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The Effect of Tax Planning on Earnings Management

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ABSTRACT
This study aims"to determine the effect of tax planning accompanied by other variables, namely leverage and firm size, on earnings management. The research method is a descriptive and quantitative study using statistical techniques of multiple linear regression analysis. The population are "non-manufacturing companies in the infrastructure sector listed on the Indo-nesia Stock Exchange (IDX) during 2014-2018. Sample selection using the purposive sam-pling technique was obtained from 19 firms. The sources of data in this research are second-ary data. The results show that tax planning and company size affect earnings management. Vice versa, the variable leverage and interest rates don't affect earnings management. Simul-taneously, leverage, tax planning, and company size significantly influence earnings manage-ment. What needs to be considered, taxpayers undertake a practice to reduce or minimize the tax burden to be paid to the state, often slipping into fraud such as tax evasion.

Keyword: Company Size, Earnings Management, Leverage, Nonmanufacturing Companie, Tax Planning.

1. INTRODUCTION

The company should survive in the short and long term by generating maximum profit for each product or service produced. According to Ghozali & Chariri (2007), one of the essential elements in the financial statements used to measure management performance is profit. Earnings information is necessary for measuring the management performance of a company. According to Siallagan & Machfoedz (2006), Financial reports are essential to know the company's profit, which is an indicator to measure the company's performance. Companies that have high yields will be taken into account by investors in making decisions when buying shares.

According to Agustia (2013), there is a tendency from external parties (investors) to pay more attention to earnings information as a company performance parameter, which will encourage Management to do various things in showing earnings

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information, which is known as earnings management. Healy and Wahlen (1999) define earnings management as changes in a company's economic performance that are reported by internal parties to the company to mislead some stakeholders or influence contractual results. The company will practice earnings management, or financial statement engineering carried out by company management with a specific objective: to increase profits to invest in the company. Generally, Management will report good earnings by the accounting policies on its financial statements. Financial reports show the condition of a company, and it is necessary to do earnings management if a company wants to deliver good corporate financial information for investors to see. The Management carries out companies that carry out earnings management to increase profits so that investors are attracted and invest shares in the company (Widarti et al., 2018)

The factor that can lead to earnings management is tax planning. Tax planning is one of the functions of tax management to regulate the payment of corporate taxpayers. Often companies consider tax to be a burden. Companies look for ways to minimize these expenses as small as possible by existing tax laws to optimize the company's net profit. Therefore, tax planning is a legal action that the government regulates as long as it is by the applicable tax laws in Indonesia. Sumomba et al. (2012) state that tax management a med the amount of tax as low as possible to obtain the profit and liquidation that Management will expect. (Hamijaya, 2015)

Another factor that triggers the practice of earning Management is leverage. According to Nugroho (2011), Leverage ratio is the ratio contained in the financial statements to determine how much the company is financed by debt with its ability described by capital. It may show some of the assets used to secure the debt. Companies with a ratio of leverage are high-impact in practice earnings management because the company relies on lenders to finance the support of its company. Another impact of high leverage is its inability to pay the long-term debt at a specified time.

In contrast, companies with leverage are lower able to finance companies with their capital. Too high corporate debt, which is equal to the approach of the company to the restrictions contained in its debt agreements and the greater the chance for breach of the contract and the cost of technical failure, the more likely managers use an accounting method that can increase profit (Zimmerman, 1990). In addition, companies with high leverage will also face increased risk (high-risk, high return), so investors expect high returns. Because of that, when a company has high leverage, company managers will tend to do earnings management on the company.

Another factor that can encourage indications of earnings management in a company is the size of the company. The size of the company is vital in performing earnings management. A small company will do more earnings management than a large company. It is because small companies are trying to show their healthy financial statements so that investors are interested and invest their capital. Meanwhile, large companies will be more careful in earnings management because the public or investors will publicly display the company's financial statements. According to Irmadi (2018), a company is more cautious in financial reporting and tends to report economic conditions accurately because the community considers it. Meanwhile, small companies tend to perform earnings management by saying higher profits to show better company performance. Small companies tend to want to show companies that consistently perform well to invest their capital in the company.

