THE EFFECT OF LEVERAGE, TAX PLANNING, AND INSTITUTIONAL OWNERSHIP ON EARNINGS MANAGEMENT (EMPIRICAL STUDY ON STATE-OWNER ENTERPRISE LISTED IN INDONESIA STOCK EXCHANGE PERIOD 2015-2019)

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ABSTRACT
This study intends to determine the effect of Leverage, Tax Planning and Institutional Ownership to Earnings Management at state owner enterprise listed in Indonesia Stock Exchange Year 2015-2019. The population in this study is the state owner enterprise listed on the Indonesia Stock Exchange in 2015-2019. The sampling technique used was purposive sampling and obtained 20 companies with a research period of 5 years, to obtain 100 sample data. The data analysis method in this research is ordinary least square using software SPSS 25. The results showed that simultaneously Leverage, Tax Planning and Institutional Ownership have a significant effect on Earnings Management. While partially leverage have a significant effect on the positive direction on Earnings Management, institutional owner have a significant effect on the negative direction on Earnings Management. While Tax Planning have no significant effect on Earnings Management.

Keywords: Leverage, Tax Planning, Institutional Ownership and Earnings Management.

I. INTRODUCTION

Earnings management is a problem that is affected by the conflict between the interests of management (agent) and owner (principal) that arises because each party tries to achieve the desired level of prosperity. The assumption of agency theory states that each individual in an agent and principal contract has his or her own interests, causing a conflict between the agent and the principal. (Panda & Leepsa, 2017). Principals are motivated to gain increased wealth while agents are motivated to fulfill economic needs such as bonuses, salaries and benefits, including obtaining investments, loans, and compensation contracts (Panda & Leepsa, 2017). Thus there are two different interests in the company, this will encourage agents to carry out earnings management.

Several cases related to earnings management carried out by companies in Indonesia, including PT. Garuda Indonesia (Persero) and PT Asuransi Jiwasraya (Persero). The case in PT Garuda Indonesia (Persero) includes revenue recognition and other components of financial statements that according to professional organizations are not in accordance with standards. OJK / Ministry of Finance itself gave a written order to PT Garuda Indonesia (Persero) Tbk to repair and restate PT Garuda Indonesia (Persero) Tbk's LKT as of 31 December 2018 and to conduct a public exposure (public expose) for the repair and restatement of LKT as of 31 December 2018 (Prastowo, 2019).

The case at PT Asuransi Jiwasraya surfaced when the Supreme Audit Agency (BPK), in a preliminary investigative examination, found that PT Asuransi Jiwasraya's (AJS) financial report was fabricated. It was found that there was profit manipulation of Rp 360.3 billion in 2006. Chairman of BPK Agung Firman Sampurna said that at the opening of AJS's financial profit, it received an adverse or modified opinion. If at that time Jiwasraya made a backup, it would show a loss of Rp. 15.3 trillion (Putri, 2020).
There are several factors that affect earnings management, one among which is leverage. Companies with a high level of leverage tend to carry out earnings management to convince creditors and investors that the company has good performance and is able to meet its obligations at maturity (Fairuzanti & Sarumpaet, 2019).

Tax planning is also one of the factors that influence earnings management. In tax obligations, companies have a tendency to minimize the level of profit in order to reduce the tax burden (Boynton, Dobbins, & Plesko, 1992; Dollete, 2020; Flores et al., 2020; Mnisi & Ramoroka, 2020; Govender & Govender, 2020). In this case, taxation mitigates earnings management in an upward form, so that management will record a minimum profit. Tax planning in this study is measured using TRR<sub>it</sub> formula indicator, known as the tax retention rate.

Another factor affecting earnings management is institutional ownership. Institutional ownership is the structure of share ownership of a company which is majority owned by institutions. According to (Suhadak & R, 2015) the existence of institutional ownership in a company makes the management of company resources effective. The institutional ownership in this study is measured using the indicator formula for the total shares owned by the institution to the total outstanding shares.

