

## ANALYSIS OF INCOME SMOOTHING PRACTICE IN BANKING COMPANIES WITH COMPANY SIZE AS A MODERATED VARIABLE

### ANALISIS INCOME SMOOTHING PRACTICE PADA PERUSAHAAN PERBANKAN DENGAN UKURAN PERUSAHAAN SEBAGAI VARIABEL MODERATOR

**YudasTadiusAndiCandra**  
UniversitasMercurBuana Yogyakarta  
[yudastadius@gmail.com](mailto:yudastadius@gmail.com)

#### Abstract

The relatively stable profit level of the company indicates good management performance so it provides a sense of security to investors and creditors in investing their money. The aim of this study is to analyze factors that affect income smoothing practices in Indonesian banking sector. This study used two independent variables, they are financial leverage and profitability while company size as a moderating variable. Income smoothing used as an independent variable. The population used in this study were banking companies listed on the IDX in the period 2015 to 2019. The researchers used purposive sampling to collect data. Data analysis used SPSS program, namely Logistic Regression analysis. The result of logistic regression show that profitability has no positive effect on the probability of the occurrence of income smoothing practice. Financial leverage affects the probability of the occurrence of income smoothing practice. Company size does not moderate the effect of profitability on the probability of the occurrence of income smoothing practice. Company size is able to strengthen the effect of financial leverage on the probability of the occurrence of income smoothing practice.

**Keywords:** income smoothing, profitability, financial leverage, company size

#### Abstrak

Tingkat laba perusahaan yang relatif stabil menunjukkan kinerja manajemen yang baik sehingga memberikan rasa aman kepada investor dan kreditor dalam menginvestasikan uangnya. Penelitian ini bertujuan untuk menganalisis faktor-faktor yang mempengaruhi praktik perataan laba pada sektor perbankan di Indonesia. Penelitian ini menggunakan dua variabel independen yaitu financial leverage dan profitabilitas sedangkan ukuran perusahaan sebagai variabel moderasi. Perataan laba digunakan sebagai variabel dependennya. Populasi yang digunakan dalam penelitian ini adalah perusahaan perbankan yang terdaftar di BEI pada periode 2015 sampai dengan 2019. Peneliti menggunakan metode purposive sampling untuk mengumpulkan data. Analisis data menggunakan program SPSS, yaitu Regresi Logistik. Hasil regresi logistic menunjukkan bahwa profitabilitas tidak berpengaruh positif terhadap probabilitas terjadinya praktik perataan laba. Financial leverage berpengaruh terhadap probabilitas terjadinya praktik perataan laba. Ukuran perusahaan tidak memoderasi pengaruh profitabilitas terhadap probabilitas terjadinya praktik perataan laba. Ukuran perusahaan mampu memperkuat pengaruh financial leverage terhadap probabilitas terjadinya praktik perataan laba.

**Kata Kunci:** perataan laba, profitabilitas, financial leverage, ukuran perusahaan.

## INTRODUCTION

The banking sector is an important part of driving the national economic. Banking companies act as mediators between owners of capital and business capital seekers. As a mediator, banking company is widely used by companies in enlarging the scale of production, marketing scale and to enlarge their profits through loan funds. In addition, banking companies are also used as an investment media. The important role of the financial sector has made the banking industry grow very rapidly. The increasing competition in the financial sector forces management to show their best performance. Management performance can be seen from the profits generated by the company.

Earnings management appears as an impact of agency theory which occurs due to a mismatch of interests between shareholders (principal) and company management (agent) (Utami, Evana, & Yuliansyah, 2020). In agency theory the manager is an agent employed by the owner (principal) to run the company. The manager as the manager of the company has more information than the principal. This is where the information asymmetry arises. In this case, management has more advantages than shareholders about company financial information, because manager (agent) is directly related to thereporting process. This more information is

owned by managers that encourages managers to take actions that benefit them, including actions to increase or decrease profit figures.

