

Determinants of Income Smoothing Practice in Indonesian Manufacturing Companies

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ABSTRACT

Income is a highly informative account that stakeholders can use to evaluate a company's performance. A positive signal will be generated if profit levels remain consistent; consequently, management frequently endeavors to present earnings that are consistent. The primary aim of this study was to gather empirical data regarding the impact of company size, financial leverage, profitability, cash holding, and firm value on the implementation of income smoothing practices. The sampling technique used was purposive sampling while the data analysis method utilized was logistic regression. The sample that passed the criteria was 47 companies during the period from 2017 to 2020. Income smoothing practices was indicated using the Eckerle index. The results obtained show that only firm size and firm value had a significant effect on income smoothing. Based on data analysis, it was found that management tends to flatten earnings on account items that require consideration in calculations such as impairment reserves and bad debts. This study deepens prior results with explanations on what smoothing actions were carried out on which accounts in the financial statements

Keywords: Cash Holding, Firm Value, Income Smoothing, Leverage, Size, Profitability

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INTRODUCTION

The economic condition of Indonesia in a certain period can be known through the Gross Domestic Product (GDP) data. Indonesia's GDP increased continuously from 2017 to 2019 but declined in 2020 due to the impact of the zcovid pandemic (Badan Pusat Statistik Indonesia, 2022). The manufacturing industry sector plays an essential role in the wheels of the Indonesian economy, as evidenced by the consistency of its most significant contribution to the national's GDP even during the pandemic. This was supported by data from each industry as shown below:

Table 1: GDP's Distribution Based on Industry 2017-2020

No.	Lapangan Usaha	2017	2018	2019	2020
1	Agriculture, Forestry & Fishery	13.16%	12.81%	12.71%	13.70%
2	Maining & Excavation	7.58%	8.08%	7.26%	6.44%
3	Manufacturing	20.16%	19.86%	19.70%	19.87%
4	Electricity & Gas	1.19%	1.19%	1.17%	1.16%
5	Water Supply, Waste Management & Recycling	0.07%	0.07%	0.07%	0.07%
6	Construction	10.38%	10.53%	10.75%	10.71%
7	Wholesale & Retail Trade and Automotive	13.02%	13.02%	13.01%	12.92%
8	Transportation & Warehousing	5.41%	5.38%	5.57%	4.47%
9	Accomodation and Food & Beverage	2.85%	2.78%	2.78%	2.55%
10	Information & Communication	3.78%	3.77%	3.96%	4.51%
11	Financial Services & Insurance	4.20%	4.15%	4.24%	4.51%
12	Real Estate	2.81%	2.74%	2.78%	2.94%
13	Company Service	1.75%	1.80%	1.92%	1.91%
14	Government Administration, Defence & Social Security	3.67%	3.65%	3.61%	3.77%
15	Education	3.29%	3.25%	3.30%	3.56%
16	Health & Social Services	1.07%	1.07%	1.10%	1.30%
17	Others Services	1.76%	1.81%	1.95%	1.96%

Source: (Badan Pusat Statistik Indonesia. 2022)

Table 1 shows that the manufacturing industry constituted the largest contribution to Indonesia's GDP from 2017 to 2020. with an average 19.89%. Manufacturing was also the industry with the most companies listed on the Indonesian Stock Exchange (IDX). The number of this industry sector also grew every year.

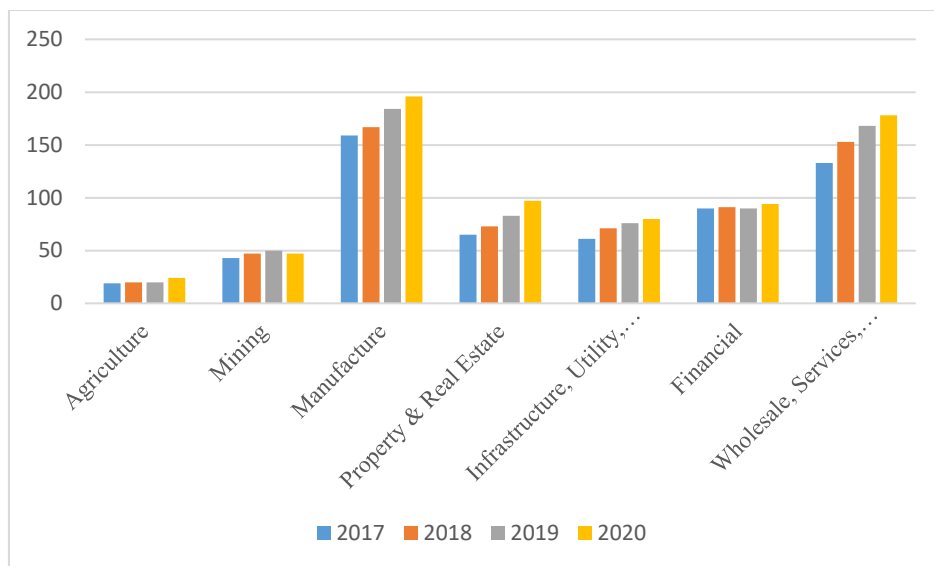


Figure 1: The Number of Listed Companies by Sector for 2017 - 2020

Source: (IDX Data Services Division, 2020)

