to the Adjusted R Square, when a new independent variable is added, if it is significant, the value will change correspondingly, but if it is not significant, the value will remain the same. As a result, many researchers evaluate the optimal regression model using the Adjusted R Square value (Ghozali, 2016).

### Model Feasibility Test (F Test)

Simultaneous F test is used to determine whether the regression model is fit or not. To determine the test, then the following test steps:

- 1. Determining the hypothesis: 1) Ho: b = 0 (There is no simultaneous effect between the independent variables on dependent the variable. which means that the regression model is not fit or good); and 2) Ha:  $b \neq 0$  (There is a simultaneous influence between the independent variables on the dependent variable which means the regression model is classified as fit or good).
- Determine the level of significance of 95% (Alpha = 0): 1) df = n k 1 where n = sample, and k = independent variable; and 2) t<sub>tabel</sub> = t (n k 1; Alpha = 0,05)
- 3. Decision Criteria: 1) If the calculated F value ≥ F table or its significance ≤ 0.05, then Ho is rejected and Ha is accepted, implying that the independent factors have a significant effect on the dependent variable when they are combined; and 2) If F count < F table or significance value > 0.05 then Ho is accepted and Ha is rejected, implying that there is no

significant interaction between the independent variables and the dependent variable.

### Individual Parameter Significance Test (T Statistic Test)

To see if each independent variable had a significant effect on the dependent variable, the t statistic test or individual testing was used. In this test, the calculated t value will be compared with the t table value. Here are the steps for individual testing (t test):

- 1. Determining hypothesis: 1) If Ho:  $\beta 1 = 0$  the dependent variable is then unaffected by the independent variable.; 2) If Ha:  $\beta 1 \neq 0$  the dependent variable is then affected by the independent variable.
- 2. Determining  $t_{count}$  with the significant level of 5%: 1) If P-value > 0.05 and  $t_{count} < t_{table}$  then Ho is accepted; and 2) If P-value < 0.05 and  $t_{count} < t_{table}$  then Ha is accepted.

## FINDINGS AND DISCUSSION

#### Description of Research Object

## Overview of the Research Population and Sample

The sample in this study is an industrial business that was listed on the ISE in 2017-2019 and has financial reports during the research period. The sampling distribution is as follows:

| No | Description  | 201  | 2018 | 2019 | Total |
|----|--|------|------|------|-------|
| 1  | For the year 2017-2019, industrial firms listed on the ISE   | 153  | 161  | 177  | 491   |
| 2  | Industrial companies whose net income before<br>tax is not positive for the period of 2017, 2018<br>and 2019 | (32) | (30) | (33) | (95)  |
| 3  | Industrial firms that lack complete financial data on criteria such as profitability, leverage,              | (42) | (52) | (65) | (159) |

Tabel 4.1 Sample Distribution

| institutional ownership, and company size are excluded from the study. |    |    |    |     |
|--|----|----|----|-----|
| Sample Total   | 79 | 79 | 79 | 237 |

Source: Data processed 2021

The research sample consisted of 237 industrial enterprises throughout a three-year period, as shown in the table. Profitability, leverage, institutional ownership, and business size are the four independent variables used in this study. Meanwhile, the Tax Avoidance variable was used as the dependent variable.

### Data Analysis

Descriptive Statistical Analysis

To provide an overview or description of the variables in this study,

descriptive statistics are used. The most fundamental type of analysis is descriptive analysis, which is used to characterize the general status of the data. On the variables of profitability, leverage, institutional ownership, and company size, descriptive tests such as the average (Mean), standard deviation, maximum, and minimum were used. The results of descriptive statistics in this study are as follows:

| Table 4.2   Descriptive Statistics |                                       |            |              |         |         |  |  |  |
|------------------------------------|---------------------------------------|------------|--------------|---------|---------|--|--|--|
|                                    |                                       | Descriptiv | e Statistics |         |         |  |  |  |
|                                    | N Minimum Maximum Mean Std. Deviation |            |              |         |         |  |  |  |
| ROA                                | 237                                   | ,00        | ,72          | ,0690   | ,07554  |  |  |  |
| Laverage                           | 237                                   | -2,21      | 5,44         | ,9327   | ,87278  |  |  |  |
| Institusi                          | 237                                   | ,00        | 1,00         | ,6619   | ,20605  |  |  |  |
| Size                               | 237                                   | ,00        | 33,49        | 28,7095 | 2,50141 |  |  |  |
| Tax Avoidance                      | 237                                   | ,21        | ,99          | ,6216   | ,22999  |  |  |  |
| Valid N (listwise)                 | 237                                   |            |              |         |         |  |  |  |