Earnings information has a huge influence on users in making decisions, so that investors' attention is often focused on company earnings information (Purwandari, 2019). Company profit is often to be the center of attention on measuring management performance. That is what encourages management to perform deviant behavior such as earning management (Putri, Haryetti, & Fathoni, 2014). Managers often take advantage of investors' attention in these profit figures in order to show their best performance. The way managers usually do is by practicing income smoothing. Thus, investors who only focus on profit figures will judge the company's management as having a good performance.

Earnings management is an action by management to manipulate financial statements by providing incorrect information to users of financial statements for the benefit of managers (Pratiwi & Damayanthi, 2017). Income smoothing is one way to smoothen income and reduce income fluctuations, so that net income appears to be gradually increasing and vice versa (Dewi, 2018). The high fluctuation in earnings that occurs in a company means that the company is unstable and for investors the company has a high enough risk. Companies with relatively stable profit figures will provide a sense of security for investors and creditors in investing their money. Financial statement reports consist of statements of financial position, comprehensive income, reports of changes in equity, cash flow statements, and notes to financial statements (IAI, 2012). In reading financial reports, stakeholders often focus on the comprehensive income statement. The income statement can be used to predict future profits, assess investment risks and see the company's future prospects.

This study tries to examine the effect of profitability and financial leverage which is moderated by company size on the probability of the occurrence of income smoothing practices in banking companies listed on the IDX in 2015 to 2019. The difference between this study and previous research is that this study uses a moderating variable of company size and using the most recent data the researcher could obtain.

### **The Effect of Profitability on Income Smoothing Practices**

Profitability is company ability to earn profits and measure the level of management effectiveness in a certain period (Kasmir, 2011). The income smoothing carried out by several companies is triggered by profitability, that companies tend to have a higher encouragement to maximize their income when the company obtains a high level of profitability compared to companies that obtain a low level of profitability (Hastuti, 2017). Stable profitability will benefit management, such as maintaining job position if performance is measured by the level of profit that can be generated (Eni & Suaryana, 2018). Wulandari & Situmorang (2020) stated that profitability which is proxied by ROA, affected the income smoothing practices. In line with Wulandari, Salim (2014) also found that income smoothing is influenced by profitability. The same thing was also found in the research of Fiscal & Steviany (2015).

Fluctuations in the level of profitability can give signals to investors regarding good or bad news from the company. Investors consider a relatively stable level of profitability as a sign that the company is doing well. Management as the party that has direct access to the financial reporting process wants to ensure that the level of profitability is stable. One of the ways that management can do is income smoothing.

H1: Profitability has a positive effect on the probability of the occurrence of income smoothing practice.

### **The Effect of Financial Leverage on Income Smoothing Practices**

Leverage is the company's effort to use assets from borrowed funds to create returns. The leverage ratio is the ratio to find out how much debt is used to finance the company's operations. The higher the value of the company's leverage ratio, the higher the value of the company's debt to finance its operations. This indicates that the risks that investors and creditors may accept are also getting higher. In other words, investors prefer a low leverage ratio. Management will be motivated to carry out earnings management if the company's leverage ratio is high to convince investors and creditors that the company's management is able to run the company well and is able to generate a stable level of profit. So if the value of the leverage ratio is higher, the higher the probability of management to practice earnings management.

Salim (2014) found that financial leverage partially affects income smoothing practices. Likewise with Alexandri & Anjani (2014) found that financial leverage affects the practice of income smoothing both partially and simultaneously. The same thing was also found in Fiscal & Steviany (2015) which stated that financial leverage increases the probability of income smoothing practice. The higher the company's leverage ratio, the higher the probability of management to practice income smoothing.

H2: Financial Leverage has a positive effect on the probability of the occurrence of income smoothing practice.

### **Company Size Moderates the Effect of Profitability and Financial Leverage on Income Smoothing Practices**

Company size can be seen from the amount of assets that owned by the company. Big companies get more attention from stakeholders than small companies. According to Fiscal & Steviany (2015) company management performance is affected by the size of the company. Large companies will avoid extreme increases in profit because it can affect the increase in taxes that must be paid. Large companies also avoid an extreme decline in profit because it will cause distrust of investors and creditors to the performance of management and consider it to be in a crisis. This is what might make management practice income smoothing (Noviana & Yuyetta, 2011). The management of large companies will avoid extreme profit fluctuations to show stable performance and maintain the good name of the company.

