

## Determinant of Income Smoothing : View of Indonesia Stock Exchange

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**ABSTRACT :** This study aims to determine the impact of company size, cash holding, and return on assets on the implementation of income smoothing in food and beverage manufacturing companies listed on the Indonesian Securities Exchange throughout the period of 2017–2021. The research employed the purposive sampling method for sampling. The research sample consisted of 85 companies. This research uses logistic regression analysis as its analytical tool. The study classifies the practice of income smoothing using the Eckel index, assigning a value of 1 to organizations that engage in income smoothing and a value of 0 to companies that do not engage in income smoothing. The research findings indicate that the company size and its Return On Assets have no impact on the practice of income smoothing. However, cash holding does influence the practice of income smoothing.

**KEYWORDS:** Cash Holding, Company Size, Income Smoothing, Return on Assets

### I. INTRODUCTION

The financial reports of a company are crucial for shareholders when making decisions in the capital market (Nijam and Athambawa, 2018; Arsal, 2021). Financial reports must include relevant as well as appropriate disclosures to ensure clarity and prevent misinterpretation (Arsal, 2021). Financial reports are essential as they provide a comprehensive account of the company's financial performance, changes in equity, cash flows, and existing assets (Muchran, Sari and Amran, 2022; Felicia and Pesudo, 2019; Nirmanggi and Muslih, 2020). The insurance company's financial state and its capacity to fulfill its financial responsibilities can be observed through its financial reports (Muchran, Sari and Amran, 2022; Purnamawati and Hatane, 2020). Financial reports are deemed beneficial when the financial information supplied is pertinent, reliable, comparative, and comprehensible. Interested parties in a company make decisions based on precise and transparent financial reports. The parties concerned, including management, investors, employees, creditors, the government, customers, and society, are categorized based on their respective aims and motives. The main point for investors is to maximize profit, as substantial gains serve as a strong incentive for investment (Arsal, 2021; Pradnyawati, Kepramareni and Maysi, 2021). Profit is a metric used to evaluate the managerial performance of a corporation. Company profit is the outcome obtained from a business activity during certain periods of time (Azizah and Mappayukki, 2023) Income smoothing is a common occurrence where the management acts to mitigate the volatility of reported earnings (Diaw, 2021). The management's implementation of income smoothing will exert a substantial influence on shareholder decisions. Management engages in income smoothing to attain tax advantages, maintain a consistent dividend policy, and establish a favorable perception of management's performance among shareholders (Gunawati and Susanto, 2019; Farinha, Mateus and Soares, 2018; Arizah, et al, 2024). Undoubtedly, the practice of income smoothing leads to the production of reports that are rife with manipulation and may not accurately reflect the true state of the company. Consequently, shareholders may be misled into making false judgments.

### II. HYPOTHESIS DEVELOPMENT

#### 2.1 Size

Company size (CS) is a scale that can be classified as large or small according to various factors, including share market value, total assets, and log size. Basically, company size is divided into 3 categories: small companies, medium companies, and large companies. The determination of company size is based on the total assets of the company. The size of this company can be reflected in the total assets owned by the company. Each company in each industry, both manufacturing groups and financial institutions, has different information regarding total assets that will be published according to the industry average. Thus, if it is connected to positive accounting theory, it can be concluded that the larger the size of the company in an industry, the more complex the financial reporting that will be published will be. So, it can attract management to manipulate profits so that it suits investors' interests and reduces profit fluctuations. The larger the company, the more it chooses to practice income smoothing.

H<sub>1</sub>: The company size has an impact on income smoothing.

## 2.2 Cash Holding

Cash holdings (CH) refer to assets that can be readily converted into other forms of assets. Additionally, cash is highly convenient to store and move at any given moment. Cash's attributes render it the asset with the highest inclination for incorrect utilization and expenditure. Cash holding refers to the surplus cash flow available to managers, which they might utilize to prioritize their own interests over those of the shareholders (Farinha, Mateus and Soares, 2018). Cash holdings serve as the most readily available and easily convertible asset that management utilizes to facilitate the fulfillment of company operational tasks (Diaw, 2021). The company's cash-holding policy is designed to safeguard against any financial deficits that may arise from unforeseen circumstances in the future (Bigelli and Sánchez-Vidal, 2012). Companies with substantial cash flow will have significant agency challenges, prompting managers to become more inclined to engage in income smoothing tactics.