The high number of listed companies also indicate a high investment activities on it. One of the critical information used to determine investment decisions is the financial reports which contain information about companies' profit which is generally used to measure company performance. Profit can be used to assess the performance of company management and estimate investment risks and future profit probability (Suryanawa, 2019). The market considers that the more fluctuate a company's income is the more risks the firm is exposed to which also could increase the risk of bankruptcy in the future (Trueman & Titman, 1988). These things encourage companies to manage earnings so that the profit reported looks stable every year. This kind of practice is categorized as income smoothing. Income smoothing practices can decrease the quality of financial statements (Oyeyemi Ogundajo et al., 2021).

Income smoothing is a pattern of earnings management that is often carried out by management. Income smoothing is an attempt to flatten the profit reported from one period to the next by determining the timing of recognition of income and expenses. The Eckel Index was used to measure income smoothing in this study. The Eckel Index is calculated by comparing the coefficient of variation in profits to the coefficient of variance in sales. Companies are indicated to do income smoothing if the deviation from changes in sales is greater than the deviation from changes in profit so that the Eckel Index results are <1 (Yang et al., 2012). The dependent variable in this research used a dummy variable using Category 1 for companies that did income smoothing and Category 0 for companies that did not perform income smoothing.

Income smoothing is necessary to be researched because it provides benefits for the company. By doing income smoothing, the profit generated by the company will be stable so that the tax burden paid each year will also be stable. Stable profit

can make it easier for companies to predict future strategies and earnings. In addition, stable profit also provides confidence and security for creditors to provide loans for the companies. Intention to attract investors also motivates companies to smooth their income because a more stable company's income is associated with lower investment risk which can affect auditor opinion (Chang et al., 2021). The company also does income smoothing to avoid requests for a surge in salary increases by workers. Stable earnings show that management can manage the company on a regular basis so that the company can maintain cooperation with partners, as well as the opportunity to get new projects. But, when the company has a supply chain partner with high corporate social responsibility (CSR), the tendency to smooth the income will be avoided (Chen et al., 2019).

The first factor that influences income smoothing is company size. According to Putri and Budiasih (2018) company size is a scale to determine the size of a company seen from various ways, such as total assets, stock market value, and others. The larger the company's size, the more the number of assets owned by the company. Companies with a large number of current assets in the form of inventory should be able to generate increased sales to increase profit. When the company predicts that its profit will increase significantly in a period, the company can do income smoothing by increasing the cost of goods sold through efforts to use the Weighted Average Cost method in calculating inventory which will result in a more significant calculation of the cost of goods sold than the First In-First Out method during inflationary conditions. Thus, the increase in the cost of goods sold can reduce a significant increase in profit so that the company's profit does not fluctuate. These conditions cause the Eckel Index value to be less than 1 and the company is indicated to have done income smoothing. Therefore, the larger the size of the company, the more likely the company is to do income smoothing. The results of previous research conducted by Yadnyana (2018) concluded that company size had a positive effect on income smoothing.

The second factor that is thought to have an influence on income smoothing is financial leverage. According to Ayunika and Yadnyana (2018), "Financial leverage shows the extent to which company assets have been financed by the use of debt". In this research financial leverage was proxied by the Debt to Total Assets (DTA) ratio, which measured the percentage of total assets financed by creditors. The higher a company's DTA, the greater the amount of company debt used as a source of funding to acquire assets. When the company predicts that its profit will increase significantly in a period it can do income smoothing by choosing debt payments with longer maturities. This is because debts with a long maturity will incur a more significant interest expense than debts with a short maturity. Thus, the increase in interest expense can reduce a significant increase in profit so that the company's profit does not fluctuate. Therefore, it can be concluded that the larger companies are more likely to do income smoothing. The results of previous research conducted by Yadnyana, (2018) concluded that financial leverage had a positive effect on income smoothing, while other research concluded that financial leverage had no effect on income smoothing (Suhartono & Hendraswari, 2020; Thoharo et al., 2021).