H3: Company size moderates the effect of ROA on the probability of the occurrence of income smoothing practice.

H4: Company size moderates the effect of Financial Leverage on the probability of the occurrence of income smoothing practice.

### **METHOD**

The data population were banking companies that listed on the IDX in the 2015-2019 period. The sampling technique used in this study was purposive sampling with certain criteria. This study tested one categorical dependent variable with 3 metric independent variables. The independent variables used in this study are profitability and financial leverage, then the moderating variable is company size.

Profitability is an indicator of management effectiveness in managing the company to generate profits. Profitability is proxied by Return On Assets (ROA). The greater the ROA value, the greater the level of profit of the company in terms of asset use. ROA can be calculated by the following formula:

$$ROA = \frac{EAT}{Total\ Assets}$$

Explanation:

ROA = Return On Assets

EAT = net profit after tax

Financial leverage is a financial ratio that shows how much the company's assets are used to finance the company's debt. Financial leverage is proxied by the Debt to Equity Ratio (DER). DER can be calculated with the formula:

$$DER = \frac{Total\ Debt}{Total\ Equity}$$

Explanation:

DER = Debt to Equity Ratio

Company size is a scale that describes the size of the company. This scale can be seen from the total capital, total assets, and total sales. The greater the total capital or total assets or total sales, the stronger the company is. In this study, company size is proxied by SIZE which is calculated based on the natural logarithm of total assets. To measure SIZE, the following formula is used:

SIZE = Ln (Total Assets)

Explanation:

SIZE = company size

Ln (Total Assets) = Natural logarithm of total assets

The formula used to measure the independent and moderation variables is shown in table 1 below:

**Table 1. Variable Formula**

Variabel	Formula
Profitability	$EAT$
Financial Leverage	$\frac{Total\ Assets}{Total\ Debt}$
Company Size	$\frac{Total\ Equity}{Ln\ (Total\ Assets)}$

Income smoothing is used as the dependent variable in this study. Just like Gunawan and Anggarapindo's research (2020), the measurement of the dependent variable uses a dummy variable. The value is 0 (zero) if the company does not practice income smoothing and the value is 1 (one) if the company does the income smoothing practice. The dependent variable is measured using the Eckel Index (Eckel, 1981) with the formula:

$$Income\ Smoothing\ Index = \frac{CV\ \Delta I}{CV\ \Delta S}$$

Explanation:

CV  $\Delta I$  = Change in profit in a period

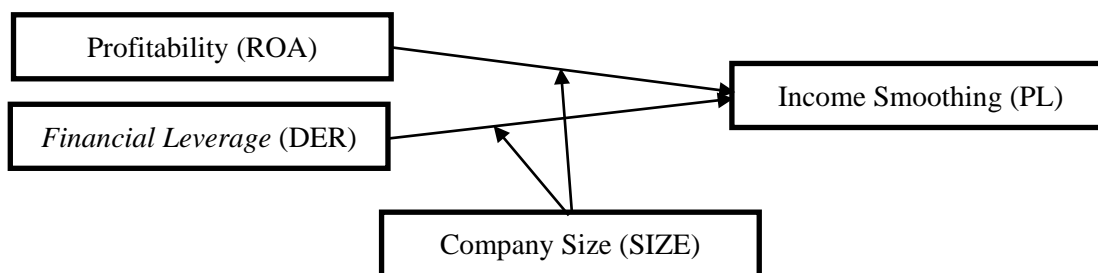
CV  $\Delta S$  = Change in Sales in a period

CV = coefficient of variation of the variable, which is standard deviation divided by the expected value.

If the Eckel index > 1, then the company does not perform income smoothing

If the Eckel index < 1, then the company performs income smoothing.

