The Effect Of Profitability, Cash Holding, And Bonus Plan On The Practice Of Income Smoothing

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ABSTRACT
This study aims to empirically examine whether profitability, cash holding, and bonus plan affect the practice of income smoothing listed in Indonesia Stock Exchange in 2015-2019 period.

The research uses secondary data. Sample used in this research are companies listed in the Indonesia Stock Exchange (IDX) LQ45 index in 20152019 period by using purposive sampling method. There are 25 companies that fulfill the criteria as research sample. This research used quantitative methods. Research variables being used are profitability, cash holding, and bonus plan. The hypothesis test used is logistic regression analysis with binary logit method and using application program Eviews 10.

The result from this research showed that the variables profitability which is proxied by ROA partially has a significant effect on the practice of income smoothing with a negative coefficient and variable cash holding partially has a significant effect on the practice of income smoothing with a positive coefficient. While variable bonus plan partially does not have a significant effect on the practice of income smoothing, simultaneously, the results of this research showed that the variables profitability, cash holding, and bonus plan have a significant effect on the practice of income smoothing.

Keywords: Return on Asset, Cash Holding, Bonus Plan, and Income Smoothing

I. Introduction

The unstable state of an economic conditions require companies to have their own advantages in order to differentiate itself from other companies or rivals. A fierce business competition is also a factor of a country’s economic growth. With the fierce competitions going on between these companies, it requires them to be motivated to maintain or improve their own performance. The company’s performance can be reflected in its financial statements.

A good and an accurate financial reporting is very important. An accurate financial statements will be able to produce financial information that is useful for decision making. One parameter that are used by investors in investing is a profit. Profit is the surplus remaining after total costs are deducted from total revenue in a certain period of time. Profit is often used as a basis for taxation, dividend policy, investment guidelines and decision making and prediction of elements (Harnanto, 2003: 444).

Statement of Financial Accounting Concepts (SFAC) No. 1 states that earnings information or income statement is a major concern in assessing management's performance or accountability and helping the owner or other parties assess the company's earning power in the future. The tendency of investors or outsiders to pay attention to earnings encourages company management to carry out various activities called earnings management or earnings manipulation. One form of earnings management that can be done by management is the practice of income smoothing.

According to Nejad (2013) in Natalie and Astika (2016), a simple definition of income smoothing is a deliberate action taken by managers by using accounting policies to reduce earnings fluctuations. Management tends to take action to increase profits when profits are relatively low and to reduce profits when profits are relatively high. The reason for management's income smoothing is to increase investor confidence, increase a sense of optimism in financial forecasts, job guarantees and rewards to be given, reduce overall corporate liability and increase profitability for shareholders (Syahriana, 2006 in Rahmawati, 2012). The practice of income smoothing causes the users of financial statements to not make the right economic decisions, because information that deviates from the actual conditions associated with the corporate profits.

The concept of income smoothing is motivated by agency theory which is assumed by the owner and management to have the same interest in maximizing the utility of each of the information held, thus creating a conflict of interest called information asymmetry (Widana and Yasa, 2013). According to Mambraku and Basuki (2014) in Dewi and Latrini (2016), in ASEAN countries, Indonesia is at the first level that practices the greatest
income smoothing when compared to Malaysia, Philippines and Thailand. Factors that will be examined in this study are profitability (ROA), cash holding, and bonus plans. This research focuses on the issue of Profitability, cash holding, and bonus plans on the practice of income smoothing in companies listed in the Indonesia Stock Exchange (IDX) LQ45 index with the results of the 2015-2019 financial statements.

The problems addressed in this review are below, based on the context and scope of the above studies:

1. Does Return on Asset affect practice of income smoothing in companies listed in the Indonesia Stock Exchange (IDX) LQ45 index?
2. Does Cash Holding affect practice of income smoothing in companies listed in the Indonesia Stock Exchange (IDX) LQ45 index?
3. Does the Bonus Plan affect practice of income smoothing in companies listed in the Indonesia Stock Exchange (IDX) LQ45 index?
4. Does the effect of Return on Assets, Cash Holding, and Bonus Plan simultaneously on the practice of income smoothing on companies listed in the Indonesia Stock Exchange (IDX) LQ45 index?