The third factor that is thought to have an influence on income smoothing is profitability. In this research profitability was proxied by the Net Profit Margin (NPM) ratio. Profit margin is a measure of the percentage of each sales currency that generates net profit. The higher a company's NPM, the greater the company's profit which is generated through sales. An increase in sales from credit sales will result in an increase in receivables. An increase in receivables causes an increase in uncollectible accounts, so that the company must record an allowance for bad debts. When the company predicts that its profit will increase significantly in a period, it can do income smoothing by increasing the percentage of estimated allowance for bad debts. This is because an increase in the percentage of the estimated allowance for bad debts will cause an increase in the allowance for bad debts. Thus, an increase in the allowance for bad debts can reduce a significant increase in profit so that the company's profit does not fluctuate. Therefore, the higher a company's NPM, the more likely it is to do income smoothing. The results of previous research concluded that profitability had a significant effect on income smoothing (Adriani et al., 2018; Pratiwi and Handayani, 2014), while the results of research conducted by Amalia Haniftian & Dillak (2020) concluded that profitability had no effect on income smoothing.

The fourth factor that is thought to have an influence on income smoothing is cash holding. According to Inayah & Izzaty (2021), cash holding is cash available in a company that is used for investment in the form of physical assets and distributed to investors". Companies can use cash and cash equivalents in large quantities to purchase large quantities of raw material inventories. Companies can use this raw material inventory to produce more inventory for sale to generate increased sales and profit. When the company predicts that its profit will increase significantly in a period, it can do income smoothing by increasing inventory storage costs. Inventory storage costs are costs incurred by the company as a result of the company storing inventory. Companies can increase inventory holding costs by renting new warehouses to store more inventory. However storing inventory in large quantities can also incur costs for inventory decline due to inventory becoming obsolete. Thus, the increase in inventory storage costs can reduce a significant increase in profit so that the company's profit does not fluctuate. Therefore, it can be concluded that the higher company's cash holding, it is more likely to do income smoothing. The results of previous research conducted by Pinatih, Ni Made Ayu and Astika (2021) concluded that cash holding had a positive effect on income smoothing, while the results of research conducted by Putri and Budiasih (2018) concluded that cash holding had no effect on income smoothing.

The fifth factor that is thought to have an influence on income smoothing is firm value. The firm value represents the company's ability to generate a return for their shareholders in the future (Eforis et al., 2021) and can also represent an investor's perception of the company's success in the future which reflect in their share value (Wardhani et al., 2022). Firm value is also associated with companies' ability to sustain because it is related with obtaining capital potency (Firmansyah et al., 2021). In this research, firm value was proxied by the Price Earnings Ratio (PER). PER is the ratio used to measure the market price per common share to earnings per share.

The market value of the company's stock price is high because the company is considered capable of maintaining the company's performance in generating stable profit so as to increase investor confidence regarding dividend distribution. The higher profit will increase a company's obligation to pay dividends. When the company predicts that its profit will increase significantly in a period, income smoothing strategy is applied by conducting research and development for launching new products or expanding market share. This research and development activity causes the company to be considered capable of developing its business. However, research and development activities incur research and development expenses which can reduce a significant increase in profit so that the company's profit does not fluctuate and can reduce fluctuations in the increase in dividend distribution by the company. Therefore, it can be concluded that the higher the value of the company, it is more likely to do income smoothing. The results of previous research conducted by Pradipta and Susanto (2019) concluded that firm value had a positive effect on income smoothing, while the results of research conducted by Gunawan & Hardjunanto (2020) concluded that firm value had no effect on income smoothing.

Based on previous research and concept, the research questions for this study was as follows:

1. Does company size have a positive effect on income smoothing?
2. Does Debt to Total Assets (DTA) ratio have a positive effect on income smoothing?
3. Does Net Profit Margin (NPM) ratio have a positive effect on income smoothing?
4. Does cash holding have a positive effect on income smoothing?
5. Does Price Earning Ratio (PER) have a positive effect on income smoothing?

LITERATURE REVIEW

Income Smoothing

Income smoothing is an attempt to flatten the amount of profit reported from one period to the next by adjusting the timing of income and cost recognition. Income smoothing is frequently used to make it easier to obtain financing from creditors and attract investors. Management does income smoothing because they want to get economic and psychological benefits, namely reducing the amount of tax that must be paid by the company, increasing investor confidence in the company because stable profit will support the stable dividend policy, reducing the possibility of requests for wage increases by workers, and assisting management in predicting future profit. There are two types of income smoothing, namely (1) naturally smooth is income smoothing that occurs as a result of the process of generating profit inherently so as to produce an even flow of profit; (2) intentionally being smoothed by management is a smoothing of income that is intentional and is influenced by management actions. Intentionally being smoothed by management is divided into two types, namely (1) real smoothing namely income smoothing that occurs when

management takes action to arrange economic events so as to produce an even flow of profit; (2) artificial smoothing, namely income smoothing by applying accounting procedures to transfer costs and/or income from one period to another (Eckel, 1981).