H<sub>2</sub>: Cash holding has an impact on income smoothing

## 2.3 Profitability

Investors and creditors can utilize profitability as a criterion to evaluate the financial health of a company (Arsal, 2021). The relationship between profitability and income smoothing is believed to be direct, as profitability is seen to have a significant impact on the practice of income smoothing. Signal theory explains the importance of disclosing financial report information as well as the steps the company will take to entice investors with hints about the company's future prospects (Arsal and Hamid, 2017). Company profitability is assessed by measuring the company's capacity to generate net profits and evaluating its efficiency in managing assets (Sedovandara and Mahardika, 2023; Alghifari, Solikin, Nugraha, Waspada, Sari and Puspitawati, 2022; Imelda, Riyadi and Lestari, 2022), known as Return on Assets (ROA). Return On Equity reveals the company's expertise in gaining profits from its own capital that has been invested by investors and business owners. The volatility in management's capacity to turn a profit increases with the degree of change in ROA. Investors will feel more confident in a company with a high return on assets, as it might impact decisions about future investments and show that the company is performing well (Kalbuana, Kusiyah, Supriatiningsih, Budiharjo, Budyastuti and Rusdiyanto, 2022). On the other hand, a low ROA suggests the company's revenues have declined. Managers refrain from this volatility in performance assessments as investors want consistent income, which indicates strong company performance, as opposed to income that varies. Consequently, the company will promote the implementation of income smoothing by management. According to (Pradnyawati, Kepramareni and Maysi, 2021) the practice of income smoothing reveals that companies with low levels of profitability have a stronger tendency to implement income smoothing, indicating that profitability has a negative effect on the practice of income smoothing. Prior studies on the impact of profitability on income smoothing which indicate that income smoothing is significantly impacted by profitability as measured by ROA. (Ria Angin and Baktiawan Nusanto, 2020; Wowor et.al, 2021)

H<sub>3</sub>: Return on Asset has an impact on income smoothing.

## III. METHOD

This study adopted a quantitative research methodology and encompasses a total of 72 manufacturing businesses operating in the food and beverage sub-sector that were listed on the Indonesia Stock Exchange (BEI) between the years 2017 to 2021. The researchers used purposive sampling, a sampling approach that was chosen deliberately to ensure the selection of appropriate data sources that align with the variables under study. The criteria employed for sampling are companies engaged in the manufacturing of food and beverages that are listed on the Indonesia Stock Exchange, that publish annual financial reports were measured in Rupiah currency and generated revenue throughout the observation period from 2017 to 2021

**Table 1. List of Research Samples**

Details of the Sample Criteria	Total
Companies engaged in the manufacturing of food and beverages that are listed on the Indonesia Stock Exchange between 2017 - 2021	72
Companies that fail to release uninterrupted and comprehensive annual financial statements throughout the specified research period, specifically from 2017 to 2021	(21)
Companies that omit Rupiah currency in their annual financial reports.	(4)
Companies that incurred losses from 2017 to 2021	(47)
<b>The number of companies that meet the criteria</b>	17
<b>The entirety of the data for the past five years (17x5)</b>	85

#### IV. RESULTS AND DISCUSSION

##### 4.1 Statistical Test

###### 4.1.1 Descriptive Statistical Analysis Test

The company size variable has a maximum value of 28.86 and a minimum value of 13.62. The mean value is 19.8236, while the standard deviation is 4.80236. The mean value exceeds the standard deviation, specifically  $19.8236 > 4.80236$ , indicating that the data exhibits a high degree of both quality and variability. The cash holding variable achieved the maximum value of 0.83. The minimum cash balance is 0.00. Concurrently, the mean value is 0.1658 and the standard deviation is 0.17385. This indicates that the mean value is less than the standard deviation value, specifically  $0.1658 < 0.17385$ . This indicates that the cash holding utilized in this study remains constant. The Return on Assets variable achieved its greatest value at 0.53. The minimum value is 0.00. Concurrently, the mean value is higher than the standard deviation number, specifically  $0.0933 > 0.08800$ . This indicates that the data is in optimal condition and exhibits a wide range of diversity. The income smoothing variable reached a maximum value of 1.00. The minimum value is 0.00. Concurrently, the mean value is higher than the standard deviation value, specifically  $0.5176 > 0.50265$ . This indicates that the data is in excellent form and exhibits a wide range of variation.