Source: Data processed from SPSS

The results acquired from each variable. namelv the profitability variable assessed by return on assets (RoA), obtained an average value (Mean) of 0.069 based on the descriptive statistics in table 4.2 above with a total sample of 237 data. Based on the results of standard errors of mean, a minimum and maximum range of population data can be determined. The minimum ratio is 0.00 while the maximum ratio is 0.72. 0.07554 is the standard deviation value. The average value (Mean) reveals a result that is less than the standard deviation value, indicating that the data is unequally distributed, implying that there is a significant difference between one data set and another.

The leverage variable's average value (Mean) is 0.9327. The minimum and maximum population data ranges can be derived using the results of standard errors of mean. The minimum ratio is -2.21 while the maximum ratio is 5.44. The standard deviation value is 0.87278. The average value (Mean) provides a result that is greater than the standard deviation value, indicating that the data is evenly distributed, with little difference between one data set and the next.

Institutional ownership is known to have an average value (Mean) of 0.6619. Based on the results of standard errors of mean, a minimum and maximum range of population data can be determined. The minimum ratio is

0.00 while the maximum ratio is 1. The standard deviation value is 0.20605. The average value (mean) shows a result that is greater than the standard deviation value, so that this value indicates that the data is evenly distributed, meaning that there is no much difference between one data and another.

Firm size has an average value (Mean) of 28.7095. Based on the results of standard errors of mean, a minimum and maximum range of population data can be determined. The minimum ratio is 0.00 while the maximum ratio is 33.49. The standard deviation value is 2.50141. The average value (Mean) is greater than the standard deviation value, so this value indicates that the data is evenly distributed, meaning that there is no much difference between one data and another.

Tax avoidance has an average value (Mean) of 0.6216. Based on the results of standard errors of mean, a minimum and maximum range of population data can be determined. The minimum ratio is 0.21 while the maximum ratio is 0.99. The standard deviation value is 0.22999. The average number (Mean) is higher than the standard deviation value, indicating that the data is evenly distributed, with little difference between one data set and the next.

### Classic assumption test

The classic assumption test is used to see if the multiple regression model used to analyze the data fits the classical assumptions. The following is the traditional assumption test:

#### 1. Normality Test

The normality test aims to see if the regression model of the independent and dependent variables is regularly distributed. In this work, two methods were utilized to determine the normality of the residuals: graphical analysis and statistical analysis. According to the output of SPSS Version 24, the data distributes around the diagonal line and follows the diagonal line or histogram graph. This shows that the study's distribution pattern is normal. The following typical P-P plot graph provides more information:



Figure 4.2 P-P Plot Graph of Research Data Normalitv

Normality tests with graphs can be deceiving, if you're not careful, graphs that look normal can be statistically the other way around. In order to avoid this, this study also uses statistical tests, namely the Kolmogorov-Smirnov (K-S) test. The value of Kolmogorov-Smirnov (K-S) is 0.081 and a significance level of 0.070 0.05, this means that Ho is accepted which means the residual data is normally distributed. More details can be seen in table 4.3 below:

| Normality Test<br>One-Sample <i>Kolmogorov-Smirnov</i> Test |                |                         |  |  |
|---|----------------|-------------------------|--|--|
| One-Sample Kolmogorov-Smirnov Test                          |                |                         |  |  |
|   |                | Unstandardized Residual |  |  |
| Ν   | 237            |                         |  |  |
| Normal Parameters <sup>a,b</sup>                            | Mean           | ,0000000                |  |  |
|   | Std. Deviation | ,22510376               |  |  |

Table 4.3

| Most Extreme Differences               | Absolute | ,081  |
|--|----------|-------|
|  | Positive | ,069  |
|  | Negative | -,081 |
| Test Statistic                         |          | ,081  |
| Asymp. Sig. (2-tailed)                 |          | ,070° |
| a. Test distribution is Normal.        |          |       |
| b. Calculated from data.               |          |       |
| c. Lilliefors Significance Correction. |          |       |