Firm Size

Company size is a scale to determine how big or small a company is viewed from various ways namely total assets stock market value and others. The size of a company can be ascertained by examining its total assets. A larger number of assets indicates a more favorable performance in terms of generating funds to fulfill the company's debt obligations. Large companies are more likely to practice income smoothing than small companies because large companies are considered to have broader prospects for developing their business by having large total assets and it is easier to get funding from creditors to increase company capital (Yunengsih et al., 2018). Large companies are expected to avoid too drastic profit fluctuations because a drastic profit increase will cause an increase in taxes. Conversely a drastic decrease in profit will cause the impression or value of the company to become unfavourable (Yadnyana, 2018). This behaviour is in line with the Positive Accounting Theory. Previous research conducted by Indrawan and Damayanthi, (2020) also found that firm size had a negative significant correlation toward income smoothing. The first hypothesis was formulated as follows:

Ha₁: Company size has a positive effect on income smoothing.

Leverage

The leverage ratio is a ratio that describes a company's ability to fulfill all of its obligations. Financial leverage in this research was proxied by the Debt to Total Assets (DTA) ratio. The DTA ratio measures the percentage of total assets financed by creditors. The greater the leverage ratio the higher the debt of a company to finance its assets (Christella and Osesoga, 2019). If the financial leverage of a is high it will tend to practice income smoothing because the company tries to avoid debt agreement contracts; namely, the company tries to keep the leverage value not above 1 or to keep the profitability value stable. In addition, if the profit obtained is relatively stable between periods the creditor's confidence in the company's ability to meet obligations in paying off its debts will increase (Putri & Budiasih, 2018). Debt ratio tend to increase in a company with high profitability in order to utilize interest expense as tax reduction which can generate a smooth income (Falistiani Putri, ., and Suryarini, 2017). This behaviour in line with the Positive Accounting Theory and supported by previous research conducted by Indrawan and Damayanthi (2020) and Suwaldiman & Lubis (2023). The second hypothesis was formulated as follows:

Ha₂: Financial leverage proxied by Debt to Total Assets (DTA) has a positive effect on income smoothing.

Profitability

Profitability ratios measure the level of success or failure of a particular company or division for a certain period of time. Profitability in this research was proxied by the Net Profit Margin (NPM) ratio. NPM is a measurement of the portion of each sales currency that results in net profit. The higher NPM ratio shows the higher ability of the company to earn a profit. When viewed from a profit perspective, companies with stable profits can be used as the basis that managers have good performance by shareholders and vice versa; fluctuating profits raise concern for management because investors can judge company performance that is less than optimal (Nugraheni, Arminda Quarista & Sulistyawati, 2018). By carrying out income smoothing, company profit can be considered stable by shareholders, and management can maximize their own prosperity, namely receiving compensation and maintaining their position in the company (Sufiyati, 2019). This action is consistent with the concepts of the Positive Accounting Theory. Previous research conducted by Sanjaya & Murwaningsari (2023) and Suwaldiman & Lubis (2023) also found that profitability had significant impact on income smoothing. The third hypothesis was formulated as follows:

Ha₃: Profitability proxied by the ratio of Net Profit Margin (NPM) has a positive effect on income smoothing.

Cash Holding

Cash holding is cash available in a company that is used for investment in physical assets and distributed to investors. If a company saves too much cash, it will decrease efficiency because cash becomes unproductive and can disrupt the company's liquidity. On the other hand if there is too little cash available in a company, it will result insufficient in funds to do operational activities and to pay off debts, which will disrupt a company's liquidity (Putri & Budiasih, 2018). The availability of cash in a company will increase the practice of income smoothing (Putri & Budiasih, 2018). Shareholders expect the availability of cash to be distributed in the form of dividends, while managers want to hold cash for certain project needs and for their personal interests (Dewi and Latrini, 2016). This behaviour is in line with the Positive Accounting Theory and supported by previous research conducted by Sanjaya and Murwaningsari (2023) that stated that cash holding had significant influence toward income smoothing so the fourth hypothesis was formulated as follows:

Ha₄: Cash holding has a positive effect on income smoothing.