**Table 1. Descriptive Statistics**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
CS	85	13,62	28,86	19,8236	4,80236
CH	85	,00	,83	,1658	,17385
ROA	85	,00	,53	,0933	,08800
INCOME SMOOTHING	85	,00	1,00	,5176	,50265
Valid N (listwise)	85				

###### 4.1.2. Logistic Regression Test

The company size variable has a negative coefficient of -0.053. This indicates that as a company grows in size, income smoothing decreases. The coefficient for the cash holding variable is 5.066, indicating a positive relationship. Thus, there is a tendency for income smoothing to grow with cash holdings. The coefficient for the return on assets variable is 3.494, indicating a positive relationship. This implies that a higher return on assets will likely result in an increase in the practice of income smoothing.

**Table 2. Logistic Regression Test**

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup>	CS	-,053	,053	1,003	,317	,949
	CH	5,066	1,908	7,050	,008	158,542
	ROA	3,494	3,074	1,293	,256	32,933
	Constant	,019	1,107	,000	,986	1,019

a. Variable(s) entered on step 1: CS, CH, ROA.

###### 4.1.3. Coefficient of Determination Test

The coefficient of determination test is used to evaluate how much variability exists in the independent variables included in the research model and how much of that variability influences the dependent variable. The Nagelkerke R Square value reflects the coefficient of determination in the logistic regression model. The results of testing the coefficient of determination to determine how far the ability of the independent variables used in the model to influence the dependent variable can be measured. Based on the logistic regression analysis of the data, the Cox and Snell R Square value was 0.151 and the Nagelkerke R Square value was 0.202, indicating that the role or contribution of variable X1 is explained by other factors not studied in this study.

**Table 3. Koefisien Determinasi**

Model Summary			
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	103,795 <sup>a</sup>	,151	,202

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than ,001.

#### 4.1.4 The Result of Classification Matrix

The classification matrix illustrates the regression model's ability to forecast the likelihood of income smoothing in food and beverage sub-sector manufacturing companies listed on the IDX from 2017 to 2021. The classification matrix displays the regression model's ability to reliably figure out the likelihood of a company engaging in income smoothing. The regression model has a prediction accuracy of 56.8% in determining the likelihood of a company engaging in income smoothing tactics. Using the regression model, it was determined that 25 out of 44 samples (56.8%) were predicted to engage in income smoothing techniques.

**Table 4. The Result of Classification Matrix**

Classification Table <sup>a</sup>						
	Observed		Predicted			Percentage Correct
			Income Smoothing			
	Does Not Engage Income Smoothing	Income Smoothing				
Step 1	Income Smoothing	Does Not Engage Income Smoothing	29		12	70,7
		Income Smoothing	19		25	56,8
	Overall Percentage					63,5

A. The Cut Value Is ,500

#### 4.2. Hypotheses testing

Partial hypothesis testing in logistic regression uses the Wald test. This test aimed to assess the impact of company size, cash holding, and return on assets on the income smoothing policy. Partial tests are used to assess the validity of hypotheses H1, H2, and H3. Decision-making is determined by the degree of significance, with the hypothesis being accepted if  $\text{sig} \leq 0.05$ . This indicates that the independent variable has a partial influence on the dependent variable. On the other hand, if the significance level ( $\text{sig}$ ) is  $\geq 0.05$ , then the hypothesis is rejected, indicating that the independent variable has little to no effect on the dependent variable.

The correlation between the independent variable and the dependent variable is evident in the SPSS 25 output results, namely the variables included in the equation. The results of the Wald test, which analyzes the variables in the equation, are presented in the following table:

**Table 5. Partial Test**

Variables in the Equation							
	B	S.E.	Wald	df	Sig.	Exp(B)	
Step 1 <sup>a</sup>	CS	-,053	,053	1,003	1	,317	,949
	CH	5,066	1,908	7,050	1	,008	158,542
	ROA	3,494	3,074	1,293	1	,256	32,933
	Constant	,019	1,107	,000	1	,986	1,019

a. Variable(s) entered on step 1: CS, CH, ROA.