Previous research, among others, conducted by Gunawan et al. (2015), which looked at the effect of firm size, profitability, and leverage on earnings management, showed that partially firm size, profitability, and leverage did not have a significant effect on earnings

management. Simultaneously, firm size, profitability, and leverage do not significantly affect earnings management. Astutik & Mildawati (2016) looked at the effect of tax planning and deferred tax expense on earnings management, showing that tax planning and deferred tax expense have a significant and positive effect on earnings management. Widiatmoko & Mayangsari (2016) looked at the impact of deferred tax assets, discretionary accruals, leverage, company size, and tax planning on earnings management practices, which showed that deferred tax assets and discretionary accruals had a negative and insignificant effect. Leverage has a negative and significant effect on earnings management, firm size has a positive and significant effect on earnings management, and tax planning has a positive and insignificant effect on earnings management.

Negara & Saputra (2017) examine the effect of tax planning and deferred tax expense on earnings management. The results show that tax planning has a positive effect on earnings management, and deferred tax expense positively affects earnings management. Fikriyah and Herliansyah (2019) analyzed the Effect of Tax Planning and Leverage on Earnings Management with Company Size As a Moderating Variable. The results show that tax planning has a positive relationship and a significant effect on earnings management. In contrast, the leverage variable has a positive relationship but does not significantly affect earnings management. This study also shows that firm size can moderate the relationship between tax planning and earnings management, but firm size cannot moderate the relationship between leverage and earnings management.

Manipulation of tax reports by financial statements has the potential for fraud. Based on data published every two years, the Association of Certified Fraud Examinations (ACFE, 2018) mentions 2,690 cases worldwide. The percentage of fraudulent financial statements in 2018 was 10 percent, with an average total loss of $800,000 over five years. Based on a 2016 survey in Indonesia, the reported percentage of financial statement fraud was 2 (two) percent, with a total loss of $1,000,000 (ACFE Indonesian Chapter, 2017).

Based on the phenomena from the above explanation and interesting previous research to be followed up, this research aims to see the effect of tax planning accompanied by other variables, namely leverage and firm size on earnings management from the explanation above. The company should carry out earnings Management by the provisions and not cause conflict between the Principal and the Management of a company. When a company does not have good earnings management, it is suspected that its financial statements regarding its profit achievement are experiencing many irregularities. This study's population is the infrastructure, utility, and transportation sectors listed on the Indonesia Stock Exchange. We choose this sector because its rapid development is a very important aspect of Indonesia's economic development.

2. LITERATURE REVIEW AND HYPOTHESIS

Watts and Zimmerman (1990) state that earnings management occurs when managers have discretionary behavior related to accounting numbers with or without limitations. It can adopt this behavior to maximize firm value. Davidson et al. (2004) establish that earnings management is the process of taking deliberate steps within the constraints of generally accepted accounting principles to produce the level of earnings expected to be reported. In the same way, Schipper (1989) defines earnings management as a deliberate behavior to change external financial statements to obtain the personal benefits of managers. However, the most frequently used by researchers is that earnings management is the manipulation of a firm's financial statements by managers

based on their judgment to confuse users about the actual economic situation of the firm. Or to influence the contracts that financial statements can rely on (Healy & Wahlen, 1999).

Furthermore, Phillips et al. (2003) define earnings management as a strategy to generate accounting profit through organizational policies related to accounting choices and operating cash flows. Stipulate that earnings management is the practice of Management, opportunistic and education deliberate, to report the desired results to differ from the actual. Since there is no accepted definition of the public, Ruiz (2016) explains that the significance of earnings management is very dependent on the research context. At the same time, most research has focused on firms linking accrual use to income smoothing motivation and providing additional information to users (Collins et al., 1999; Tucker and Zarowin, 2006). International research relates discretionary accruals to a decrease in information quality due to weak national regulations or low investor protection (Leuz et al., 2003; Suyono, 2017).

Leuz et al. (2003) stated that, in particular, internal parties (managers) tend to use the control they have over company resources to benefit themselves at the expense of external parties (shareholders). If internal parties' benefits of personal power are detected, external parties will tend to take disciplinary action against internal parties of the company. As a result, internal parties are incentivized to hide this transfer of resources from external parties. Earnings management is due to the relationship between the agent and Principal (shareholder), which does not have a strong trust relationship. It does not have a strong relationship of trust because the agent does not report all company development information to the Principal in accounting information. After all, it ensures that only Management knows the company's condition. Therefore, an agreement is needed in making decisions between the agent and the principal. Furthermore, "Leuz et al. (2003) argue that internal parties manipulate accounting reports about company performance to hide the advantage of their confidential controls while shareholders want to maximize their utility. One of the ways that agents can do to maximize their profits is by implementing earnings management.

