

EFFECT OF PROFITABILITY AND LEVERAGE  
ACTION ALIGNMENT OF EARNINGS (INCOME  
SMOOTHING)  
(A CASE STUDY ON A COMPANY  
MANUFACTURING CONSUMER GOODS  
INDUSTRY SECTOR, FOOD AND BEVERAGE  
SUB-SECTORS LISTED IN INDONESIA STOCK  
EXCHANGE PERIOD 2016-2020)

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### Abstract

*Financial reports are a form of management accountability for industrial performance which will later help investors in decision-making, industry tools used in their work using information about the interests of the company. Agency theory underlies the idea of income smoothing which encourages industrial management to ensure favorable accounting policies. One of the actions that management can try is to apply the practice of income smoothing. The existence of income smoothing practices can provide biased data, thus influencing investor decisions. Explaining, identifying and analyzing the effect of ROA and DER variables on income smoothing practices is the aim of this study and is assisted by using logistic regression in data processing. The population used is the food and beverage sub-sector manufacturing companies from 14 industries listed on the IDX for 4 years from 2016-2020. The independent variables in this study are Return on Assets (ROA) and Debt to Equity Ratio (DER), and the dependent variable in this study is the practice of income smoothing. The analysis method uses logistic regression with the support of the SPSS Statistic application type 21.*

**Keywords:** ROA, DER, Income Smoothing

## Preliminary

Given the large number of competitors in the business world, such as the food and beverage industry, in 2020 there was an increase of 3-4% and provided the largest contribution to the export value of US\$13.73 billion or around Rp203.36 trillion and in the first quarter of 2020, the food and beverage industry became the driving force for the Indonesian economy by donating 36.4% to the Gross Domestic Product (GDP) of manufacturing[1]. With the existing facts, of course, industries in the same or different sectors will compete to maintain their existence in profit. Financial statements are a form of management accountability for industrial performance which will later become a reference for investors in making decisions, thus triggering management to be able to maintain and improve the *image* company's so that investors are interested, on this basis management can carry out unethical behavior in financial statements such as income smoothing. [2, 3] states that income smoothing is carried out by management for a planned business in order to minimize fluctuations in the level of profit.

There are many income smoothing problems in Indonesia, such as what happened to the PT 3 Pilar Sejahtera Food Tbk (AISA) industry which is described in the following table:

Table 1

Eckel Index Data in AISA Companies 2016-2020

Manufacturing Company Consumer Goods Industry Sector Food and Beverage Sub-sector						
No	ISSUER CODE	COMPANY NAME	YEAR	CV AL	CV AS	Indeks Eckel
1	AISA	Tiga Pilar Sejahtera Food Tbk	2016	33.097	-1.257	-26.320
			2017			
			2018			
			2019			
			2020			

Source: Data processed 2021

Table 1.1 explains if the Eckel index AISA gets a result of -26,320 which means that AISA practices income smoothing. This can happen because the AISA income smoothing index yields less than 1 (<1), so the company is considered to be practicing income smoothing. Meanwhile, if the income smoothing index results are greater than 1 (1), then the company is considered not to have practiced income smoothing, besides that OJK (Financial Services Authority) after analyzing financial statements on March 12, 2019, AISA was proven to have inflated income worth Rp662 billion and inflated funds in accounts receivable worth Rp4 trillion and then another inflated Rp329 billion in EBITDA items (earnings before interest, taxes, depreciation and amortization) with these actions as if the company was in good condition, this made investors feel disadvantaged by obtaining data that is not in accordance with the original condition of the company, in addition PT Tiga Pilar Sejahtera Food Tbk (AISA) failed to pay and the maturity of the first sukuk ijarah in 2013 amounted to Rp300 billion, besides the first bonds in 2013 had matured on which is the same as the sukuk ijarah, which is April 5, 2018 with emission value of Rp600 billion. [4, 5].

In addition to the phenomenon that occurred in AISA, apart from the same phenomenon that occurred in several companies in the same sector, it was concluded that the practice of *income smoothing* was still carried out by several companies. It can be attached, Indonesia, especially in manufacturing companies, the practice of *income smoothing* can be measured using the Eckel Index. There are

many reasons for management to practice income distribution. For example, score well for company performance, achieve tax benefits, attract market share, and stabilize profits and finances.

There are factors that influence the practice of *income smoothing*, such as profitability and leverage. The profitability ratio is used to measure the company's ability to earn profits using Return on Assets (ROA) as a measuring tool that compares profit after tax and total assets. In addition to profitability, leverage is included in one of the factors that affect *income smoothing* so that it can be measured using the Debt Equity Ratio (DER). Leverage itself is used to measure the company's ability to meet its financial obligations in the form of long-term and short-term debt.

The research objective of this study is to measure profitability and leverage simultaneously and partially influence income smoothing in the beverage and food sub-sector during the 2016-2020 period.