II. LITERATURE REVIEW

1.1 Agency Theory
Agency theory, also often referred to as principal-agent theory, was first proposed by Holmstrom and Milgrom based on research conducted by Jensen and Meckling. This theory assumes that there are two parties involved in an employment contract; agents or managers and principals or shareholders. The main problem between agent and principal is information problem. When managers in this case have more and more accurate information than shareholders, a situation called information asymmetry arises in this contract. Differences in preferences and goals between principals and agents also contribute to agency problems. The separation between ownership and control results in a form of agency problem where in general each party tries to maximize their respective satisfactions (Diri, 2010). Differences in the intensity of agency problems result in different behavior from management, starting from obedience to selfishness which leads to opportunistic nature involving earnings management (Diri, 2010).

1.2 Earnings Management
Earnings Management is a management intervention in the process of determining earnings which are usually done intentionally to meet personal goals (Subramanyam, 2014). The motivation for doing earnings management is the purpose of bonuses, debt agreement hypothesis, political motivation, taxation motivation, and initial public offering Scott (2015:448)

Methods in estimating the value of accruals in earnings management research have various forms and developments. In this study, a model that is often used in measurement is a modified model of the Jones model proposed by Dechow in 1995.

1.3 Leverage
The leverage ratio shows how much the company needs and how much debt is flooded. The lower the leverage factor, the company has less risk if economic conditions decline. The greater the level of corporate leverage, the greater the amount of debt used, and the greater the business risks faced, especially if economic conditions deteriorate (Sutrisno, 2017, p. 207). There are several ratios that can be used to measure leverage (Sutrisno, 2017). This study uses the ‘Total Debt to Total Asset Ratio (DAR)’ ratio as a proxy for the leverage ratio, with total debt using the interest-bearing debt value.

1.4 Tax Planning
Tax planning according to (Suandy, 2008) the first step in tax management. The steps taken are collecting and researching tax regulations so that the types of tax savings actions can be selected. The mean of tax planning is used to manipulate the tax burden as low as possible by utilizing existing regulations. This tax planning is one of the initial stages to carry out a systematic analysis. In this study, tax planning is measured using the tax retention rate.

1.5 Institutional Ownership
(Jensen and Meckling, 1976) stated that institutional ownership has a very important role in minimizing agency conflict between managers and shareholders. Institutional ownership is considered an effective monitoring mechanism in every decision-making. Because institutional ownership is involved in strategic decisions so it is not easy to believe in the manipulation of financial statements.

III. METHODOLOGY

This research uses descriptive and explanatory methods. The researcher used a descriptive research method by collecting data related to this research, namely Leverage, Tax Planning and Institutional Ownership in BUMN companies listed on the Indonesia Stock Exchange in the period 2015 – 2019. Function the explanatory is used to describe the relationship, influence between Leverage, Tax Planning, and Institutional Ownership of Earnings Management. This study used a sample of 20 state-owned companies listed on the Indonesia Stock Exchange (IDX). The research observation period is in the span of 5 years, namely the 2014-2019 period

3.1 Leverage measurement

This study uses the Total Debt to Total Asset Ratio (DAR) ratio as a proxy for the leverage ratio, with total debt using the interest-bearing debt value.

\[
\text{Interest-bearing Debt} / \text{Assets}
\]

Interest-bearing debt components can be found in financial statements in sections such as bank loans, non-bank financial institution debt, bonds, and others.

3.2 Measurement of tax planning

This study uses the tax planning variable as measured by the tax retention rate

\[
\text{TRR}_{it} = \frac{\text{Net Income}_{it}}{\text{Pretax Income}_{it}}
\]

Tax retention rate measures the effectiveness of tax management in the current year's financial statements.