Michelson et al. (1995) said, The agent is a relationship based on an agreement between the two parties, in which the Management (agent) agreed to act on behalf of other parties, namely the owner (Principal). The owner will delegate responsibility to Management, and Management agrees to work on orders or give the owner authority. The concept of earnings management using agency theory is a relationship or contract between company members." Agents and principals have different motivations for making decisions. The agent's reason for making decisions is to maximize the company's welfare, while the Principal's motivation is to increase firm value by maximizing profits to get the maximum dividend distribution. The basis of both can cause problems that arise or the presence of asymmetric information. Scott (2015) explains that if some parties involved in a business transaction have more information than others, the condition is information asymmetry. Information asymmetry can be in the form of unevenly distributed communication between agents and principals, and the Principal can't observe the efforts made by the agent directly. It causes the agent to tend to misbehave (dysfunctional behavior). Dysfunctional behavior is"manipulating financial statements by the Principal's expectations even though the financial information condition is not what the agent does (Debbianita, 2020).

In addition, differences in interests between tax authorities (government) and companies can provide the potential for fraud committed by taxpayers or internal management through tax evasion (Rosa & Setiawan, 2016). Companies can manipulate their financial reports for various purposes,

including tax evasion. The method used by internal management in manipulating its financial reports is carried out illegally in the presence of asymmetric information (Adimashartha & Noviari, 2015). One way to do this is accounting fraud (Lennox et al., 2013; Hashim, Ariff, & Amrah, 2016; Supadmi & Suyadnya, 2017; Prawira & Setiawan, 2018). Internal management can take advantage of loopholes such as manipulating deductible costs that are not reflected in actual transactions, changing non-deductible costs into deductible costs and reporting low company turnover resulting in low pre-tax profit resulting in low tax values (Kurniady, 2020)

Earnings Management

From various definitions of earnings management, it can be said that earnings management activities are financial statement manipulation activities carried out by managers to achieve multiple goals. The action is by arranging profit by calculating the appropriate with the regulations that have been set. Earnings management is an intervention with a specific purpose in the external financial reporting process to obtain personal benefits (Suyono, 2017).

Many researchers have tried to present various models or methods to identify or measure earnings management, e.g., Healy's (1985) model, De Angelo's (1986) model, Jones (1991) model, Kothari (2000) Model, Dechow & Dichev (2002) model, Stubben (2010) model, etc. In general, they have based their way on the assumption that accrual can not be explained by the projection linear of observations carried out at the company's level, referred to as discretionary accruals, which explicitly reflect the activities of earnings management. Dechow et al. state, The use of discretionary accruals as a proxy for earnings management, which is calculated using the Modified Jones Model because this model is considered better among other models for measuring earnings management. The complete formula of the modified John Model is as follows (in Dechow et al., 1995; Suyono, 2017):

a. Calculating the total accruals (TAC) that net profit in year t minus operating cash flow in year t with the following formula:

   $TAC = NIit - CFOit$

   Furthermore, total accruals (TA) are estimated using the Ordinary Least Square as follows:

   $TA_{it}/A_{it-1} = \beta_1(1/A_{it-1}) + \beta_2(\Delta Rev_{it}/A_{it-1}) + \beta_3(PPE_{it}/A_{it-1}) + \varepsilon$

b. With the regression coefficient as in the above formula, the non-discretionary accruals (NDA) are determined by the following formula:

   $NDA_{it} = \beta_1(1/A_{it-1}) + \beta_2(\Delta Rev_{it}/A_{it-1} - \Delta Rec_{it}/A_{it-1} -) + \beta_3(PPE_{it}/A_{it-1})$

c. Finally, discretionary accruals (DA) as a measure of earnings management are determined by the following formula:

   $DA_{it} = TA_{it}/A_{it-1} - NDA_{it}$

   where,

   DA_{it} = Discretionary Accruals for the company i in the period *t*

   NDA_{it} = Non-discretionary Accruals for the company *i* in the period *t*

   TA_{it} = Total accrual of the company *i* in period *t*

   Nu_{it} = net income of company *i* in the period *t*

   CF_{it} = cash flow from operating activities of the company *i* in period *t*

   A_{it-1} = total assets of the company *i* in the period *t-1*

   ΔRev_{it} = company revenue *i in* year *t* minus company *i* revenue in year *t-1*