### Literature Review and Hypothesis Development

Agency theory underlies the notion of *income smoothing* or management and shareholders often have different goals, which creates conflicts such as data asymmetry. There are agency cases caused by the attitude *opportunistic* of agents, namely satisfying individual needs, this causes shareholders to not fully see or take into account the totality of performance and industry prospects so that managers can optimize their *privileges* in implementing income smoothing applications [6, 7].

For [8] income smoothing is an effort used by managers with the aim of distributing profits each period, in this case management can affect the charging of costs, revenue recognition and accelerating and slowing profits in accordance with industry expectations. To determine whether the industry is included in the type of income smoothing application or not, the [9] index is used.

Performing the practice of smoothing profit data by increasing or decreasing the total profit will affect the decisions of potential investors, especially regarding this incident, this can be seen from the financial statements of the industry. Financial statements are an accounting process used to communicate financial information or industrial activities to interested parties [10] while according to [11] it is a component of the financial reporting process consisting of profit and loss statements, balance sheets, statements of financial position, notes and other reports as well as description modules contained in the financial statements.

Profitability is used to measure industry expertise in creating profits, For [12] universally Return On Assets is good if it has a value higher than the value of its assets which has a standard of 5%, by having a profitability value above that standard, so it can be assessed whether the industry has the expertise to create industrial profits based on its assets. Industry profitability can be increased by increasing profits in each period, but if the profit generated is not as expected, it makes management take income smoothing actions [13]. Several previous studies on the profitability aspect, such as that conducted by [14], reported that profitability affected the practice of income distribution, but this was different from [15, 16] who reported that profitability did not affect income smoothing.

Leverage according to [17, 18] is the ratio used to calculate industrial leverage, one of which is the Debt to Equity Ratio which displays the extent to which own capital can guarantee all industrial debt. Investors tend to stay away from industries with high leverage because the greater the risk charged, and creditors generally prefer to reduce leverage, because the lower the debt ratio, the higher the level of industry funding held by shareholders, so the higher the protection for creditors against risk. unpaid debts [19]. There are various previous studies that use leverage in this practice, such as [11] who reported that leverage had a significant effect on

income smoothing, while for [20], they found that financial leverage had no effect on income smoothing.

**Hypothesis**

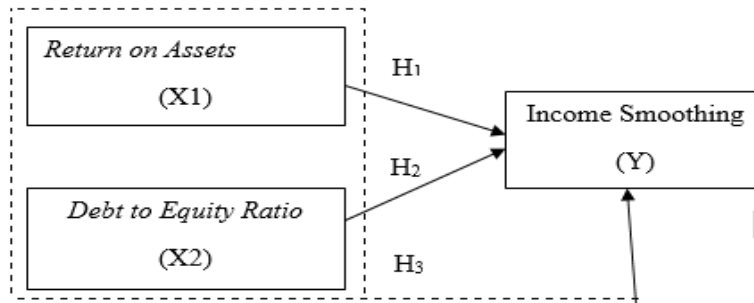


Figure 1. Hypothesis Model

- H<sub>1</sub> : *Return on Assets* (X1) has a large impact on income smoothing practices (Y)
- H<sub>2</sub> : *Debt to Equity Ratio* (X) has a large impact on income smoothing practices (Y)
- H<sub>3</sub> : Collectively *Return on Assets* (X1) and *Debt to Equity Ratio* (X2) have a major impact on income smoothing practices (Y)

**Research Methodology**

**Population and Sample**

Secondary information is the subject of this research which can be obtained from the results of financial statements issued by listed beverage and food companies on the IDX (Indonesian Stock Exchange). The information observation period starts in 2016-2020. The sampling method used purposive sampling. According to [21], the way to determine samples with certain criteria or classifications is the notion of purposive sampling. Companies with IPOs listed on the IDX for the 2016-2020 period are twelve companies, so total samples used (14 x 5 years of observation data = 70 Observation)

**Research Model**

In testing the hypothesis about factors that can affect income smoothing, then logistic regression was performed. According [22] logistic regression analysis using nominal data as the dependent variable that can be described as follows:

Description:  $PL = \alpha + \beta_1 \text{Profitabilitas} + \beta_2 \text{Leverage} + \varepsilon$

PL = Alignment Income       $\beta_1 \beta_2$  = Regression Coefficients  
 $\alpha$  = constant                       $\varepsilon$  = Error Term

**Results And Discussion**

In this chapter begins with exposure of the general description of the research object under study, namely the general description of Profitability and Leverage on *Income Smoothing* during the observation period.

### **Logistic Regression Analysis Test the Overall Fit Model**

The Information used is that there is a decrease in logs that may indicate whether the regression model of the study remains good. The hypothesized model is in a fit condition.

### **Coefficient of Determination (Nagelkerke R Square)**

The aligning the fluctuations of the independent variables (profitability, leverage) can account for 33.1 percent of the variance in the smoothing of variable.

### **Assessing the Feasibility of the Regression Model**

Because the model may anticipate observations or accept the model to fit the observed data. It can be utilized to further asses the model. Furthermore, the model is Fit for Kai Squared  $12.681 > 0.05$  values.