Based on the description above, the researchers are interested in doing further with the title “The Effect of Profitability, Cash Holding, and Bonus plans on the Practice of Income Smoothing.”

II. Literature Review

Agency theory

Agency theory is an approach that can describe earnings management concepts related to income smoothing. According to Eisenhard (1989), agency theory is based on three assumptions namely: (a) Assumptions about human nature—Assumptions about human nature emphasize that humans has the nature to be selfish (self interest), has limited rationality (bounded rationality), and do not like risk (risk aversion). (b) Assumptions about organization—The organizational assumption is that there are conflicts between members organization, efficiency as productivity criteria and there is information asymmetry between the principal and the agent. (c) Assumptions about information—The assumption about information is that information is seen as commodity goods traded.

Positive Accounting Theory

Positive accounting theory assumes that managers, holders shares, and other users of financial statements rational and trying to maximize his interests. Watts and Zimmerman (1978) formulated three hypotheses in this theory can be used as a basis for understanding of income smoothing, namely: (a) The Hypothesis Bonus Plan; (b) The Debt / Equity Hypothesis (Debt Covenant Hypothesis); (c) The Political Cost Hypothesis (Size Hypothesis).

Income Smoothing

According to Nejad (2013) in Natalie and Astika (2016), definition simple of income smoothing is a deliberate action carried out by managers using accounting policies to flatten or fluctuate the rate of profit. Refer to that understanding then the fluctuation that happened not only limited on an increase in annual profit, but also a reduction in corporate earnings reporting. Meanwhile, income smoothing according to Ball and Brown (1968) in Rahmawati (2012) is an effort to reduce earnings variability, especially relating to the behavior intended for reduce the existence of an abnormal increase in profit which reported by the company.

Company management that does leveling practices earnings can cause disclosure of earnings in the report finance becomes inadequate which results in investors do not have accurate information regarding earnings, so investors fail to estimate their investment risk.

Profitability

Profitability is a predictable factor affect earnings, because the level of profit is related directly with the object of income smoothing. Level of Profitability itself illustrates the company's ability in make a profit and expressed as a percentage which is used to assess the extent of ability company in generating profits and is wrong one important aspect for consideration by investors or the owner in assessing the performance of a company. On this research the value of profitability is calculated using ROA (Return On Assets) ratio, this ratio is measured by comparing the net income after tax with the total assets owned by the company.

The results of the research by Dewi and Latrini (2016) and Adiwidjaja (2019) show that profitability has a positive and significant effect on income smoothing. While in the research of Dewi and Suryanawa (2019) profitability has no effect on income smoothing.

Cash Holding

According to Mambraku (2014) in Revisnia (2019) cash holding is defined as the company's cash, which is short-term in nature. In this study, cash holding is measured by comparing the amount of cash and cash equivalents owned by the company with the total assets of the company. The existence of cash in the company, allows investors to assess the performance of its managers from their ability to keep the increase in cash in the company remains stable. One of the actions taken to keep cash is stable by making income smoothing. The nature
of cash holding is very liquid which makes cash very easy to be disbursed and transferred, making it easy to hide the improper actions.

The results of Natalie and Astika's (2016) and Revinsia (2019) research show that cash holding has a significant effect on income smoothing but in contrary the results of Puspta's research (2018) which shows that cash holding has no effect on income smoothing.

**Bonus Plan**

Based on the bonus plan hypothesis in theory positive accounting, Management is given the promise to get a bonus in connection with the company’s performance related to the company's profits. So that, company management is motivated to recognize profit a company that should be part of the future, is recognized as a company profit in the current year.