   PPE_{it} = property *i*, plant, and equipment company i in the period year *t*

   ΔRec_{it} = accounts receivable of the company *i* in year *t* minus the revenue of company *i* in year *t-1*

   ε = error

Tax Planning

Tax planning is an action that aims to minimize tax liabilities by pressing the income statement as low as possible. Tax planning can also be defined as the

planning and fulfillment of tax obligations that are complete, correct, and timely to avoid the waste of resources optimally. Tax planning is concerned with the process of business manipulation and taxpayer transactions carried out to create tax payable in a minimum amount but still within the tax regulations. This tax planning will allow managers to reduce the income value to make the tax imposed by the company smaller (Ulfah, 2013).

The tax planning variable can be measured using profit, namely the company's net profit and profit before tax on the financial statements by the period. Aditama & Purwaningsih (2014) stated that "The formula used is the tax retention rate, which aims to analyze a measure and effectiveness of tax management in the financial statements for the current year, namely:

TTR= (Net income$_{it}$)/(Pretax income (or EBIT)$_{it}$)

where,

TRR_{it} = Tax Retention Rate (rate of tax retention) Company *i* in year *t*

Net income$_{it}$ = net income of company *i* in year *t*

Pretax income = (EBIT$_{it}$) = profit before tax company i year *t*"

Leverage

Earnings management was also associated with the capital structure as measured by leverage. Leverage describes all company assets and financial risks that will burden the company in the future, ultimately affecting stock returns. Therefore, the company should balance how much debt is worth taking and use the sources to pay debts. The company does earnings management to obtain external financing at a lower price (Richardson et al., 2002). Companies with high debt will choose accounting policies by shifting future earnings to the present. Khafa and Laksito (2015) stated, The higher the leverage of a company, the higher the financial risk the company has so that it becomes the spotlight of the Debtholders.

Thus, companies are an increasingly high leverage ratio; debt is higher than the assets. It will tend to manipulate, i.e., do earnings management to avoid debt covenant violations. Herawati and Baridwan's (2007) research shows a higher level of earnings management in companies bound by debt agreements than those not bound by debt agreements (Trisnawati & Nugroho 2011).

Kasmir (2010) said, Leverage is the ratio between total liabilities and total assets. The ratio that can be used is the debt to equity ratio or DER. The greater the leverage ratio, the higher the company's debt value. The calculation of DER can be done as follows:

DER = (Total debt) / (Total assets)

Company Size

Lennox (1999) found audit reports issued by large auditors to be more accurate and informative than those given by small auditors. Peasnell et al. (2000) found that Managers in large companies have a smaller chance of manipulating earnings than managers in small companies. The opposite finding was expressed by Kim et al. (2003) that firm size positively affects earnings management. Small companies avoid earnings management compared to large companies; on the contrary, medium and large companies are more involved in earnings management than small companies. Moses (1997) suggests that Larger companies have a greater incentive to smooth earnings (a form of earnings management) than small companies because they have a higher political cost (Saftiana, 2017). Political costs arise because the company's high profitability can attract the attention of the media and consumers. Research by Chtourou et al. (2001) found that Larger companies lacked the impetus for earnings management than small companies because large companies are seen as more critical by the shareholders and external parties. Large companies have a more extensive investor base, so they are under more substantial pressure to present credible financial reporting (Muklis, 2016).

Sudarmadji & Sularto (2007) stated, Company size can be expressed in total assets, sales, and market capitalization. The greater the value of the company's assets, the faster the audit financial report is submitted, and vice versa. Company size in this study is measured using the logarithm of total assets:

Firm size = Ln Total Asset

Interest Rates

The interest rate is one of the monetary instruments that can influence or motivate the economy in saving or investing. Still, it is also a financial instrument that the company cannot control. The interest rate in question is the interest rate imposed by Bank Indonesia as the Indonesian central bank. The interest rate issued by Bank Indonesia is the BI Rate. According to Kuniawan et al. (2015), If the interest rate increases, it will directly increase the interest expense. Companies with high leverage will significantly impact the rise in the interest rate.