Firm Value

As an indicator of company performance measurement, firm value must provide accurate predictions because it dramatically influences investment decisions (Eforis, et al., 2021). Management practice through smoothing the income limits the investors' ability to assess company performance and results in inaccurate separation of low-rated and high-rated firms (Abogun et al., 2021). Firm value in this research was

proxied by the Price Earnings Ratio (PER), PER measured the relationship between the market price per share and earnings per share. PER reflects investors' estimation of a company's future profit (Weygandt. et al., 2019). Higher PER indicates that investors anticipate high dividend growth, that stock risk is low and that investors are content with high income (Sunartiyo, 2018). Companies with a high market value are more likely to engage in income averaging because they are more likely to maintain a consistent profit in order to keep their market value high and attract more investors (Suranta and Merdistuti, 2004 in Lahaya 2017). This behaviour is in line with the Positive Accounting Theory, so the fifth hypothesis was formulated as follows:

Ha₅: Firm value proxied by Price Earnings Ratio (PER) has a positive effect on income smoothing.

The model used in this paper was:

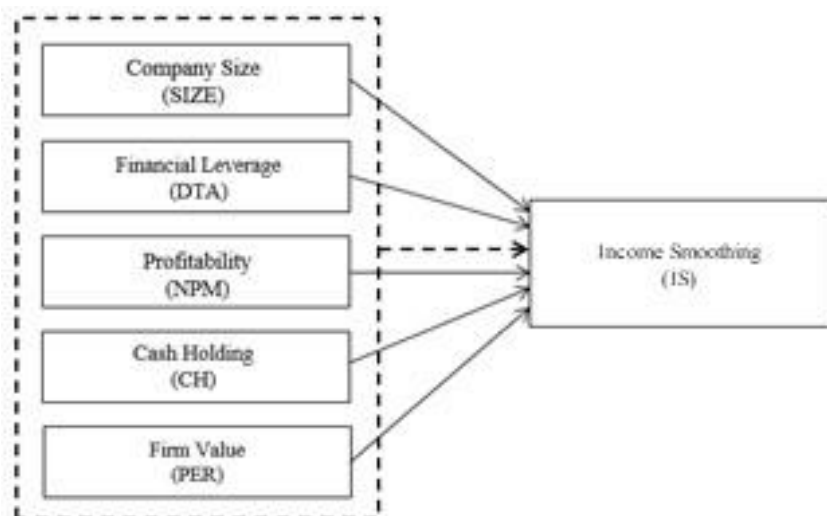


Figure 2. Research Model

METHODOLOGY

The research objects were Indonesian Stock Exchange (IDX)-listed manufacturing companies from 2017 to 2020. Data used was secondary data gathered from financial reports downloaded from IDX's official website and stock price data obtained from the Yahoo Finance website. The Purposive sampling method was used in this study with the following criteria:

No.	Sample Criteria	Number of Companies
1	Manufacturing companies listed on the Indonesian Stock Exchange consecutively during the 2017-2020 period	153

2	Conduct an Initial Public Offering (IPO) on the Indonesian Stock Exchange before 1 January 2017	141
3	Companies whose shares had never been suspended by the Indonesian Stock Exchange consecutively during the 2017-2020 period	114
4	Publish sequentially audited financial reports by independent auditors for the 2017-2020 term	113
5	Publish consecutive annual financial reports as of December 31 for the years 2015-2020	110
6	Present financial reports in Rupiah currency consecutively for the 2015-2020 period	88
7	During the period from 2017 to 2020 the company did not conduct a share split or reverse share split consecutively	82
8	Report profit consecutively during the 2015-2020 period	47
	Companies used as samples	47

Table 2. Details of Research Sampling

This study's dependent variable was income smoothing as measured by the Eckel Index. Score 1 was given if the Eckel Index value was less than 1 which meant that companies indicated to do income smoothing with the Eckel's index which was formulated as follows:

$$Eckel\ Index = \frac{Coefficient\ Variation\ \Delta Income}{Coefficient\ Variation\ \Delta Sales} \quad (1)$$

$$CV\ \Delta Income\ and\ CV\ \Delta Sales = \sqrt{\frac{\sum(\Delta x - \Delta X)^2}{n-1}} : \Delta X \quad (2)$$

where:

- Δx : Change in profit or sales between years n and n-1
- ΔX : Average change in profit or sales between years n and n-1
- n : The number of years researched

The independent variable used in this research was company size which was calculated by the natural logarithm of total assets. The other was financial leverage measured by Debt to Total Assets (DTA) ratio. DTA was calculated from divided total liabilities to total assets. Profitability measures by Net Profit margin (NPM) which was calculated by dividing Net Income and Net sales. Cash holding was calculated by dividing cash and cash equivalents and total assets. Whereas firm value was measured using Price Earnings Ratio (PER) which was obtained from divided market price per share and Earning Per Share (EPS). The market price per share was the average daily closing price in each research period.