3.3 Measurement of institutional ownership

The institutional ownership variable is proxied by the number of shares owned by the institution to the total outstanding shares.

\[
\text{KI} = \frac{\Sigma \text{shares held by institutional investors}}{\Sigma \text{total shares outstanding}} \times 100\%
\]

3.4 Earnings management measurement

Earnings management proxied by discretionary accruals for non-bank companies and discretionary loan loss allowances for companies in the financial sector. Discretionary accruals are calculated in step 1) getting the total accruals (TA) value 2) regressing total accruals on sales (R) and fixed assets (PPE) to get the coefficient 3) coefficient used to estimate non-discretionary accruals (NA) 4) discretionary accruals (DA) value obtained from the difference between total accruals and non-discretionary accruals

1. \[ \text{TA}_{it} = \text{NI}_{it} + \text{CFO}_{it} \]

2. \[ \frac{\text{TA}_{it} - \text{NI}_{it}}{\text{Avg}} = \alpha + \beta_1 \frac{\text{ΔR}_{it}}{\text{Avg}} + \beta_2 \frac{\text{PPE}_{it}}{\text{Avg}} + \varepsilon_{it} \]

3. \[ \text{NA}_{it} = \tilde{\alpha} + \tilde{\beta}_1 \frac{\text{ΔR}_{it} - \Delta \text{ΔR}_{it}}{\text{Avg}} + \tilde{\beta}_2 \frac{\text{PPE}_{it}}{\text{Avg}} + \varepsilon_{it} \]

4. \[ \text{DA}_{it} = \frac{\text{TA}_{it}}{\text{Avg}} - \text{NA}_{it} \]
For the financial sector, accruals are calculated from the residual value of the regression results of non-discretionary accruals to the amount of loans (LOAN), non-performing assets (NPA) for the current year, and non-performing assets (NPA) one year ahead

\[ NDA_{it} = \beta_0 + \beta_1 CO_{it} + \beta_2 LOAN_{it} + \beta_3 NPA_{it} + \beta_4 \Delta NPA_{it+1} + \epsilon_{it} \]

**IV. RESULTS AND DISCUSSIONS**

In this research, the statistical calculation process uses the SPSS 25. To test the hypothesis, the researcher used the ordinary least square model which then tested the classical assumptions to ensure the feasibility of the model. After the test is carried out partial testing (t test), simultaneous testing (F test) and finally testing the coefficient of determination. The analysis model in this study were demonstrated by the following equation:

\[ DACC = \alpha + \beta_1 LEV + \beta_2 TRR + \beta_3 KI + \epsilon \]

Caption:

DACC : Discretionary accruals
LEV : Leverage
TRR : Tax Retention Rate
KI : Institutional ownership
\(\alpha\) : constant
\(\epsilon\) : error term

**4.1 Normality Assumption for Residual**

The residual normality test was carried out at SPSS with the Shapiro-Wilk method because the research sample was 100, the criteria for normally distributed residual values were taken from the resulting probability value.

![Table 4.1](image)

**Table 4.1**

Normality Test Results

<table>
<thead>
<tr>
<th>Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>0.089</td>
<td>0.987</td>
</tr>
</tbody>
</table>

Tests of Normality
Kolmogorov-Smirnov\(a\) Shapiro-Wilk\(a\) Lilliefors Significance Correction

Source: SPSS 25 Output

From these results, it is known that the significance value is more than 0.05, which is 0.4955 the residual value follows a normal distribution.

**4.2 Detection of Multicollinearity**

Detection is done by looking at the Variance Inflation Factor (VIF) value of each dependent variable, if the VIF value is less than 10 then there is no symptom of collinearity in the dependent variable. The following are the results of the tests carried out at SPSS

![Table 4.2](image)

**Table 4.2**

Multicollinearity Test Results
From the test results, the VIF value in the Leverage (LEV) is 1.143, the Tax Planning (TRR) variable is 1.080 and the Institutional Ownership (KI) variable is 1.075, so it can be concluded that there is no collinearity of the dependent variable.