The company must estimate the long-term and short-term loan repayments. Long-term loan repayments must assess the risk that the interest rate will fluctuate over time. Meanwhile, short-term loans estimate a loss rate of reinvestment opportunity. Although long-term are heavily exposed to interest rate risk, short-term bills are heavily exposed to reinvestment rate risk. The higher the risk of repaying a loan, the higher the interest cost charged on loan. When the high-interest rate automatically decreases the company's profit, the manager will change the accounting method according to the existing regulations and be carried out by the company manager. (Weston & Copeland, 1986; Horne & Wachowicz, 2008).

Hypothesis

To see the variables suspected to affect earnings management, then constructed a hypothesis:

Ho1: Tax planning does not affect earnings management

Ho2: Leverage does not affect earnings management

Ho3: Firm Size does not affect earnings management.

The interest rate is included in the model as a variable control in this study. Variable control, as the control variable, is a variable that needs to be in control, to be kept, or at random such that its influence is neutralized, removed, or identified for all conditions (Sugeng, 2007).

3. METHODS

The research method used in this research is the quantitative method. The data analysis technique is descriptive analysis, classic assumption test, multiple linear regression test, and hypothesis testing. Ghozali (2018) stated that multiple linear regression analysis explains the relationship and how much influence the independent (independent) variables have on the dependent variable (Gujarati, 2004).

The equation for the function i is described as follows:

$$Y = a + b_1.X_1 + b_2.X_2 + b_3.X_3 + b_4.X_4 + e$$

where,

Y=Dependent variable (earnings management)

a= Constant

b_i= regression coefficient X_i

X_1= tax planning

X_2= leverage

X_3= company size

X_4= interest rate

e = residual / error

The sectors in the group of non-manufacturing companies on the Indonesia Stock Exchange are divided into 6 (six) sectors, including the agricultural sector; mining; property and real estate; infrastructure, utilities, and transportation; finance and trade, services, and investment. This study's population and sample are non-manufacturing companies in the infrastructure, utility, and transportation sectors listed on the Indonesia Stock Exchange (IDX) during the study period 2014-2018. The sample selection method used was purposive sampling, in which

the study had specific criteria or objectives for the sample to be studied.

The sample in this study (which can be seen in Table 1 below) must meet the following requirements:

a. Infrastructure sector non-manufacturing companies are listed in the IDX for 2014-2018.
b. Publish a complete annual report for the period December 31st, 2014-2018 in the IDX
c. Publish an annual financial report complete for the period de December 31st, 2014 to 2018 in the first Indonesia Capital Market Directory
d. Have complete data regarding leverage, tax planning, and company size
e. During the observation period, the company did not experience a loss
f. Companies that present financial reports in rupiah

In this study, the data used is secondary data, meaning that the data is obtained through intermediary media and presented. The data sources used for this research came from the official website of the IDX. Namely www.IDX.co.id, the Central Bureau of Statistics (BPS) www. bps.go.id, and the official website of Bank Indonesia, namely www.bi.go.id and www.ticmi.co.id.

4. RESULTS AND DISCUSSION

Descriptive Analysis

Next are tables of the descriptive analysis of each variable that consists of the dependent variables, earnings management, and independent variables, namely leverage, tax planning, and the size of the company, including the samples number (N), the sample average (mean), the maximum value and the minimum value (Table 1). Statistical data from earnings management shows that the obser-vations in infrastructure sector companies (infrastructure, utilities, and transportation) listed on the IDX for the 2014-2018 period study was 95 data. The descriptive statistical results of the independent variable tax planning have a minimum value of -7178.00, a maximum value of 327.00, and an average value of earnings management which shows a negative result of -863.2211. These results indicate that the average earnings management used as the sample place has a negative value.

Statistical data from independent variable shows that the number of observations in infrastructure sector companies (infrastructure, utilities, and transportation) listed on the IDX for this study's 2014-2018 period was 95 data, where descriptive statistical results of the:

Figure 1. **Sample List of Non-Manufacturing Companies in the Infrastructure Sector**