### 2. *Multicollinearity Test*

The independent variables must not have a perfect connection or have multicollinearity in order for the multiple regression models to be valid. Multicollinearity testing indicators include the level of variance inflation factor (FIV) and tolerance value. There is no multicollinearity symptom if VIF is less than 10 and tolerance is more than 0.1. Table 4.4 shows the findings of the multicollinearity test in detail:

Table 4.4 Multicollinearity Test

| Coefficients <sup>a</sup>            |           |      |       |  |  |
|--------------------------------------|-----------|------|-------|--|--|
| Collinearity Statistics              |           |      |       |  |  |
| Model Tolerance VIF                  |           |      |       |  |  |
| 1                                    | ROA       | ,947 | 1,056 |  |  |
|                                      | Laverage  | ,954 | 1,049 |  |  |
|                                      | Institusi | ,964 | 1,038 |  |  |
|                                      | Size      | ,984 | 1,017 |  |  |
| a. Dependent Variable: Tax Avoidance |           |      |       |  |  |

The profitability variable has a VIF value of 1.056, the leverage variable

has a VIF value of 1.049, the institutional ownership variable has a VIF value of 1.038, and the firm size variable has a VIF value of 1.017, as shown in table 4.4. Because the result is less than 10 and the tolerance is greater than 0.1, the conclusion is that the independent variable is free of the classical assumption of multicollinearity. As a result, the regression model in this study exhibit multicollinearity does not symptoms.

### 3. Autocorrelation Test

The autocorrelation test is applied to see if there is a relationship between members of a time-ordered series of observations. In a regression model, Durbin-Watson is used to detect the presence of autocorrelation or values. The Durbin-Watson value of 1.455, which is between -2 and +2, indicates that there is no autocorrelation, according to the calculations. Table 4.5 below shows the outcomes of the SPSS Version 24 output:

| Table 4.5   |                                |             |                   |                              |            |  |  |  |
|---|--------------------------------|-------------|-------------------|------------------------------|------------|--|--|--|
|   | Autocorrelation Test           |             |                   |                              |            |  |  |  |
| Model Summary <sup>b</sup>                                |                                |             |                   |                              |            |  |  |  |
|   | Durbin-                        |             |                   |                              |            |  |  |  |
| Model   | R                              | R Square    | Adjusted R Square | Std. Error of the Estimation | ate Watson |  |  |  |
| 1   | 1 ,205ª ,042 ,025 ,22704 1,455 |             |                   |                              |            |  |  |  |
| a. Predictors: (Constant), Size, Institusi, Laverage, ROA |                                |             |                   |                              |            |  |  |  |
| b. Depend   | lent Varia                     | ble: Tax Av | voidance          |                              |            |  |  |  |

### 4. *Heteroscedasticity Test*

Plotting graph analysis between the predicted value of the linked variable, specifically ZPRED, and the residual SRESID is one technique to detect the existence or absence of heteroscedasticity in this regression model. There is no discernible pattern in the SPSS output findings, and the points

span above and below the number 0 on the Y axis, indicating that there is no heteroscedasticity. The graph below is based on the output findings of SPSS Version 24:



Figure 4.3 Heteroscedasticity Test

The absolute residual value is plotted against other independent variables in a regression to perform the Glejser test. The Glejser test findings in this study are listed in the table below:

| Glejser Test |                           |              |            |              |       |      |  |  |
|--------------|---------------------------|--------------|------------|--------------|-------|------|--|--|
|              | Coefficients <sup>a</sup> |              |            |              |       |      |  |  |
|              |                           | Unstan       | dardized   | Standardized |       |      |  |  |
|              |                           | Coefficients |            | Coefficients |       |      |  |  |
| Model        |                           | В            | Std. Error | Beta         | t     | Sig. |  |  |
| 1            | (Constant)                | ,107         | ,088       |              | 1,220 | ,224 |  |  |
|              | ROA                       | -,075        | ,099       | -,051        | -,759 | ,448 |  |  |
|              | Laverage                  | -,003        | ,009       | -,024        | -,366 | ,715 |  |  |
|              | Institusi                 | ,038         | ,036       | ,071         | 1,067 | ,287 |  |  |
|              | Size                      | ,002         | ,003       | ,056         | ,848, | ,398 |  |  |
| a. Depen     | dent Variabl              | e: APRESE    | D          |              |       |      |  |  |

Table 4.6

Based on the results of the Glejser test, it can be deduced that there are no symptoms of heteroscedasticity in the regression analysis, with a significant value of 0.448 for profitability, 0.715 for leverage, 0.287 for institutional ownership, and 0.398 for firm size. These results clearly show that no statistically significant independent variable affects the dependent variable APRESED, which is due to the independent variable's significant value.