Because the dependent variable was a dummy variable with two categories binary logistic regression was used to test the hypotheses in this study. The binary logistic regression equation used in this research was:

$$\ln \frac{IS}{1-IS} = \alpha + \beta_1(SIZE) + \beta_2(DTA) + \beta_3(NPM) + \beta_4(CH) + \beta_5(PER) + \varepsilon \quad (3)$$

Description:

$\ln \frac{IS}{1-IS}$: Income smoothing
α	: Constant
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Regression coefficient of independent variables
<i>SIZE</i>	: Company size (SIZE)
<i>DTA</i>	: Financial leverage (DTA)
<i>NPM</i>	: Profitability (NPM)
<i>CH</i>	: Cash holding (CH)
<i>PER</i>	: Firm value (PER)
ε	: Error

RESULTS AND DISCUSSION

The sample used based on the sampling criteria was 47 companies in a 4 year period, so the data used was from 188 observations and the descriptive statistic result was:

Table 3: Descriptive Statistical Test Results

	Range	Minimum	Maximum	Mean
Size	7.0549	26.439	33.494	28.997
DTA	0.6650	0.0035	0.6684	0.3524
NPM	1.9745	0.0005	1.9749	0.0972
CH	0.6315	0.0009	0.6323	0.1184
PER	20.377	2.4835	20.380	1.485

As shown in Table 3, the company size variable (SIZE) had an average value (mean) of 28.997 or IDR 18.984.719.162.309 (1.18 billion USD), indicating that the average company sampled for this study fell into the category of large-scale companies with a total asset value greater than IDR 250.000.000.000.000 (15.6 billion USD) based on OJK's calculation of company size. The variable financial leverage (DTA) had an average value of 0.352428 indicating that on average, the sampled companies had a debt-to-assets ratio of 35.24 percent. The profitability variable (NPM) had an average value of 0.097210, which meant on average, the companies sampled in this research were able to generate a net profit of 9.72% of the company's net sales. The cash holding variable had an average value of 0.128520, which meant that on average, the companies sampled in this research had a proportion of cash and cash equivalent ownership of 12.85% of the company's total assets. The firm value variable (PER) had an average value of 142.432765, which meant that the average company sampled in this research had a stock market price 142.432765 times higher than its earnings per share.

The following was the descriptive statistical data for the income smoothing variable:

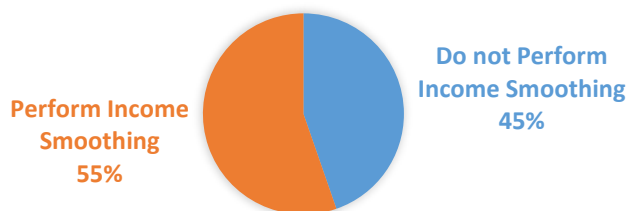


Figure 3: Pie Chart of Income Smoothing

The income smoothing variable was measured using a fictitious variable whose value was 1 if the company performed income smoothing and 0 otherwise. 55.32% or 104 out of 188 observations performed income smoothing. As depicted in Figure 4, the remaining 44.68% or 84 out of 188 observations did not implement income smoothing. Overall fit model assessment test resulted in the following:

Table 4: Initial -2LogL Value (Block Number=0)

Iteration History^{a,b,c}

Iteration		-2 Log likelihood	Coefficients Constant
Step 0	1	258.492	.213
	2	258.492	.214

Table 5: Final -2LogL Value (Block Number=1)

Iteration History^{a,b,c,d}

Iteration		-2 Log likelihood	Constant	SIZE	Coefficients			
					DTA	NPM	CH	PER
Step 1	1	250.614	5.525	-.198	.646	.814	.893	.000
	2	249.918	5.704	-.206	.710	1.336	.875	.000
	3	249.273	5.720	-.208	.720	1.613	.820	.000
	4	243.266	5.393	-.204	.865	1.946	.993	.004
	5	240.396	5.461	-.211	.867	2.191	1.017	.008
	6	239.506	5.543	-.216	.837	2.281	.951	.012
	7	239.382	5.605	-.219	.820	2.306	.904	.014
	8	239.379	5.620	-.220	.817	2.309	.895	.015
	9	239.379	5.620	-.220	.817	2.310	.895	.015

Table 4 shows that the model only with constants produced a -2LogL value of 258.492. while Table 5 shows that the model that included the independent variables produced a -2LogL value of 239.379. This shows that there was a decrease in the value of -2LogL by 19.113. The decrease in -2LogL was significant because the decrease in -2LogL is 19.113 greater than the value from the biometric tables ($df=5$. significance level 0.05) which had a value of 2.571. So it can be concluded that the addition of independent variables improved the model so that the model fit the data.