Determining the likelihood of a company engaging in income smoothing tactics. Using the regression model, it was determined that 25 out of 44 samples (56.8%) were predicted to engage in income smoothing techniques. The regression model's predictive power to predict the possibility of companies not smoothing profits is 70.7%, which means that using the regression model, 29 samples of companies (70.7%) are predicted not to smooth their revenues out of a total of 41 samples of companies that do not engage in income smoothing. Partial hypothesis testing in logistic regression uses the Wald test. This test aimed to assess the impact of company size, cash holding, and return on assets on the income smoothing policy. Partial tests are used to assess the validity of hypotheses H1, H2, and H3. Decision-making is determined by the degree of significance, with the hypothesis being accepted if  $\text{sig} \leq 0.05$ . This indicates that the independent variable has a partial influence on the dependent variable. On the other hand, if the significance level ( $\text{sig}$ ) is  $\geq 0.05$ , then the hypothesis is rejected, indicating that the independent variable has little to no effect on the dependent variable.

#### 4.2.1 The Impact of Company Size on Income Smoothing

The findings of this research suggest that the size of a company does not influence its use of income smoothing practices. According to agency theory, individuals have their own interests, which can lead to conflicts of interest. This theory suggests that managers need to gain the trust of investors by ensuring that their activities align with the investors' interests. Previous studies have found that company size does not have a significant impact on income smoothing. The findings of this study indicate that big companies exhibit more intricate operational processes in contrast to smaller companies, hence increasing the likelihood of engaging in income smoothing.

#### 4.2.2 The Impact of Cash Holding on Income Smoothing

The findings of this research suggest that the level of cash holding has an impact on the tendency to engage in income smoothing. Greater cash ownership (Cash Holding) increases the company's ability to engage in income-soothing activities. High cash holdings signify a substantial sum of money available for financing company operations or other financial purposes.

In addition, retaining excessive cash will potentially adversely affect the company by depriving it of opportunities to generate revenue or profits. Excessive and unproductive cash investments can diminish revenue streams, hence impacting the company's profitability. This results in the company missing out on investment possibilities and potential returns. Managers are more likely to employ accounting methods to manipulate profits and make them appear more consistent when they have a larger amount of cash on hand. According to agency theory, management will select policies that ensure the ongoing functioning of the company and achieve the required profits. The divergence in interests between the principal and the manager leads to the accumulation of significant cash holdings. The principal desires to receive cash in the form of dividends, whereas the manager tends to exploit opportunities by retaining or utilizing the cash for policies that serve their own interests, potentially disregarding the principal's concerns.

The findings of this research align with the research conducted (Nirmanggi and Muslih, 2020) which asserts that cash holding has a significant impact on income smoothing. Thus, the more the cash holding in the company, the greater the income smoothing carried out by the company.

#### 4.2.3 The Impact of Return on Assets on Income Smoothing

The findings of this study suggest that there is no correlation between Return On Assets and the use of income smoothing practices. This happened due to the variable's greater focus on sales volume and cost efficiency. As a result, the company's revenues from sales are primarily allocated towards debt repayment rather than capital expansion. Additionally, investors tend to disregard sales information to a significant extent, leading to a lack of motivation for management to engage in income smoothing through return on assets.

According to Agency Theory, each individual has their own interests, which can lead to conflicts of interest. This theory suggests that managers should conduct themselves in a way that ensures investors trust them and do not question their activities. The findings of this study align with previous studies undertaken (Pradnyawati, Kepramareni and Maysi, 2021) which concluded that there is no relationship between Return On Assets and Income Smoothing. This research shows that investors and the general public have a stronger preference for companies that generate higher net profits at a given level of sales. Consequently, this preference may incentivize companies to engage in inappropriate income smoothing practices, as the magnitude of a company's net profit may not accurately reflect its actual condition. For instance, income smoothing can also lead to higher profits.

## V. CONCLUSION

The practice of income smoothing is not influenced by company size since investors typically do not take into account the return or risk associated with the company's asset size. As a result, management is not incentivized to engage in income smoothing based on these criteria. The presence of substantial cash holdings in a company has a notable impact on the implementation of income-soothing strategies. The abundance of cash holdings is a strong incentive for management to enhance their performance in order to satisfy shareholders. Furthermore, cash holdings are highly manageable for managers, thereby increasing the likelihood of engaging in income-smoothing practices. Return on assets has no influence on income smoothing since a company's high profitability has the potential to become increasingly in the public spotlight; thus, management may attempt not to take actions that risk the company's credibility.

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