#### Multiple Linear Regression Analysis

Statistical analysis used in this is multiple regression. This study analysis is used to determine the magnitude of the effect of the independent variables on the dependent variable. The data obtained from each variable indicator, will be calculated together through a multiple regression equation. Based on calculations through the SPSS Version 24 program, the following regression results were obtained:

| Table 4.6                                   |
|---|
| Multiple Linear Regression Analysis Results |

| Coefficients <sup>a</sup> |              |            |              |   |      |  |  |
|---------------------------|--------------|------------|--------------|---|------|--|--|
|                           | Unstand      | lardized   | Standardized |   |      |  |  |
|                           | Coefficients |            | Coefficients |   |      |  |  |
| Model                     | В            | Std. Error | Beta         | t | Sig. |  |  |

| 1         | (Constant)                           | ,995  | ,178 |       | 5,592  | ,000 |  |  |
|-----------|--------------------------------------|-------|------|-------|--------|------|--|--|
|           | ROA                                  | ,303  | ,201 | ,100  | 1,508  | ,133 |  |  |
|           | Laverage                             | ,027  | ,017 | ,102  | 1,549  | ,123 |  |  |
|           | Institusi                            | -,169 | ,073 | -,151 | -2,307 | ,022 |  |  |
|           | Size                                 | -,011 | ,006 | -,117 | -1,801 | ,073 |  |  |
| a. Depend | a. Dependent Variable: Tax Avoidance |       |      |       |        |      |  |  |

Based on table 4.6 above, the regression equation formed in this regression test is  $Y = 0.995 + 0.303X_1 + 0.027X_2 - 0.169X_3 - 0.011X_4$  in which:

- Y = Tax Avoidance
- $X_1 = RoA$
- X<sub>2</sub> = Leverage
- X<sub>3</sub> = Institution
- $X_4 = Size$
- 1. The constant = 0.995 shows a positive sign, indicating that Tax Avoidance is calculated by the regression equation. The constant states that if the other variables RoA, leverage, institutional ownership and firm size are considered constant or zero, then the constant will be able to increase the stock price by 0.995.
- 2. The RoA regression coefficient of 0.303 states that every 1% increase in inflation causes a 0.303 increase in tax avoidance modifications.
- 3. Leverage regression S coefficient of 0.027 states that C Table 4.7

each additional 1% of Leverage will increase the change in Tax avoidance that occurs is 0.027.

- 4. Institutional Ownership regression coefficient of -0.169 states that each additional 1% of institutions will reduce the Tax Avoidance change that occurs is -0.169.
- 5. The regression coefficient for Company Size is -0.011 which states that every 1% increase in Company Size will reduce the change in Tax Avoidance that occurs by -0.011.

### Hypothesis test

In this study, hypothesis testing was done with the use of a statistical tool called SPSS Version 24.

### 1. Coefficient of Determination Test (R<sup>2</sup>)

The coefficient of determination is a measurement of the independent variables' capacity to explain the dependent variable. The Adjusted R Square value determines the determination value.

| Coefficient of Determination Test |   |      |      |        |  |  |  |  |
|-----------------------------------|---|------|------|--------|--|--|--|--|
| Model Summary <sup>b</sup>        |   |      |      |        |  |  |  |  |
| Model                             | ModelRR SquareAdjusted R SquareStd. Error of the Estimate |      |      |        |  |  |  |  |
| 1                                 | ,205 <sup>a</sup>   | ,042 | ,025 | ,22704 |  |  |  |  |
| a. Predict                        | a. Predictors: (Constant), Size, Institusi, Laverage, ROA |      |      |        |  |  |  |  |
| b. Depend                         | b. Dependent Variable: Tax Avoidance                      |      |      |        |  |  |  |  |

The corrected coefficient of determination (adjustedR2) is 0.025, according to table 4.7. The adjustedR2 value ranges from 0 to 1. All independent

variables (profitability, leverage, institutional ownership, and business size) may explain 0.025 of the dependent variable (Tax Avoidance), whereas the remaining 0.975 percent is explained by other variables not provided in this study.

