

Income Smoothing as Dysfunctional Behavior Strategy to Develop Public Opinion of Good Performance

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ABSTRACT

Naturally, income smoothing is defined as management intervention in external financial reporting to benefit himself (manager). Mostly, this is an unplanned and direct process carried out by management. On the contrary, intentional income smoothing occurs because of interference from management. This research aimed to investigate the occurrence of income smoothing and estimate the magnitude of other factors in determining income smoothing in a company listed on the Indonesia Stock Exchange for the period 2013-2019. Furthermore, this research investigated the effect of past factors on management behavior in conducting income smoothing strategies. Time Series and Cross-Section data were employed in this research. Therefore, the suitable estimation model was panel data regression (Pooled Regression) equipped with Fixed Effect Model (FEM), Random effects Model (REM), and Hausman Test.

Keywords: *Company's Size, Profitability, Financial Leverage, Income Smoothing, Profit Quality.*

1. INTRODUCTION

One of the main objectives of the establishment of a company is to optimize profits. Therefore, various strategies are applied to achieve these objectives. The company will maintain its performance sustainably to receive a fair assessment from its stakeholders. However, in reality, companies are often faced with various obstacles that can cause a decrease in performance and even financial difficulties that cause bankruptcy. The company will certainly try to cover the unhealthy condition of its stakeholders, and one of them is by conducting profit management, particularly Income Smoothing, where profits are managed in such a way as to achieve the company's goals.

One case that had happened was the big scandal of the leading companies in America, namely Enron, which conducted a profit management strategy and caused losses of US \$ 50 billion. Besides, it also caused investor losses of US \$ 32 billion, and thousands of its employees had to lose their pension funds worth USD 1 billion. Meanwhile, in Indonesia, this happened in companies listed on the Indonesia Stock Exchange in the 2013-2019 period.

One element of financial performance is profitability. Profit is one crucial measure used as a benchmark by various parties in assessing the company's performance. Profitability is the company's ability to earn profits in sales. Profitability is often called Rentability, which means a company's ability to get profits in a certain period. For companies, the problem of profitability is often more important than the problem of profit itself since large profits do not indicate that the company can work efficiently. Efficiency can only be measured by comparing the profits obtained with the wealth or capital that produces these profits. Thus, the company should consider the effort to increase profits and the effort to improve profitability.

Income Smoothing is a management intervention in external financial reporting to benefit himself (manager). There are two types of income smoothing, namely natural income smoothing and intentional income smoothing [1]. Naturally, income smoothing is an unplanned process carried out directly by management. Meanwhile, intentional income smoothing occurs because of interference from management.

2. METHOD

Current economic behavior impacts the future and requires transmission or a mechanism with a certain period to see the impact. In modeling terms, a popular term for this phenomenon is the lag model. The lag range is very dependent on the sensitivity of the response to an event impacting other events. In this research, management behavior was assumed to have experience as a learning curve so that current behavior was influenced by previous behavior.

The general model of Autoregressive Distribution Lag (ADL) was as follows.

$$Y_t = \alpha + \beta_0 X_t + \beta_1 X_{t-1} + \beta_2 X_{t-2} + u_t \quad (1)$$

From this general model, the research model was constructed as follows.

$$Y_t = \alpha_0 + \alpha_1 X_1 + \alpha_2 X_2 + \alpha_3 X_3 + \alpha_4 X_{1t-1} + \alpha_5 X_{2t-1} + \alpha_6 X_{3t-1} + \alpha_7 Z_{t-1} + \alpha_8 Y_{t-1} + \varepsilon \quad (2)$$

Time Series and Cross-Section data were employed in this research. Therefore, the suitable estimation model was panel data regression (Pooled Regression).

The panel data regression model used was:

1. Fixed Effect Model (FEM).

This model is based on the assumption that sometimes fixed effects are not only derived from variations between individuals (time invariants) but are derived from variations between time or time effects. Thus, the basic model used was:

$$Y_{it} = \alpha_i + \gamma_t + X_{it}\beta + U_{it} \quad (3)$$

In this model, γ_t represented the time effect.

2. Random effects model (REM).

REM appears when there is no correlation between individual effects and regressors. This assumption results in an individual's error component, and the time effect is put into the error.