No	Company Code	Company Name
1.	AKSI	PT Aksi Putra Prestasi Tbk
2.	BALI	PT Bali Towerindo Sentra, Tbk
3.	CASS	PT Cardig Aero Services Tbk
4.	NELY	PT Pelayaran Nelly Dwi Putri Tbk
5.	TPMA	PT Trans Power Marine Tbk
6.	ASSA	PT Adi Sarana Armada Tbk
7.	BIRD	PT Blue Bird Tbk
8.	CMNP	PT Citra Marga Nusaphala Persada Tbk
9.	HITS	PT Humpuss Intermoda Transportasi Tbk
10.	IBST	PT Inti Bangun Sejahtera Tbk
11.	JSMR	PT Jasa MargaTbk
12.	META	PT Nusantara Infrastructure Tbk
13.	PGAS	PT Perusahaan Gas Negara Tbk
14.	SMDR	PT Samudera Indonesia Tbk
15.	SOCI	PT Soechi Lines Tbk
16.	TBIG	PT Tower Bersama Infrastructure Tbk
17.	TLKM	PT Telekomunikasi Indonesia (Persero) Tbk
18.	TMAS	PT Pelayaran Tempura emas Tbk
19.	TOWR	PT Sarana Menara Nusantara

Source : Data Processed

a. Tax planning variable has a minimum value of 0.20, a maximum weight of 2.60, and an average value shows a positive result of 0.8316. These results indicate that the average tax planning used as a sample place has a positive value. From the sample, the company with low tax planning is PT Pelayaran Tempuran Emas Tbk, and the company with high tax planning is PT Tower Bersama Infrastruktur Tbk.
b. Leverage variable has a minimum value of 0.03, a maximum weight of 0.93, and an average value that shows a positive impact of 0.5148. These results indicate that the average leverage used as a sample place has a positive value. From the samples, a company with low leverage is shipping Nelly Dwi Putri PT Tbk, and a company with high leverage is PT Tower Bersama Infrastructure Tbk.
c. Company size variable has a minimum value of 6.69, a maximum value of 13.41, and an average value that shows positive results. 10.1106 These results indicate that the average company size used as a sample site has a positive value. From the sample, the company with a small company size is PT Bali Towerindo Sentra Tbk, and a company with a high company size is PT Soechi Lines Tbk.
d. Interest rate variable has a minimum value of 4.56, a maximum weight of 7.52, and an average value which shows a positive result of 6.1380. These results indicate that the average interest rate used as a sample place has a positive value.

Classic Assumption Test
The Normality Test

The normality test uses the Kolmogorov-Smirnov test. The results can be seen in the table as follows (Table 2). In the Kolmogorov-Smirnov one-sample test, if the data >0.05, it has a normal distribution, but if<0.05 does not have a normal distribution. Based on the output results, show the value of Asymp.sig (2-tailed) 0.200>0.05 can continue with other classical assumption tests with normally distributed data.

Table 1. **Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Earnings Management	95	-7178 .00	372.00	-863.2211	1373.64351
Tax Planning	95	.20	2.60	.8316	.26226
Leverage	95	.03	.93	.5148	.19478
Company size	95	6.69	13.41	10.1106	2,01163
Interest Rates	95	4.56	7.52	6.1380	1,22526
Valid N (listwise)	95				

Source: Data Processed

Table 2. **One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		95
Normal Parameters [a,b]	Mean	.0000000
	Std. Deviation	2.83829468
Most Extreme Differences	Absolute	.109
	Positive	.071
	Negative	-109.109
Statistical Test		.200[c,d]
Asymp. Sig. (2-tailed)		

Source: Data Processed

The Multicollinearity Test

The multicollinearity test aims to determine the correlation between the independent and dependent variables. The multicollinearity test results can be seen in the following table 3.

Table 3. **Tolerance Value and Variance Inflation Factor (VIF) Coefficients ***

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Tax Planning	.410	2,439
Leverage	.381	2,628
Company size	.790	1,265
Interest Rates	.769	1,301

a. Dependent Variable: Earnings Management (Y)

Source: Data Processed

The results of this study are n use-values tolerance for variable leverage of 0.381>0.10 and VIF of 2,628<10, so the leverage variable is declared no symptoms of multicollinearity. The tolerance value for the tax planning variable is 0.410>0.10, and the VIF value is 2.439<10, so the tax planning variable is declared to have no multicollinearity symptoms. The tolerance value for the company size variable is 0.790>0.10, and the VIF value is 1.265<10, so the company size variable is declared to have no multicollinearity symptoms. The tolerance value for the interest rate control variable is 0.769>0.10, and the VIF value is 1.301<10, so the interest rate control variable is declared to have no multicollinearity symptoms.