Bonus plan, or bonus compensation will be given to management that fulfilled the target that has been planned by the previous owner. Companies that have bonus compensation, will make management to work as much as possible in order to obtain profits in accordance with existing targets, so that management will get a bonus. The decision is based on the company’s manager’s support to get a bonus based on profits that were reported by the managers. This motivational bonus encourages company managers to practice income smoothing.

Research conducted by Puspita (2018) and Dewi and Suryanawa (2019) shows that bonus plans have a significant effect on income smoothing. In contrast, the study of Conscience Nurani and Dillak (2019) shows that the bonus plan is not significant to income smoothing.

**Research Framework**

![Diagram of Research Framework]

Description:
- **Simultaneous Influence**
- **Partial Influence**
  - **Hypothesis Development**
    - H1: Profitability affects the practice of income smoothing.
    - H2: Cash holding affects the practice of income smoothing.
    - H3: Bonus plan affects the practice of income smoothing.
    - H4: Profitability, Cash Holding, and Bonus Plan simultaneously affect the practice of income smoothing.

**Research Methodology**

Based on the variables studied, this study was designed using an associative research method with a causal relationship through a quantitative approach that is a research procedure carried out by collecting and analyzing data systematically to determine the causal relationship between two or more variables. In this research, associative research with a causal relationship is used to determine the effect of profitability, cash holding, and bonus plans on income smoothing practices in companies listed on the Indonesia Stock Exchange LQ45 index (IDX). Hypothesis test used is logistic regression analysis with binary logit method and using application program Eviews 10.
THE EFFECT OF PROFITABILITY, CASH HOLDING, AND BONUS PLAN....

Variables Operationalization

Dependent variable
The dependent variable is the variable that is affected or which is due to the presence of an independent variable (free) (Sugiyono, 2012: 59). In relation to the problem under study, the dependent variable is income smoothing practice. According to Salno Baridwan (2000) income smoothing (Income Smoothing) is a method used by company management to reduce the variability of the amount of reported earnings to fit the desired target by manipulating earnings through both the accounting method and through transactions.

The dependent variable in this study is income smoothing measured on a nominal scale. The income smoothing action was tested by the Eckel Index (1981). The group of companies that do income smoothing is given a value of 1, while the group of companies that do not do income smoothing is given a value of 0. As for the income smoothing index formula from the Eckel model:

\[
\text{Income Smoothing index} = \frac{CV \Delta S}{CV \Delta I}
\]

Where:
- \(\Delta S\) = changes in sales or changes in income in one period.
- \(\Delta I\) = change in net income in one period.
- \(CV\) = coefficient of variation of the variable i.e. the standard deviation of changes in earnings and changes in sales divided by the expected value of changes in earnings (\(I\)) and changes in sales (\(S\)).

In this research using the value of the original Eckel Index when processing data while for company status using dummy. If \(CV\Delta I > CV\Delta S\), then the company is classified not profit leveler but if \(CV\Delta I < CV\Delta S\), the company is classified as income smoothing more than 1 (IPL > 1).

Changes in profits or changes in sales in this research can be calculated using the following formula:

\[
\Delta I \text{ atau } \Delta S = \frac{(t - t-1)}{t - 1}
\]

Where:
- \(t\) = Current profit or sales period.
- \(t-1\) = earnings or sales for the previous period.

\(CV\Delta I\) or \(CV\Delta S\) can be calculated as follows:

\[
\sqrt{\frac{\sum(\Delta x - \bar{\Delta x})^2}{n-1}} : \bar{\Delta x}
\]

Where:
- \(\Delta x\) = change in net income (\(I\)) or sales (\(S\)) between year \(n\) to year \(n-1\)
- \(\bar{\Delta x}\) = average change in net income (\(I\)) or sales (\(S\)) between years \(n\) to \(n-1\)
- \(n\) = number of years observed

Independent Variables

The independent variable is the variable that explains or affect other variables. The independent variable in this research are the profitability, cash holding, and bonus plan. For each independent variables, the measurements used are:

Profitability
Profitability is a factor that is thought to influence profit, because the rate of profit is directly related to the object income smoothing. The level of profitability itself illustrates company's ability to obtain profits and expressed as a percentage used to assess extent where the company's ability to generate profits as well is one important aspect for consideration by investor or owner in assessing the performance of a company. On this research the value of profitability is calculated using a ratio ROA (Return On Assets), this ratio is measured in a way compares net income after tax with total assets owned by the company.

\[
\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}
\]

Cash Holding
According to Mambraku (2014) in Revisia (2019) cash holding defined as cash owned by the company, which is nature shortterm. Cash holding is also defined as a ratio comparing the amount of cash and cash equivalents held company with the amount of company assets.
**Cash Holding** = \frac{\text{Cash} + \text{Cash equivalent}}{\text{Total Asset}}

**Bonus Plan**

Based on the bonus plan hypothesis in accounting theory positive, Management is given the promise to get a bonus in connection with company performance related to profit company he acquired. Thus, company management motivated to recognize the profit the company should have a part of the future, is recognized as a corporate profit in the current year. The bonus plan calculation is calculated by:

\[ \text{Bonus Plan} = \ln (\text{Total Salary Costs}) \]

**Technical Analysis**

Descriptive statistical analysis is used to determine the characteristics of the sample used and describe the variables in the study. The data to be analyzed is a description of the companies sampled in this study.

Multicollinearity test aims to test whether the regression model found a correlation between the independent variables (independent). To detect multicollinearity can be done by looking at (1) tolerance value and its opponent (2) Variance Inflating Factor (VIF).

Logistic regression analysis to determine the effect of variables independent on the dependent variable. In regression analysis logistic, the independent variable in this research is because of the variable dependent is measured by the dummy variable (nominal). Regression analysis logistics can be written with the following equation:

\[ \ln \left( \frac{p}{1-p} \right) = \alpha + \beta_1 \text{ROA} + \beta_2 \text{CH} + \beta_3 \text{BP} + \varepsilon \]

Where:

- \( \ln \left( \frac{p}{1-p} \right) \): Income Smoothing
- \( \alpha \): Constants
- \( X_1 \): Profitability
- \( X_2 \): Cash Holding
- \( X_3 \): Bonus Plan

\( \varepsilon \): Standard error \( \beta 1, \beta 2, \beta 3 \): Value of the regression coefficient In this study, to test the suitability of the model, the hosmer and lemeshow test were used. The model suitability test is carried out to assess whether the logistic regression model is appropriate or not, so that there are no weaknesses in the conclusions of the model. The decision in the model suitability test is determined based on the value of the goodness of fit as measured by chi-square.

Similar to the coefficient of determination in regression in general, which can be seen from the value of R2 and adjusted R2, in the regression equation using the logit method, the determination of an equation varies based on the tools used. The use of Eviews will produce a determination coefficient of McFadden R2.

Simultaneous significance test in the equation using the logit method can be done by analyzing the statistical Likelihood Ratio (LR) value.

Testing the hypothesis in this study using a partial test. Test partially done to test whether the independent variable partial effect on the dependent variable. The hypothesis is tested by comparing the value of profitability (sig) with level probability (\( \alpha \)). The significance level (\( \alpha \)) used is 5%.

**III. ANALYSIS AND DISCUSSION**

**Descriptive Statistical Analysis**

Table 1 shows the descriptive statistics of each variable used in the study in the form of independent variables, namely profitability (ROA), cash holding (CH) and bonus plans (BP) and the dependent variable, namely income smoothing (IS). The research variables are interpreted as mean, median, maximum, minimum. The number of observations in the study is 125 data and is a combination of 25 LQ45 company data with a time span for 2015-2019. The results of descriptive statistical analysis can be seen in the table below:

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>ROA</th>
<th>CH</th>
<th>BP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.528000</td>
<td>10.58056</td>
<td>0.117955</td>
<td>21.55138</td>
</tr>
<tr>
<td>Median</td>
<td>1.000000</td>
<td>6.623800</td>
<td>0.094300</td>
<td>21.33400</td>
</tr>
<tr>
<td>Maximum</td>
<td>1.000000</td>
<td>67.11950</td>
<td>0.352500</td>
<td>23.91140</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.000000</td>
<td>0.304900</td>
<td>0.002400</td>
<td>17.88540</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.501224</td>
<td>11.24317</td>
<td>0.091787</td>
<td>1.320818</td>
</tr>
<tr>
<td>Observations</td>
<td>125</td>
<td>125</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

*Source: Data processed by E-views 10, 2020*
Table 1 presents the descriptive statistical test regarding the effect of profitability as proxied by ROA, Cash Holding (CH), and Bonus Plan (BP) on income smoothing.

Table 1 shows the minimum value of income smoothing (IS) is 0 and the maximum is 1. The mean and median values are 0.528 and 1. The standard deviation is 0.501. The maximum or highest value on the profitability variable (ROA) is 67.12% and the lowest is 0.31%. The mean and median values were 10.58 and 6.62. The standard deviation value is 11.24317. The minimum or lowest value on the cash holding (CH) variable is 0.3525 and the highest or maximum value is 0.0024. The mean and median values were 0.1180 and 0.0943. The standard deviation is 0.0918. The minimum or lowest value on the free variable bonus plan (BP) is 23,911 and the highest or maximum value is 17.89. The mean and median values were 21.55 and 21.33. The standard deviation is 1.32.

Multicollinearity Test
In this study, the multicollinearity test used Variance Inflation Factor (VIF) with the following decision-making criteria:

Data multicollinearity problem does not occur, if the VIF value < 10.
The data has multicollinearity problems, if the VIF value is > 10.

The multicollinearity test results can be seen in the table below:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4.411019</td>
<td>2873.816</td>
<td>NA</td>
</tr>
<tr>
<td>ROA</td>
<td>0.010141</td>
<td>5.692488</td>
<td>1.218926</td>
</tr>
<tr>
<td>CH</td>
<td>0.008782</td>
<td>8.452507</td>
<td>1.290904</td>
</tr>
<tr>
<td>BP</td>
<td>2.509784</td>
<td>2905.176</td>
<td>1.157492</td>
</tr>
</tbody>
</table>

Source: Data processed by Eviews 10, 2020

The multicollinearity test results in table 2 can be seen in the Centered VIF column table. The VIF value for the independent variable profitability (ROA), cash holding (CH) and bonus plan (BP) <10, so it can be concluded that the three independent variables do not experience multicollinearity.

Logistic Regression Analysis
The analysis used in this research is logistic regression analysis, to test the independent variables, namely profitability, cash holding and bonus plans on the dependent variable, namely income smoothing. The following is the logistic regression output from the Eviews analysis tool:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Std. Error</th>
<th>z-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.605371</td>
<td>6.750208</td>
<td>0.089682</td>
</tr>
<tr>
<td>ROA</td>
<td>-1.658073 0.425196</td>
<td>-3.899554</td>
<td>0.0001</td>
</tr>
<tr>
<td>CH</td>
<td>2.095080</td>
<td>0.411418</td>
<td>5.092344</td>
</tr>
<tr>
<td>BP</td>
<td>2.352541</td>
<td>5.107245</td>
<td>0.460628</td>
</tr>
</tbody>
</table>

Source: Data processed by Eviews 10, 2020

Based on the output above, the logit model equation is obtained as follows:

\[
\ln \left( \frac{P_{it}}{1 - P_{it}} \right) = 0.605371 - 1.658073ROA_{it} + 2.095080CH_{it} \\
+ 2.352541BP_{it} + \varepsilon_{it}
\]
From the regression equation above, for variables that significantly influence it can be explained that:

1) Based on the regression equation above, the regression coefficient for the constant is 0.605371. This indicates that if the independent variable profitability, cash holding and bonus plan is 0 (does not change up or down), then the possibility of income smoothing practice increases by 60.54%.