For one way error component, the model was constructed as follow:

$$y_{it} = \alpha_i + X_{it}\beta + U_{it} + \lambda_i \quad (4)$$

For the two-way error component, the model was constructed as follow:

$$y_{it} = \alpha_i + X_{it}\beta + U_{it} + \lambda_i + \mu_i \quad (5)$$

The following assumptions were used in REM:

$$E(u_{it} | \tau_i) = 0$$

$$E(u_{it}^2 | \tau_i) = \sigma_u^2$$

$$E(\tau_i | x_{it}) = 0 \text{ for all } i, t$$

$$E(\tau_i^2 | x_{it}) = \sigma_\tau^2$$

$$E(u_{it}\tau_j) = 0 \text{ for all } i, t, j$$

$$E(u_{it}u_{js}) = 0 \text{ for all } i \neq j \text{ or } t \neq s$$

$$E(\tau_i\tau_j) = 0 \text{ for } i \neq j$$

3. Hausman Test.

Correlations between regressors and individual effects were measured using the Hausman test to determine whether fixed or random effects were better. In this test, the following hypothesis was formulated for FEM:

$$H_0; E(\tau_i | X_{it}) = 0 \quad (6)$$

Alternatively, if REM was the right model, then the hypothesis used was as follow:

$$H_1; E(\tau_i | X_{it}) \neq 0 \quad (7)$$

As a basis for Ho's rejection, Hausman's statistics were compared to Chi-Square. Hausman statistics were measured using the formula below:

$$H = (\beta_{REM} - \beta_{FEM})(M_{FEM} - M_{REM})^{-1}(\beta_{REM} - \beta_{FEM}) \sim X^2(k) \quad (8)$$

M = covariance matrix for parameters.

k = degrees of freedom

If the value of the test results were more significant than χ^2 tables, Ho would be rejected. Thus, the model used was the fixed effects model and vice versa.

Table 1. Operationalization of variables

Variable	Indicator	Unit
Profit Quality (Z)	$AR_{it} = R_{it} - RM_{it}$ $R_{it} = \frac{P_{it} - P_{it-1}}{P_{it-1}}$ $RM_{it} = \frac{IHSG_{it} - IHSG_{it-1}}{IHSG_{it-1}}$ $CAR_{it} = \sum_{t=5}^{+5} AR_{it}$	Ratio
Company's Size (X ₁)	Size = Log TA	Ratio
Profitability (X ₂)	$ROA = \frac{Profit}{Total Asset} \times 100\%$	Ratio
Financial Leverage (X ₃)	$DER = \frac{TD}{TE}$	Ratio
Income Smoothing (Y)	$Income Smoothing index = \frac{CV\Delta I}{CV\Delta S}$ $CV\Delta I \text{ dan } CV\Delta S = \frac{Variance}{Expected Value}$	Ratio

Where:

AR = Average Return

RM = Return Market

CAR = Cumulative Abnormal Return
 TA = Total Asset
 ROA = Return On Asset
 DER = Debt to Equity Ratio
 CVΔI dan CVΔS = Coefficient of Variation Investment and Sales

3. RESULTS AND DISCUSSION

The Hausman test was carried out to select which pooled data regression model was suitable.

Table 2. Hausman test result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	162.810020	8	0.0000

Table 2 shows that the calculated Chi-Sq value > Chi-Sq table, indicating that the model suitable for this research was the Fixed Effect model. The following are the results of panel data regression using the Fixed Effect model.

Table 3. Fixed Effect model results.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.020644	0.724771	0.028483	0.9773
X1?	0.000286	0.118078	0.002426	0.9981
X2?	-0.091839	0.018672	-4.918541	0.0366
X3?	0.120423	0.023953	5.027470	0.0295
X1T?	-0.003454	0.003930	-0.879014	0.3811
X2T?	0.053018	0.012144	4.365777	0.0389
X3T?	0.004153	0.011080	0.374806	0.7084
ZT?	-3.83E-05	0.000943	-0.040587	0.9677
YT?	0.435163	0.076717	5.672330	0.0000

3.1 Company's size

Table 2 shows that firm size had a positive effect on Income Smoothing. This implies that if the company's size or total assets are improving, it is suspected that the opportunity to conduct Income Smoothing will be even greater. A company's size can be interpreted as a picture of the size of a company [2]. The larger the company, the easier it will be to get external funds in large amounts of debt. Therefore, this will help the company's operational activities and increase its productivity, followed by increased profitability and increased efforts to conduct company income smoothing.