The Heteroscedasticity Test

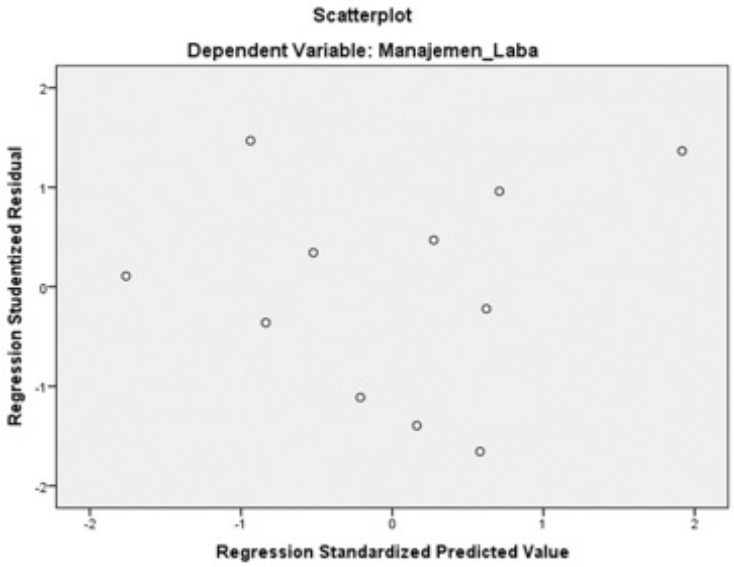
The heteroscedasticity test aims to determine the variance inequality of the residuals from one observation to another. The results of the heteroscedasticity test can be seen in the following figure 2.

The heteroscedasticity test states that the points spread randomly and evenly distributed on the X and Y axes, and the points converge in one place and do not form a specific pattern. It can conclude that the regression model does not experience heteroscedasticity because the independent variables do not influence each other.

The Autocorrelation Test

The autocorrelation test aims to test whether there is a correlation between the confounding error in period t and the confounding error in period t-1 (previous) in the multiple linear regression model. The results of the autocorrelation test can be seen in the following table 4.

Figure 2. **Test Results Heteroscedasticity**



Source: Data Processed

The results above show that the value of DW amounted to 1,758, compared to the value table with a significant value of 5%. Based on the decision-making criteria, the location value of DW is still between 1.7546 (dU) to 2.2454 (4-dU), which means no autocorrelation. Thus it can be concluded that there is no autocorrelation in this regression model.

Multiple Linear Regression

The analysis predicts "the value of the dependent variable if the independent variable has increased or decreased to determine the direction of the relationship between the independent variable and the dependent variable and whether each independent variable is positive or negative. The constants from the regression equation can be seen in the following table 5.

From the table above, the regression equation in this study can be written as follows:

$Y = 4.520 + 17.890\ X_1 + 1.392\ X_2 - 1.477\ X_3 - 182\ X_4 + e$

The constant value of 4.520 means that if the value of tax planning (X_1), leverage (X_2), company size (X_3), and the interest rate (X_4) are 0 of each variable, the earnings management value is 4.520.

Hypothesis Testing

F-test (Simultaneous Testing)

This test is conducted to simultaneously determine all independent variables in the model on the dependent variable. The results of the F-test can be seen in the following table 6.

The value of *F-table* with the provisions $\alpha = 10\%$ and degrees of freedom $df_1 = k-1 = 5-1 = 4$, $df_2 = n-k = 95-5 = 90$. So that the *F-table* is 2.01. Based on table 7, it can see that the value of *F-count*>*F-table* is 4,799>2.01 with a sig. 0.044<0.10 means that there is simultaneously a significant positive effect between the variable leverage (X_1), tax planning (X_2), the size of the company (X_3), and interest rate (X_4) against earnings management (Y).