### **Classification The classification**

The regression model's predictive capability to estimate the chance of the company obtaining income smoothing is 71.4 percent.

### **Logistic Regression Model Formed and Hypothesis Testing**

The regression model that is formed based on the estimated parameter values in Variables in The Equation is as follows:  $Y = 0.042 + 0.019 (X1) + 0.010 (X2)$

Speculation testing is done by comparing the critical level (sig) with the mistake rate ( $\alpha$ ) = 5% or 0.05. Based on Table 4.6, the results can be interpreted as follows:

### **Discussion**

#### **Effect of Profitability in Sub-Sector Companies Food and Beverages Listed on the Indonesia Stock Exchange (BEI) Period 2016-2020**

Based on the findings, *return on assets* Food and Beverages sub sector companies listed in Indonesia Stock Exchange (IDX) which consists of 14 companies in the five years 2016-2020 is Return On Assets (ROA). Indicates the level (ROA). Because the value of sig.t (0.479)  $< 0.05$ , there is no significant effect on income distribution. This means that  $H_0$  is accepted and  $H_a$  is rejected, this is different from what was conveyed by Josep et al (2016) if ROA has an effect on *income smoothing* and has an average value of 11.5%. [23] the industry standard ROA is 30%. So from 14 companies during the five years of research the average ROA value of 11.5%  $< 30\%$ , meaning that it has not met the ROA industry standard. The highest value of 60.7% was at AISA (PT. Pilar Sejahtera Food) in 2019, with the lowest at Prasida Aneka Niaga, Tbk in 2020 where the company made a large investment which resulted in the 2019 ROA value dropping very significantly. This makes the company less precise in making investment considerations in producing the maximum rate of return.

#### **Effect In Sub-Sector Companies Food and Beverages Listed on the Indonesia Stock Exchange (BEI) Period 2016-2020**

Based on the findings, the number of *Debt to Equity Ratio (DER)* for Food and Beverage at Manufacturing Companies listed on the Indonesia Stock Exchange (IDX) as many as 14 companies in the five years 2016-2020 are: We have obtained a regression factor of 0.010 with a significant level ( $p$ -value) of  $0.022 < 0.05$ .  $H_0$  is rejected and  $H_a$  is accepted because the significant level is less than = 0.05. This

means that leverage has a big influence on *income smoothing*. This means that income smoothing is triggered by DER. Companies with low levels of debt to equity ratio encourage business owners to practice income distribution. The impact of DER is suspected to be due to not being able to pay off its debts when they fall due, and the tendency to even out their income to meet their debts. DER provides information to investors about the company's ability to use its own capital to guarantee its obligations. The results of this study are supported by the results of research [20] which states that leverage affects income smoothing practices.

### **Income Smoothing in Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period**

The results show that the income distribution of the Food and Beverage industry sub-sector, which is listed on the Indonesia Stock Exchange (IDX) as many as 14 companies for five years from 2016 to 2020, shows profitability and leverage. I see. The variable has obtained a significant level ( $p$  value) of  $0.000 < 0.05$ . The third hypothesis is accepted because the significance level is less than  $= 0.05$ . This means that profitability and leverage have a significant effect on income distribution. The results of this study are supported by the research of [24], which states that Profitability and Leverage affect *Income Smoothing* simultaneously.

## **Conclusions and Suggestions**

### **Conclusion**

Based on the results of research that has been done, the authors conclude as follows:

1. Total *return on assets* of manufacturing companies in the Food and Beverage sub-sector listed on the Indonesia Stock Exchange (IDX) as many as 14 companies in the five years from 2016 to 2020 with an average score of 11.5%. According to [25] the ROA industry standard is known to be 30%. Therefore, the ROA value of 14 companies during the 5-year survey period is  $11.5\% < 30\%$ , which means that it does not meet the industry standard ROA

2. *Debt to equity ratio* Food and Beverage subsector companies listed on the Indonesia Stock Exchange (IDX) on average  $84\% > 60\%$  with good risk of loss.

3. The range of *Income Smoothing* is an average of -1.36 (mean), a maximum of 1.993 and a minimum of -26.32.

Four Profitability does not have a big effect on income smoothing

Five *Leverage* has a big impact on income smoothing

Profitability and *leverage* has a big impact on income smoothing

### **Recommendation**

Based on the conclusions that have been stated above, the author tries to provide suggestions that are expected to provide useful benefits for the company, and further research. As follows:

1. For Investors

Before investing their shares, investors must be careful in assessing and considering the company's financial condition, investors must be able to know and predict whether the company that is used as an investment can generate profits in the future, and see whether the level of interest is there or not. the income from the interest is profitable or not and considering the assets owned by the company, do not let the funds invested become unproductive.

- 2 For companies,

Companies must be able to optimize the use of debt, because debt can increase the company's income smoothing, as well as ROA must be more efficient in the level of investment through consideration of asset investment.

### 3 For Further Research It is

Hoped that the results of this research can be used as a reference and contribution of knowledge to carry out further research, either by using the same variables in other companies or by changing one of the variables or other variables.

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