

Income Smoothing Analysis at Food and Beverages Companies Listed on the Indonesia Stock Exchange

Article info:

Received: August 15, 2019
Revised: September 4, 2019
Accepted: September 10, 2019

Correspondence:

¹ Arief A. Nugroho
ariefanugroho@gmail.com

Recommended citation:

Nugroho, A. A., 2019, Income Smoothing Analysis at Food and Beverages Companies Listed on the Indonesia Stock Exchange, *Sustainable Business Accounting and Management Review*, 1 (2), 82-92.

Arief A. Nugroho

Accounting Department, Faculty of Economics and Business, Pancasila University, Jl. Raya Lenteng Agung, Jakarta, DKI Jakarta, Indonesia

ABSTRACT: *The purpose of this study is to examine the effect of Firm Size, company profitability, company operating leverage, and company investment status on income smoothing practices in companies that go public on the Indonesia Stock Exchange. The statistical method used is multiple linear regression with dummy variables. Based on the sampling criteria, the food and beverage companies that went public on the Indonesia Stock Exchange from 2013 to 2017, the samples of this study amounted to eight companies, and these companies have been statistically tested to practice income smoothing. Multiple linear regression analysis with dummy variables in this study was carried out 2 (two) times, because in the first test, the multiple linear regression model with the resulting dummy variables violated the classical assumption, namely autocorrelation. The results of multiple linear regression analysis with the second test dummy variable are only the firm size which affects income smoothing, while the profitability, operating leverage, and investment status has no effect on income smoothing.*

Keywords: *Firm Size, Profitability, Operating Leverage, Investment Status, Income Smoothing Practices*

INTRODUCTION

Along with developing the business world in entering the free-market era, economic development and technological progress are a competition between several companies. Companies are required to maintain the company's operating activities to remain stable and develop so that it is expected to foster trust for outsiders, namely investors, and society. Users of financial statements can be divided into several parties: management, creditors, government, company employees, suppliers, consumers, and the public. These users can be divided into two major groups, namely internal parties and external parties. Of these parties, management is the party that is obliged to prepare financial statements because they are in the company and are the company's assets' direct manager. On the other hand, shareholders, creditors, and the government as parties who invest their capital in the company, provide loans to the company and have an interest in obtaining development funds in the form of taxes, and are parties with a strong interest in the information from the financial statements prepared by management, but not compiling financial reports (Jin & Machfoedz, 1998; Akbari et al., 2019, Purwanti & Utama, 2018).

Among the parties mentioned above, there are conflicts of interest between internal and external groups that can lead to conflicts that are detrimental to the parties interested in the financial statements. The disputes between these parties include: 1) Management wants to improve their welfare, while shareholders wish to increase their wealth. 2) Management intends to obtain the most considerable possible credit with low interest, while creditors only want to provide credit according to the company's capabilities. 3) Management intends to pay the smallest potential tax while the government wants to collect the highest possible tax (Jin & Machfoedz, 1998; Akbari et al., 2019).

The communication media commonly used to connect these parties are financial reports prepared by management as an internal party to account for their work results to external parties. In general, part of

the financial statements consisting of balance sheets, income statements, equity reports, cash flow reports, notes to financial statements is the entire financial statement presented. There is a tendency to pay more attention to profits in the income statement because earnings information also helps owners or other parties assess the company's future earnings (Jin & Machfoedz, 1998; Akbari et al., 2019).

Earnings information is a component of a company's financial statements that aim to assess management performance, estimate the ability of representative earnings in the long run, forecast profits, and evaluate risk in investing. As mentioned in Statement Of Financial Accounting Concept (SFAC) number 1 (AAA, 2006), earnings information is generally the primary concern in assessing the performance or accountability of management and earnings information to help owners other parties assess the company's future earning power.

In Indonesia, reporting and disclosure only provide partial information for decision-making. It is different from the reporting and disclosure carried out overseas. In Indonesia, financial reporting disclosures only consist of balance sheets, income statements, reports of changes in capital, cash flows, and notes to financial statements. For example, in the U.S., for large U.S. companies, the annual financial reporting of the company must consist of components: Management Reports, Independent Accountants' Reports, Primary Financial Reports, Management Discussions and Analysis of Operational Results and Financial Conditions, Secondary Financial Reports (for example, retained earnings reports), notes to financial statements, comparison of selected ten years of financial data, selected quarterly data, complementary financial information (Choi & Meek, 2005; Venturelli et al., 2019). Since disclosure is fundamental to financial reporting and the most qualitative aspect of reporting, the nature, and level of disclosure required in individual reporting situations is determined by experts' professional judgment (Choi & Meek, 2005).

Strong evidence shows that managers of foreign companies have a strong incentive to delay disclosure of negative news, "manage" financial reports to offer a more positive face of the company, and better assess their companies' performance and financial prospects. The disclosure rules establish provisions to ensure that shareholders receive timely, complete, and accurate information. This disclosure significantly affects existing practice, and sometimes managers conclude that the benefits of non-compliance with reporting requirements (such as high share prices due to increased earnings) outweigh the costs (Choi & Meek, 2005; Venturelli et al., 2019)

Research conducted by Ronen and Sadan (1975) in Jin & Machfoedz (1998). This situation is realized by management, especially among managers whose performance is measured based on this information, so that it encourages management to tend to perform dysfunctional behavior (inappropriate behavior). In contrast, the form of improper conduct related to earnings is the practice of income smoothing.