Table 4. **Durbin_Watson Test Results**

Model Summary [b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson (DW)
1	.873a	.762	.603	3,29830	1,758

a. Predictors: (Constant), Leverage, Tax planning, Firm size, Interest rate

b. Dependent Variable: Earnings management

Source: Data Processed

Table 5. **Regression Test Results from the Model**

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.520	42.007		.108	.918
Tax planning	17.890	8,116	.686	2.204	.070
Leverage	1.392	.908	.495	1.533	.176
Interest rate	-1.477	.652	-.508	-2.265	.064
Firm size	-182	.125	-329	-1.448	.198

a. Dependent Variable: Earnings management

Source: Data Processed

Table 6. **F-Test Results**

ANOVA [a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	208.839	4	52.210	4.799	.044 [b]
	Residual	65.273	6	10.879		
	Total	274.112	10			

a. Dependent Variable: Earnings management

b. Predictors: (Constant), tax planning (X_1), leverage (X_2), the size of the company (X_3), and interest rate (X_4)

Source: Data Processed

t-Test (Partial Test)

This test is conducted to determine the effect of the independent variable on the dependent variable in the sample, non-manufacturing companies in the infrastructure sector listed in the IDX in the 2014-2018 period, by assuming that other independent variables are considered constant. The following are the results of the *t-test*, which can see in table 6. Value of *t-table* is used to provision, α=0.10 and df = n-k = (95-5) = 90, so that the obtained value of *t-table* at 1.66105.

Effect of tax planning (X_1) to the earnings management (Y) of table 5 obtained calculated value, which means *t-count*>*t-table* (2.204>1.66105) with a significant level of 0.070<0.10, it can conclude that Ha received and rejected Ho. It shows that tax planning positively affects earnings in the sample.

Effect of leverage (X_2) to earnings management (Y) of table 5 obtained the calculated value, which means t-count<t-table (1.533<1.66105) with a significant level of 0.176>0.10. It can conclude that Ho is accepted and Ha is rejected. It suggests that leverage does not affect earnings management in the sample.

The influence of the company's size (X_3) on earnings management (Y) of table 5 obtained the calculated value, which means *t-count*>*t-table* (2.265>1.66105) with a significant level of 0.064<0.10. It means that Ha received and rejected Ho. It shows that company size has a negative effect on earnings management in the sample.

The influence of interest rate (X_4) on earnings management (Y) of table 5 obtained the calculated value, which means *t-count*<*t-table* (1.448<1.66105) with a significant level of 0.198>0.10. It means that they received Ho and rejected Ha. It shows that interest rates do not affect earnings management in 2014-2018 non-manufacturing companies listed in the IDX.

Determination Coefficient Test (Adjusted R-Square)

Based on table 5, the value of the determination coefficient (Adjusted R-Square) shows that the effect of the four independent variables (leverage, tax planning, company size, and interest rates) on earnings management is 0.762 or 76.2%. It means that 76.2% of the variation in earnings management variables can be explained by the independent variables, namely leverage (X_1), tax planning (X_2), the size of the company (X_3), and interest rate (X_4) on earnings management (Y) simultaneously. While the remaining 100%-76.2% = 23.8% is explained by other variables that are not researched or not included in the regression model.

5. CONCLUSION

Tax planning affects earnings management. It means that "when there is an increase in tax rates, it provides opportunities for companies to conduct earnings management," which is taxable income. Thus the corporate tax burden is getting smaller because the managers tend to minimize tax payments by applicable tax regulations.

Vice versa, the leverage variable does not affect earnings Management from empirical tests on samples of non-manufacturing companies in the infrastructure sector listed on the

Indonesia Stock Exchange (IDX) from 2014-2018. A high leverage company means a high risk that the company can not pay its debt obligations. It cannot use "the action of earnings management to avoid the company's high risk due to its leverage. But the need to be aware that if leverage is approaching a high risk, the Management needs to make a policy on earnings management to increase revenue. For example, to negotiate the debt and seek funds from investors.

The company's size has a negative effect on earnings management. It is shown that increasing its size can lower the value of earnings management. Thus, the company's size can be considered by a manager in carrying out earnings management in his company. Large companies pay more attention to the public so that managers will be more careful in carrying out financial reporting, thus making the reports more accurate. Interest rates do not influence the manager's decision to conduct earnings management. The government fully controls the interest rate.

For companies, earnings management is an act that can not avoid because profit reporting is one considered by investors. The company must consider accounting standards influencing earnings management, such as tax planning and company size. Investors should be careful in making business decisions. Investors should consider the basic information of companies, such as financial statements" and the achievement of profit. Tax planning needs further attention. Taxpayers undertake a practice to reduce or minimize the tax burden to be paid to the state, often slipping into fraud, for example, tax evasion. This tax evasion reduces paying taxes by not reporting it to the state.

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