The research model is as follows:



This study uses logistic regression analysis techniques with moderating variables. Logistic regression can describe about the relationship between dichotomous dependent variable and several independent variables. The purpose of the researcher using the moderating variable is to find out whether other independent variables can strengthen the relationship between independent variable and dependent variable. The program the researcher used to examine the hypothesis was SPSS 23. Data analysis began with assessing the feasibility of the regression model and continued by assessing the overall regression model. After that the researchers tested the coefficient of determination and ended with regression testing to answer the research hypothesis.

## RESULTS AND DISCUSSION

The population in this study were 45 banking companies in Indonesia. By using purposive sampling technique, it was found that 31 banking companies met the criteria to use in this study. The sample selection is described in table 2 below.

**Table 2 Sample Selection Process**

Criteria	Total
Banking companies listed on the IDX	45
Banking companies that do not meet the criteria	(14)
Companies that meet the criteria	31
Samples during 2015-2019	155
<i>Outlier</i>	(10)
<b>The number of samples used in the study</b>	<b>145</b>

### Assessing the Feasibility of a Regression Model

Hosmer and Lemeshow's Test was used to assessing the regression model feasibility. This test aims to determine whether the model used by the researcher is feasible or not. The regression results showed that the chi square value of 5.252 was smaller than the chi square table on df K-1, which was 7.815. In addition, Hosmer and Lemeshow's table shows that the significance value is 0.730 greater than the significance value of 0.05, which means that this study model is fit with the data.

**Table 3 Hosmer and Lemeshow**

Hosmer and Lemeshow Test			
Step	Chi-square	df	Sig.
1	5,252	8	,730

### Assessing the Overall Regression Model

The overall regression model is assessed by observing the -2 log likelihood numbers in Block 0 and Block 1. The results of the regression analysis show that the -2 log likelihood number in block 0 is 200.951 while the -2 log likelihood number in block 1 is 148.146. The decrease in the value of -2 log likelihood shows that the regression model used is good. Next is to compare the -2 log likelihood value in block 1 with the chi square table value at df = N-K-1. The -2 log likelihood value in block 1 is 148.146 smaller than the chi square table value at df = N-K-1 of 168, 613. These results indicate that by including the X variable, the model has met the test requirements.

**Table 4 Iteration History Block 0  
Block 0: Beginning Block**

Iteration History <sup>a,b,c</sup>			
Iteration		-2 Log likelihood	Coefficients
			Constant
Step 0	1	200,951	,041
	2	200,951	,041

a. Constant is included in the model.

b. Initial -2 Log Likelihood: 200,951

c. Estimation terminated at iteration number 2 because parameter estimates changed by less than,001.

**Table 5 Iteration History Block 1  
Block 1: Method = Enter**

Iteration History<sup>a,b,c,d</sup>

Iteration	-2 Log		Coefficients				
	likelihood	Constant	ROA	DER	ROA.SIZE	DER.SIZE	
Step 1	1	161,585	-2,108	27,490	1,341	-,896	-,040
	2	149,736	-3,746	-182,746	3,441	8,200	-,114
	3	148,182	-4,585	-262,317	4,425	11,686	-,148
	4	148,146	-4,735	-275,058	4,587	12,243	-,154
	5	148,146	-4,739	-275,357	4,591	12,256	-,154
	6	148,146	-4,739	-275,357	4,591	12,256	-,154

a. Method: Enter

b. Constant is included in the model.

c. Initial -2 Log Likelihood: 200,951

d. Estimation terminated at iteration number 6 because parameter estimates changed by less than ,001.

### Testing The Coefficient of Determination

The coefficient of determination is indicated by the Nagelkerke R Square value. This coefficient of determination measures how far the ability of the independent variable to explain the dependent variable. Nagelkerke R Square values range from 0 to 1. The closer to 1 means the greater the ability of the independent variable to predict the dependent variable variation. In table 6 the Nagelkerke R Square value is 0.407, which means that the ability of variable X to explain the probability of occurrence of variable Y is 0.407 or 40.7%, while the remaining 59.3% is explained by other variables not used in this study.