The feasibility test with Hosmer and Lemeshow's yielded a chi-square value of 4.777 with a significance of 0.781 (> 0.05), implying that the research model was fit and acceptable since it can predict the observed value. The coefficient of determination test yielded a value of 0.129 using Cox and Snell's R^2 and Nagelkerke's R^2 . These findings showed that the variable business size, financial leverage, profitability, cash holding, and firm value can explain 12.9% of the variance in income smoothing. Whereas the remaining 87.1% was explained by additional variables not investigated in this study. Following were the results of the classification table test:

Table 6: Classification Table Test Results

Classification Table^a

Observed		Predicted		Percentage Correct	
		Tidak Melakukan Perataan Laba	Melakukan Perataan Laba		
Step 1	IS	Tidak Melakukan Perataan Laba	41	43	48.8
		Melakukan Perataan Laba	28	76	73.1
Overall Percentage					62.2

a. The cut value is .500

As shown in Table 6 the prediction results for companies that did not perform income smoothing were as many as 84 observations while the actual observation results were as many as 41 observations so the classification accuracy was 48.8% (41/84). The prediction results for companies that did income smoothing were as many as 104 observations, while the actual observation results were as many as 76 observations. So the classification accuracy was 73.1% (76/104). Overall, the accuracy of the classification was 62.2% (117/188). The chi-square value of the Omnibus Test of Model Coefficient was 19.112 with a significance of 0.002 (0.05). So it can be concluded that company size, financial leverage, profitability, cash holding, and firm value had a significant effect on income smoothing simultaneously. The parameter estimation test resulted as follows:

Table 7. Classification Table Test Results

	B	Sig.
Size	-0.220	0.030
DTA	0.817	0.491
NPM	2.310	0.346
CH	0.895	0.597
PER	0.015	0.047
Constant	5.620	0.046

The regression coefficient for firm size (SIZE) was -0.220 at a significance level of less than 0.05, which was 0.030. Therefore, Ha1 was rejected, which indicated that company size had a negative influence on income smoothing. This result was in line with Kusmiyati and Hakim (2020). Firm size of 78.72% observations as below the average, and most of them had an Eckel index of less than 1 which indicated income smoothing. Most of these observations experienced a decrease in sales. So they tried to smooth their income using increasing other income as a result of gain from foreign exchange, gain from sales of plant assets, claim revenue, and scrap revenue. So, we can conclude that smaller companies did income smoothing to avoid a significant decrease in profit. Companies did income smoothing by increasing other income so the company's profit does not fluctuate.

The financial leverage (DTA) variables had a regression coefficient of 0.817 and a significance level of 0.491, which was greater than 0.05. Therefore, Ha2 was not supported, which meant that financial leverage had no effect on income smoothing. This result was in line with Suhartono and Hendraswari (2020). Based on data, 104 out of 188 (55.32%) observations recorded a decreasing DTA. This condition implied lower financial expenses, which resulted in increased income. To anticipate increasing profit significantly, most of the observed companies increased their other expense in the form of bad debt expense and impairment inventory. So, companies with low DTA were indicated to do income smoothing to avoid a significant increase in profit from financial income, so companies do income smoothing by increasing other expenses in order for the company's profit to not fluctuate.

Profitability variable (NPM) had a significance level greater than 0.05 and a regression coefficient value of 2.310, which was equal to 0.346. Therefore, Ha3 was rejected indicating that profitability had no influence on income smoothing. This result was in line with Amalia Haniftian and Dillak (2020). NPM below the average dominated the observations used in this study which reflected from 136 out of 188 (72.34%). Although the NPM was below average, these observations had increased receivables that resulted from increased sales and income. Increase in profit was due to significantly increasing financial income. Companies avoided this income fluctuation by increasing other expenses in the form of loss from foreign exchange and allowance for inventory impairment. Therefore, we concluded that companies with low NPM were advised to engage in income smoothing in order to prevent a significant increase in profit from financial income. Companies engaged in income

smoothing by increasing other expenses in order to ensure that the company's profit did not fluctuate.