The findings revealed that the effect of the company's size was not significant. This is in line with reference [3], which found that the company's size had no significant effect on the company's Income Smoothing, meaning that the company's size did not influence the management behavior in carrying out the Dysfunctional Behavior. However, the findings in reference [4] and [5] contradict

this research stating that the company's size had a negative and not significant effect on the company's income smoothing, which was indicated by the company's ability to make a profit.

3.2 Profitability

Table 2 shows the results of the regression analysis indicating that the sign of the coefficient is negative, which means that if the company experiences a decrease in profitability, management will tend to conduct more intensive Income Smoothing considering this strategy is good enough to maintain the credibility or trust of investors, customers, and related parties.

Investors tend to increase their investment in the company if the company has representative profits. This condition can be modified if the profit management conducts Income Smoothing. This is in line with reference [6], who stated that, from the perspective of profitability, companies that have high profitability (seen from high ROA and Net Profit Margin) would have greater opportunity to conduct Income Smoothing because management knows the company's ability to earn profits in the future.

Table 2 shows that the degree of significance was 0.0366, meaning that profitability significantly affected income smoothing. Therefore, the alternative hypothesis (Ha) was accepted. Thus, this finding was reliable. The management's reason for conducting income smoothing at certain companies listed on the Stock Exchange was rational since the elasticity of demand for shares by the public tended to be elastic. Thus, if the company did not show excellent performance by collecting representative profits, shareholders would quickly release their shares because they were in the market competition, assuming that investors were free exits and entrants.

3.3 Financial Leverage

The findings of this research show a positive value, meaning that if the leverage is higher, the management's efforts to conduct Income Smoothing will be stronger because the management will try to convince the debtor that the loan is safe in the company.

The results of this research were in line with reference [7] stating that the consequences of leverage are if the return on assets is greater than the cost of debt, the leverage is profitable, and the return on capital by using leverage will also increase. On the contrary, if the return on assets is smaller than the cost of debt, leverage will reduce the return rate on capital. Thus, the company will try to increase the rate of return on assets/profits to maintain the creditor's trust in the company. This effort sometimes makes the management to conduct Income Smoothing. This finding had a prob.value <0.05 so that the alternative hypothesis (Ha) was accepted, indicating

that the alleged Financial Leverage had a positive effect on Income Smoothing.

3.4 Lag factor

The regression analysis results showed that the Profitability and Income Smoothing factors had a prob.value <0.05, so the Null (H0) hypothesis was rejected. Management behavior towards Income Smoothing, which is a Dysfunctional Behavior, has a learning curve to develop strategies in Income Smoothing to make it look smooth and rational. Profitability as the center of interest of the parties concerned will be the main focus for management so that this factor does not decline. It is believed that profitability is the ultimate indicator that reflects the company's performance. Past profitability will be used as a base on evaluation that will affect next year's Income Smoothing.

Another significant lag factor is Income Smoothing in the previous year. It is believed that today's behavior is influenced by past behavior. This is very natural because management has expectations in the future. If taking Income Smoothing as a Dysfunctional Behavior in the past was successful, it would be repeated in the future because management considered the actions as successful, effective, and efficient, which means that past Income Smoothing is the "best teacher".

4. CONCLUSIONS

The findings to be synthesized in this research are:

1. Profit information in the income statement becomes one of the critical indicators determining its management performance because it feels burdened in meeting the targeted performance.
2. The purpose of Income Smoothing is to determine accounting methods to reduce reported profit instability to optimize profit presentation.
3. The purpose of Income Smoothing can be categorized as Dysfunctional Behavior if it is conducted only to maintain public opinion on company performance and/or maintain managerial positions.
4. Real, measurable, and quantitative accurate detection of Income Smoothing conducted by company managers/directors can quickly be done by looking at the variance of internal growth of microeconomic variables that are very beneficial for investors or creditors.

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