2) The value of the profitability coefficient which is proxied by ROA is -1.658073 and has a significant negative effect on α = 5%. This shows that each profitability has decreased by one unit, which will result in an increase in the probability of income smoothing practice by 1.658073 times assuming the other independent variables are constant.

3) The value of the cash holding coefficient is 2.095080 and has a significant positive effect on α = 5%. This shows that each cash holding increases by one unit will result in an increase in the probability of income smoothing practice by 2.095080 times assuming the other independent variables are constant.

4) The value of the bonus plan coefficient is 2.352541 and has no effect on α = 5%. This shows that each bonus plan has increased by one unit will result in an increase in the probability of income smoothing practice by 2.352541 times assuming the other independent variables are constant.

**Regression Model Feasibility Test (Hosmer and Lemeshow’s Goodness of Fit Test)**

The test criteria carried out are:

a. If the value is prob. Hosmer and Lemeshow's Goodness of Fit Test α ≥ (0.05), then H0 is accepted This means that the model is acceptable because it matches the observational data.

b. If the value is prob. Hosmer and Lemeshow's Goodness of Fit Test α ≤ (0.05), then Ha is accepted This means that the model cannot be accepted because it does not match the observed data. The results of the Hosmer and Lemeshow's Goodness of Fit Test can be seen in the table below:

<table>
<thead>
<tr>
<th>H-L Statistic</th>
<th>Prob. Chi-Sq(8)</th>
<th>0.9525</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrews Statistic</td>
<td>8.7994</td>
<td>Prob. Chi-Sq(10)</td>
</tr>
</tbody>
</table>

**Source: Data processed by E-vievs 10, 2020**

The results of the goodness of fit test above produce the H-L statistical value on the chi-square probability, which is 0.9525, which means that it is greater than the significance value of 0.05, so Ho is accepted. This means that there is no difference between the model and the data and it can be said that the model is hypothesized to be fit or match the observed data or the model can be accepted. Therefore, it can be concluded that the model used is in accordance with the hosmer and lemeshow's goodness of fit test.

**Determination Coefficient Test (Mc Fadden R² Test)**

McFadden R-squared results can be seen in the following table:

<table>
<thead>
<tr>
<th>McFaddenR-squared</th>
<th>Mean dependent var</th>
<th>0.528000</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.D. dependent var 0.501224</td>
<td>S.E. of regression</td>
<td>0.432636</td>
</tr>
<tr>
<td>Akaike info criterion 1.127943</td>
<td>Sum squared resid</td>
<td>22.64806</td>
</tr>
<tr>
<td>Schwarz criterion 1.218449</td>
<td>Log likelihood</td>
<td>46.49645</td>
</tr>
<tr>
<td>Hannan-Quinn criter. 1.164711</td>
<td>Deviance</td>
<td>132.9929</td>
</tr>
<tr>
<td>Restr. Deviance 172.8946</td>
<td>Restr. log likelihood</td>
<td>86.44729</td>
</tr>
<tr>
<td>LR statistic 39.90168</td>
<td>Avg. log likelihood</td>
<td>-0.531972</td>
</tr>
<tr>
<td>Prob(LR statistic) 0.000000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Data processed by E-vievs 10, 2020**

Based on the table of determination coefficient test results above, it can be interpreted that in this study the McFadden R² value from the estimation results is 0.230786. This shows that the independent variables...
(Profitability, Cash Holding, and Bonus Plan) in the model are able to explain the change in probability of income smoothing practice by 23.08% and the remaining 76.92% is influenced by other variables that are not in the regression model. Other variables that are thought to affect income smoothing outside of the regression model are company size (Adiwidjaja and Tundjung, 2019), financial risk (Puspita, 2018).