Cash holding variables had a regression coefficient value of 0.895 with a significance level greater than 0.05, which was 0.597. So H_0 was rejected, which meant cash holding had no effect on income smoothing. This result was in line with Putri and Budiasih (2018), 51.33% of the observation had decreasing cash. This condition affected the companies' working capital that also impacted a decrease in profit. To avoid this fluctuation, companies increased their other income as of scrap revenue, claims income and gains from foreign exchange. So, we concluded that companies with low cash holdings did income smoothing to avoid a significant decrease in profit, so companies did income smoothing by increasing other income so that the company's profit did not fluctuate.

Firm value variable (PER) had a regression coefficient value of 0.015 with a significance level of less than 0.05, which was 0.047. So H_0 was accepted, which meant that firm value had a positive effect on income smoothing and this was in line with the research of Pradipta and Susanto (2019).

Based on the results of the parameter estimation test in Table 10a regression equation as obtained as follows:

$$\ln \frac{IS}{1 - IS} = 5,620 - 0,220 \text{ SIZE} + 0,817 \text{ DTA} + 2,310 \text{ NPM} + 0,895 \text{ CH} + 0,015 \text{ PER}$$

The firm size variable had a regression coefficient of -0.220 indicating that the log of odds of income smoothing by the company will diminish by a factor of 0.803 ($e^{-0.220}$) for every 1 unit increase in the firm size variable; therefore, firm size had a negative effect on income smoothing. The financial leverage variable had a regression coefficient of 0.817, indicating that the log of the company's odds of income smoothing will increase by a factor of 2.264 ($e^{0.817}$) for each additional unit of the financial variable (DTA), indicating that financial leverage had a positive effect on income smoothing. The profitability variable had a regression coefficient of 2.310, indicating that the log of odds of income smoothing by the company will increase by a factor of 10.069 ($e^{2.310}$) for every one unit increase in the profitability variable (NPM), indicating that profitability had a positive effect on income smoothing. The cash holding variable had a regression coefficient of 0.895, which indicated that the log of the company's odds of income smoothing will increase by a factor of 2.447 ($e^{0.895}$) for every one unit increase in the cash holding variable indicating that cash holding had a positive effect on income smoothing. The firm value variable had a regression coefficient of 0.015, indicating that the log of likelihood of income smoothing by the firm will increase by a factor of 1.015 ($e^{0.015}$) for every one unit increase in the firm value variable (PER), indicating that firm value had a positive effect on income smoothing.

CONCLUSION

Based on the research results conclusions that were obtained were company size had negative impact on income smoothing. These findings were based on a regression coefficient of -0.220 and a significance level of 0.030 (0.05), so Ha1 was rejected. Financial leverage measured by the Debt to Total Assets ratio, had no significant influence on income smoothing. These findings were based on a regression coefficient of 0.817 and a significance level of 0.491 (> 0.05) so, Ha2 was rejected. Net Profit Margin as a proxy for profitability, had no significant influence on income smoothing. The regression coefficient value of 2.310 with a significance level of 0.346 (> 0.05) demonstrated this finding. So, Ha3 was rejected. Cash holding had no effect on income smoothing. These findings were based on a regression coefficient of 0.895 and a significance level of 0.597 (> 0.05)so, Ha4 was rejected. But, Price Earnings Ratio (PER) which measures firm value, had a considerable beneficial effect on income smoothing. These findings were based on a regression coefficient of 0.015 and a significance level of 0.047 (> 0.05). According to the findings of this study, Ha5 was accepted.

According to the statistical test, the independent variables in this study explained 12.9% of the dependent variables, while other variables explained the remaining 87.1%. Variables addition such as Dividend Payout Ratio (DPR) and the bonus plan was highly recommended for further research. The research was also carried out in 2020 which was pandemic period when almost every country experienced a significant decline in global economic conditions so it may have had an impact on research results. This limitation should be considered in future research.

IMPLICATION

According to the research findings, income smoothing was generally performed on accounts whose valuation relied on judgment so that management can make value modifications for an account. Implication from this research is small-sized companies are more inclined to do income smoothing because companies have bank debt so companies try to reduce fluctuations in decreased profit to avoid the risk of violating debt agreements and this is in accordance with the Debt (equity) Hypothesis Theory. This also explains why company size negatively impact income smoothing. Based on the research results also, firm value was positively significant towards income smoothing that means that management will be concerned with companies' performance from market evaluation in order to maintain the stability of investors' assessment of the company so that the company's value remains high. The company performs income smoothing to avoid fluctuations in the increase in dividend distribution because most companies use cash holdings to distribute dividends. Companies can do income smoothing strategies by carrying out research and development activities that can reduce profit increases. Thus, the company's performance will be positively assessed by investors because the company is able to develop its business and is consistent in paying dividends.

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