**Table 6 Model Summary**

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	148,146 <sup>a</sup>	,305	,407

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than ,001.

### Testing the Regression Coefficient

The regression testing shows that significance level of X1 or ROA is 0.069 greater than  $\alpha$  (5%) so that hypothesis 1 is rejected. This means that profitability, which is proxied by ROA, does not have a positive effect on the profitability of the occurrence of income smoothing practice. This is possible because the ROA value used in this study does not experience high fluctuations. This low level of ROA fluctuation makes managers feel that they do not need to do income smoothing practice because low ROA fluctuations mean that the company is still stable in generating profits. In addition, the change in the perspective of investors on company performance also causes management to be unmotivated to do income smoothing practice. Investors do not only look at the ROA figure in assessing company performance, but there are other factors that are also considered. This is what makes management not motivated to do income smoothing practice. The variable X2 or DER has a significance value of 0.000 which is smaller than  $\alpha$  (5%), which means that hypothesis 2 is accepted. This means that financial leverage has a positive effect on the probability of the occurrence of income smoothing practice. The greater the value of financial leverage, the greater the probability of income smoothing practice, and vice versa. DER is the ratio of debt to company's equity. The higher the value of this ratio, the greater the value of the debt used for the company's operations. Investors assess that the

greater the DER, the greater the investment risk. Management of companies with high financial leverage will compensate by showing a relatively stable profit value, so that investors are still interested in investing in the company. This is what motivates management to do income smoothing practice. The ROA.SIZE value of 0.061 is greater than  $\alpha$  (5%) so that hypothesis 3 is rejected. This means that company size does not moderate the effect of profitability on the probability of the occurrence of income smoothing practice. The company size is unable to strengthen or weaken the relationship between profitability and the probability of income smoothing practice. This may be because the company size is not always directly proportional to the profits obtained by investors. Thus, a large company size does not always have a large profit value received by investors, so that the company size is not able to have an effect either to strengthen or weaken the relationship between profitability and the probability of income smoothing practice. Hypothesis 4 shows something different. The result of logistic regression shows the value of the DER.SIZE variable is 0,000, which means that the hypothesis 4 is accepted. This means that the company size moderates the effect of financial leverage on the probability of the occurrence of income smoothing practice. The bigger the company size, the stronger the relationship between financial leverage and the probability of income smoothing practice, and vice versa. This may be because investors think that the bigger the company, the lower the investment risk and the more stable the resulting profit. This is what makes management practice income smoothing, especially for large companies with large financial leverage. The logistic regression results can be seen in Table 7 below.

**Table 7 Variable in the Equation**

		Variables in the Equation					
		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	ROA	-275,357	151,621	3,298	1	,069	,000
	DER	4,591	1,146	16,034	1	,000	98,550
	ROA.SIZE	12,256	6,536	3,516	1	,061	210285,866
	DER.SIZE	-,154	,042	13,203	1	,000	,857
	Constant	-4,739	,954	24,702	1	,000	,009

a. Variable(s) entered on step 1: ROA, DER, ROA.SIZE, DER.SIZE.

## CONCLUSION

The results of logistic regression carried out with SPSS 23 on a sample of 145 showed that the profitability, which is proxied by Return on Assets (ROA), has no effect on the probability of the occurrence of income smoothing practice. This means the greater the profitability does not increase the chance of income smoothing practice. Financial leverage, which is proxied by the Debt to Equity Ratio, has a positive effect on the probability of the occurrence of income smoothing practice. This means that the greater the DER value, the greater the probability of income smoothing practice. Company size does not moderate the effect of profitability on the probability of the occurrence of income smoothing practice. This means that the company size is unable to strengthen or weaken the effect of profitability on the probability of the occurrence of income smoothing practice. Company size moderates the effect of financial leverage as proxied by Debt to Equity on the probability of the occurrence of income smoothing practice. This means that the company size is able to strengthen the effect of financial leverage on the probability of the occurrence of income smoothing practice. The larger the company size, the stronger the effect of financial leverage on the probability of income smoothing practice.

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