4.3 Detection of Autocorrelation

The serial correlation test in this study is to compare the Durbin-Watson d statistic generated from the regression equation with the critical value upper and lower limit or dU and dL. The results of the Durbin-Watson d statistic are displayed as follows in the SPSS program.

Table 4.3

Autocorrelation Test Results

| Source: SPSS 25 Ouput |

From the output display of the SPSS application, it is known that the d statistics value of 1.761 is compared to the Durbin-Watson table with a significance level of 5%, the number of samples is 100 and the number of independent variables is 3, so it is obtained that dU 1.71517 and dL 1.63369, positive autocorrelation testing indicates there is no autocorrelation because the value of DW > dU or 1.761 > 1.71517 and negative autocorrelation does not occur in the regression model because 4-DW > dU or 2.221136 > 1.71517

4.4 Regression Model

The regression method in this study uses a common effect model where each individual observation, namely the company and the time or year of the financial statements are considered the same and free from fixed or random influences.

Table 4.4

Linear Regression Results

| Source: SPSS 25 Ouput |
Thus, the estimation of the linear regression model in this study will use the common effect model, equation becomes:

\[ \text{DACC} = 0.182 + 0.170 \times \text{LEV} + 0.077 \times \text{TRR} - 0.302 \times \text{KI} + 0.033 \]

Where DACC is discretionary accruals obtained from Jones model, LEV is leverage as ratio between interest-bearing debt and total assets, TRR is proxies for tax planning, and KI for institutional ownership.

### 4.5 Hypothesis Testing

#### Table 4.5
Partial Hypothesis Testing Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th><strong>t</strong></th>
<th>Sig</th>
<th>95.0% Confidence Interval for B</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.182</td>
<td>0.033</td>
<td>5.514</td>
<td>0.000</td>
<td>0.117 - 0.248</td>
</tr>
<tr>
<td>LEV</td>
<td>0.170</td>
<td>0.046</td>
<td>0.315</td>
<td>3.484</td>
<td>0.001 - 0.273</td>
</tr>
<tr>
<td>TRR</td>
<td>0.077</td>
<td>0.041</td>
<td>0.164</td>
<td>1.898</td>
<td>0.065 - 0.159</td>
</tr>
<tr>
<td>KI</td>
<td>-0.302</td>
<td>0.069</td>
<td>-0.384</td>
<td>-4.378</td>
<td>0.000 - 0.438</td>
</tr>
</tbody>
</table>

*Dependent Variable: DACC_Bm*

Source: SPSS 25 Output

#### 4.5.1 Relationship between leverage and Earnings Management

In the partial test, the \( p \) value of the LEV is 0.001. In addition, it can also be seen the results of the comparison between \( t \)-statistic and \( t \)-table which shows \( t \)-statistic 3.484 while \( t \)-table obtained a value of 1.984. With \( t \)-statistic \( > \) \( t \)-table or 3.484 \( > \) 1.984, LEV variable has a statistically significant effect on DACC in a positive direction.

Debt covenant explains that debt agreement or leverage is one of the motivations of management in conducting earnings management. Debt covenant predicts that managers want to increase profits and assets to reduce the cost of renegotiating debt contracts when firms need debt covenants. The results of this study are consistent with the debt covenant hypothesis that the value of discretionary accruals will increase along with the increase in leverage.

The finding is in line with Putu Elsa (2019) that leverage has an effect on earnings management, but in a different direction, in this study leverage has a positive meaning that the increased leverage is followed by an increase in discretionary accruals.

#### 4.5.2 Relationship between Tax Planning and Earnings Management

Based on the results, the \( p \) value of the TRR is 0.065. In addition, it can also be seen that the results of the comparison between \( t \)-statistic and \( t \)-table show that \( t \)-statistic is 1.866 and \( t \)-table is 1.984. With \( t \)-statistic \( < \) \( t \)-table, tax planning variable proxied by the tax retention rate does not have a statistically significant effect on earnings management.