Likelihood Ratio Test (LR Test)
The test criteria carried out are:
If the probability (LR) < 5% significance level = 0.05, then Ha is accepted, namely profitability, cash holding and bonus plan simultaneously effect on income smoothing.
If probability (LR) > 5% significance level = 0.05, then H0 is accepted, namely profitability, cash holding and bonus plan simultaneously have no effect on income smoothing. The results of the LR test in this study can be seen in the following table:

<table>
<thead>
<tr>
<th>Tabel 6 LR Statistical Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>McFaddenR-squared</td>
</tr>
<tr>
<td>S.D. dependent var</td>
</tr>
<tr>
<td>Akaike info criterion</td>
</tr>
<tr>
<td>Schwarz criterion</td>
</tr>
<tr>
<td>Hannan-Quinn criter.</td>
</tr>
<tr>
<td>Restr. Deviance</td>
</tr>
</tbody>
</table>

Source: Data processed by E-views 10, 2020

Based on the estimation results of the table above, the value of Prob (LR statistics) is 0.000000 < 0.05. This means that all independent variables significantly explain the dependent variable. There is also a decision taken is to reject H0 and accept Ha, which means that all the independent variables together have a significant relationship to the dependent variable.

Hypothesis Test a. Z Test Statistics (Z Test)
Z test is performed to determine whether the independent variable individually (partially) affects the dependent variable. The test criteria carried out are:
If the value is prob. ≤ α (0.05), then Ha is accepted. This means that there is a significant effect of the independent variables on the dependent variable.
If the prob value ≥ α (0.05), then H0 is accepted. This means that there is no significant effect of the independent variables on the dependent variable. The regression results using the logistic regression model are presented in the following table.

<table>
<thead>
<tr>
<th>Tabel 7 Logistic Regression Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>CH</td>
</tr>
<tr>
<td>BP</td>
</tr>
</tbody>
</table>

Source: Data processed by E-views 10, 2020
Based on the test results in table 7 it can be concluded that the hypothesis testing of each independent variable on the dependent variable is as follows:

a. Hypothesis 1 = (Profitability affects income smoothing)
   Based on the output results above, it can be seen that the probability value of the independent variable profitability is 0.0001. When compared with α = 0.05, then the probability value (0.0001) < α value (0.05), so that a decision can be taken to reject Ho and accept Ha. Meanwhile, the regression coefficient of -1.658073 shows a negative direction. It can be concluded that the profitability variable proxied by ROA has a significant negative effect on income smoothing practices, so the first hypothesis proposed by the author can be accepted.

b. Hypothesis 2 = (Cash holding affects income smoothing)
   The cash holding variable has a probability level of 0.0000 under a significance level of 0.05 (5%). These results prove that Ho is rejected and Ha is accepted. Meanwhile, the regression coefficient of -2.352541 indicates a negative direction. It can be concluded that there is a positive influence between cash holding on income smoothing practices, so the second hypothesis proposed by the author can be accepted.

c. Hypothesis 3 = (Bonus plan affects income smoothing)
   The bonus plan variable has a probability level of 0.6451 above the significance level of 0.05 (5%). These results prove that Ho is accepted and Ha is rejected. Meanwhile, the regression coefficient of 1.658073 shows a negative direction. It can be concluded that the bonus plan which is proxied by log natural of total salary costs has no and positive effect on income smoothing practices, so the third hypothesis proposed by the author cannot be accepted or rejected.

IV. CONCLUSIONS

Based on the analyze and discussion in previous chapter, the author takes the following conclusions as follows:

1. The first hypothesis is that profitability which is proxied by ROA partially has a significant effect on income smoothing practices with a negative coefficient. This means that the lower the profitability, the higher the company to do income smoothing.

2. The second hypothesis is cash holding which is proxied by cash and cash equivalents divided by total assets partially has a significant effect on the practice of income smoothing with a positive coefficient. This means that the higher the cash holding, the higher the company to do income smoothing.

3. The third hypothesis is that the bonus plan which is proxied by the natural log of total assets partially does not have a significant effect on income smoothing practice with a positive coefficient. This means that the bonus plan is not an important factor seen by management to take income smoothing action.

4. The fourth hypothesis is that profitability, cash holding, and bonus plans simultaneously have a significant effect on income smoothing practices. Therefore these variables together can be used as an internal consideration for the company to oversee the income smoothing action.

References


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