2. Model Feasibility Test (Uji F)

The F test is used to determine whether or not all of the independent

factors have a combined effect on the dependent variable. The test was conducted with a 0.05 significance level. The following are the results of this test:

|                    |                     | Tak                      | ole 4.8  |             |       |                   |  |  |  |
|--------------------|---------------------|--------------------------|----------|-------------|-------|-------------------|--|--|--|
| F Test             |                     |                          |          |             |       |                   |  |  |  |
| ANOVA <sup>a</sup> |                     |                          |          |             |       |                   |  |  |  |
|                    | Model               | Sum of Squares           | df       | Mean Square | F     | Sig.              |  |  |  |
| 1                  | Regression          | ,524                     | 4        | ,131        | 2,543 | ,040 <sup>b</sup> |  |  |  |
|                    | Residual            | 11,959                   | 232      | ,052        |       |                   |  |  |  |
|                    | Total               | 12,483                   | 236      |             |       |                   |  |  |  |
| a. De              | ependent Variable:  | Tax Avoidance            |          |             |       |                   |  |  |  |
| b. Pr              | edictors: (Constant | t), Size, Institution, I | leverage | , RoA       |       |                   |  |  |  |

The results of the ANOVA or F test of 2.543 with a significant level value of 0.040, which indicates it is less than 0.05, are shown in table 4.8. It may be inferred that the factors of profitability, leverage, institutional ownership, and business size all have an impact on tax availability, indicating that the model is fit.

| 3.             | Individual  | Parameter |       |  |
|----------------|-------------|-----------|-------|--|
|                | Significant | Test      | (Test |  |
| Statistical t) |             |           |       |  |

Simultaneous testing is to see if these independent variables have an effect on the company's dependent variable. Table 4.6 summarizes the findings of the t test. The t test findings can be interpreted as follows, based on table 4.6:

> H1: The profitability variable has a significance value of 0.133. Significant value of 0.133 is greater than the significance level of 0.05. While in the statistical test the value of the unstandardized beta coefficient owned by the profitability variable is 0.303. This means that there is no significant effect

between the profitability variables on tax avoidance. This shows that H1 is rejected. Thus, H1: "Profitability has no significant effect on Tax Avoidance" is rejected.

H2: The leverage variable has a significance value of 0.123. Significant value of 0.123 is

than greater the significance level of 0.05. While in the statistical test the value of the unstandardized beta coefficient owned by the leverage variable is 0.027. This means that there is no significant effect between the leverage variable on tax avoidance. This shows that H2 is rejected. Thus, H2: "Leverage has no significant effect on Tax Avoidance" is rejected.

H3: Institutional ownership variable has а significance value of 0.022. Score significant level of 0.022 is smaller than the level of significance of 0.05. While in the statistical test the value of the unstandardized beta coefficient owned by the institutional ownership variable is -0.169. This means that there is a significant positive effect between institutional ownership on tax avoidance. This shows that H3 is accepted. Thus, "Institutional H3: Ownership has а significant effect on Tax Avoidance" is accepted.

H4: Firm size variable has a significance value of 0.073. Significant value of 0.073 is greater

than the level of significance of 0.05. While in the statistical test the value of the unstandardized beta coefficient owned by the leverage variable is -0.011. This means that there is no significant effect between firm size variables on tax avoidance. This shows H4 rejected. Thus, H4: is "Company size has no significant effect on Tax Avoidance" is rejected.

### CONCLUSION

For the year 2017-2019, the purpose of this study is to present empirical evidence on the effect of profitability, leverage, institutional ownership, and business size on tax avoidance in industrial companies listed on the ISE. The data was analyzed with the help of SPSS Version 24 and various linear regression models. It can be concluded as follows based on the results of statistical tests performed on the above variables on tax evasion:

- 1. The profitability variable has no impact on tax evasion.
- 2. The leverage variable has no influence on tax evasion.
- 3. Variables in institutional ownership have a substantial impact on tax evasion.
- 4. The firm size variable has no influence on tax evasion.

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