Positive accounting theory according to (Scott, 2003) in (Astutik & Mildawati, 2016) the third hypothesis, namely The Political Cost Hypothesis, explains that companies dealing with political costs tend to engineer profit reductions with the aim of minimizing political costs, for example shifting taxes, transferring with burdens, tax from tax sources to other parties. From this explanation, the taxable person or entity may not bear it at all, capitalize, reduce the price of the tax object equal to the amount of tax paid. Manipulating taxpayers' businesses and transactions but still within the taxation rules. Based on the research, it shows different results from the theory that tax planning has no effect on earnings management.

The results of this study are consistent with the research of Fatchan Achyani (2019) and Nurhaj Ishak (2019) that tax planning has no effect on earnings management, in contrast to the results of A.A Gede (2017) that tax planning has a positive effect on earnings management.
4.5.3 Relationship between Institutional Ownership and Earnings Management

Based on the results of the research, KI as proxied by the share of shares owned by institutional investors on the number of shares outstanding has a significant negative effect. This is indicated by the results of the t-test (partial) in the regression model, the $p$ value of the institutional ownership variable is 0.000. In addition, it can also be seen the results of the comparison between t-statistic and t-table which shows t-statistic -4.375 while t-table obtained a value of -1.984 With t-statistic > t-table or 4.375 > 1.984.

The shareholders of a company consist of institutional investors and individual investors. Both types of shareholders use earnings information for decision making, in this case institutional shareholders have higher expertise so that they can better detect earnings management. The investment horizon of institutional investors affects earnings management actions or decisions, short-term institutional investors can influence earnings management carried out by companies in order to obtain stock price appreciation. Meanwhile, long-term investors have a greater influence on the company's earnings management decisions, so that institutional investors act as gate keepers that reduce noise related to earnings management. The results of this study are consistent with the theory that institutional ownership has a negative effect on earnings management.

The results of this study are in line with Fengli Yin (2013) that institutional ownership has a negative effect on DACC, in contrast to Triwantie's research (2017) that institutional ownership has no effect on DACC.

4.6 Simultaneous Test (F-test)

Table 4.6 Simultaneous Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>0.276</td>
<td>3</td>
<td>0.092</td>
<td>14.522</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>0.608</td>
<td>96</td>
<td>0.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.884</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source : SPSS 25 Output

Table 4.6 shows the results of simultaneous hypothesis testing (F-Test) which obtained a simultaneous regression model significance value of 0.000. In addition, the results of the comparison between F-statistic and F-table show F-statistic 14.522 and F table 2.7 so that F count > F table regression model can be used to explain the variability of discretionary accruals (DACC).

4.7 Coefficient of Determination

Table 4.7 $R^2$ for the model

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>0.599</td>
<td>0.312</td>
<td>0.291</td>
<td>0.080</td>
<td>1.761</td>
</tr>
</tbody>
</table>

Source : SPSS 25 Output

From the table it can be explained that the $R^2$ value is 0.312, which means that the variability of DACC values can be explained by leverage (LEV), tax planning (TRR), and institutional ownership (KI) of 31.2% while the rest is 68.8%. explained by other variables outside the study.

V. CONCLUSION

The results of empirical research that the effect of leverage, tax planning and institutional ownership on earnings management simultaneously is only 31.2%, While the remainder is influenced by the other factors. The following conclusions can be drawn regarding the results of the study partially:

1. Independent variable leverage has a significant effect on the positive direction on earnings management of BUMN companies listed on IDX for the 2015-2019 period.
Independent variable tax planning has no significant effect on earnings management of BUMN companies listed on IDX for the 2015-2019 period.

Independent variable institutional owner has a significant effect on the negative direction on earnings management of BUMN companies listed on IDX for the 2015-2019 period.

REFERENCES