The practice of income smoothing has become known as a logical and rational practice. Beidleman (1973) in Jin & Machfoedz (1998) and Megaran et al. (2019) believe that management evenly distributes income to create stable profits and reduce the covariance of market returns. At the same time, Barnea & Sadan (1981) in Jin & Machfoedz (1998) states that managers carry out income smoothing to reduce fluctuations in reported earnings and increase investors' ability to forecast future cash flows.

Based on the effect of manipulation on earnings, Ilmanir (1993) in Jin & Machfoedz (1998) states that management efforts can be divided into two, namely measures to maximize or minimize profits and efforts to reduce earnings fluctuations (income smoothing). Explicitly efforts to maximize or minimize profits are hypothesized in various studies regarding accounting choices' economic consequences. Simultaneously, efforts to reduce profit fluctuations are a form of earnings manipulation. The amount of profit in a period is not too different from the profit amount in the previous period.

LITERATURE REVIEW

This study was conducted by researchers on four factors that can influence income smoothing practices, namely, Firm Size, company profitability, company operating Leverage, and company investment status.

According to Koch (1981) in Prihatmoko et al. (2004), namely:

"Income Smoothing a means used by management to diminish the variability of stream reported income number relative to some perceived target stream by manipulation of artificial (accounting) or real (transactional) variables."

This definition is used by management to reduce the variability of earnings between the series of reported earnings. Efforts to reduce the variability of yields arise because there is a difference between the amount of profit reported and the expected profit (average profit). The action can be to increase the amount of reported profit if the gain that should be reported is less than normal profit or decreasing the amount of reported profit if the reported profit is greater than normal profit.

Brayshaw & Eldin (1989) in Sesilia & Nurkholis (2001) state that income smoothing is a voluntary management action motivated by behavioral aspects within the company and its environment. The motivation for doing income smoothing is usually the satisfaction of two groups: external users (investors and creditors) and internal accounting information users.

Firm Size is the size or size of the company's assets as measured by total assets based on book value. Moses (1987) in Prihatmoko et al. (2004) found evidence that larger companies have a greater incentive to practice Income Smoothing compared to smaller companies. Large companies are subject to more rigorous research from the government and the public. The opposite result is found by Albrecht and Richardson (1990) in Prihatmoko et al. (2004) that larger companies have less incentive to do income smoothing than smaller companies.

The theory that underlies the relationship between firm size and income smoothing is signaling theory. This theory is related to the theoretical asymmetry that can occur when one party has a more concise information signal than the other party (Eugene F Brigham, 2006; Drover et al., 2018). Ashari et al. (1994), Juniarti & Corolina (2005), and Drover et al., 2018, study the relationship between firm size and income smoothing. They indicated that small companies are more likely to practice income smoothing than large companies because large companies tend to get more attention than analysts and investors than small firms. On the other hand, companies with considerable assets, categorized as large companies, will generally get more attention from various parties such as analysts, investors, and the government.

For this reason, large companies are expected to avoid too drastic fluctuations in profit because a drastic increase in yield will cause an increase in taxes. Conversely, a severe decline in profit will give a bad image. Therefore, large companies are estimated to have a greater tendency to undertake income smoothing measures (Juniarti & Corolina, 2005; Indrawan et al., 2018).

H1: Firm size affects Income Smoothing.

Profitability is the level of profit that the company can achieve concerning its sales. The relationship between profitability and income smoothing Zuhroh (1998) in Jin & Machfoedz (1998) states that income smoothing tends to be carried out by companies with low profitability. This action can occur because income smoothing is a general phenomenon that aims to reduce variability in company profits.

The theory that underlies the relationship between company profitability and income smoothing is the expectancy theory. This theory states that individuals change their behavior based on the expected results of an event. The benefits derived from an expected result led to achieving the desired remuneration (Supriyono, 1999: 140). The relationship between profitability and income smoothing Zuhroh (1998) in Jin & Machfoedz (1998) states that income smoothing tends to be carried out by companies with low profitability. This tendency can occur because income smoothing is a general phenomenon that aims to reduce variability in company profits. Besides, according to Gordon (1964) in Jin & Machfoedz (1998), it is explained that shareholder satisfaction increases with stable company income from year to year.

The fact is that there is a tendency to pay more attention to profit in the income statement. This situation is recognized by management, especially among managers whose performance is measured based on this information, thus encouraging inappropriate behavior (Yanti & Dwirandra, 2019). The improper behavior that arises concerning profits is the practice of income smoothing.

H2: Profitability affects Income Smoothing.

Operating Leverage is the degree to which the company is financed by debt or external parties with its capabilities or total assets. Companies with high operating Leverage have the risk of suffering more significant losses. Still, if they have a greater opportunity to earn profits, even though there is a greater possibility of making profits, investors are generally reluctant to face risks.

Underlies the relationship between the company's operating Leverage and income smoothing is the leverage exchange theory. The leverage exchange theory (The Trade-off Theory of Leverage) states where companies exchange the benefits of funding through debt (favorable corporate tax treatment) with higher interest rates and freight costs (Eugene, 2006: 36).

Companies with high operating Leverage have the risk of suffering more significant losses. Still, if they have a greater opportunity to earn profits, even though there is a possibility of obtaining a greater profit, investors are generally reluctant to face risks. This profit encourages the company owner to ask the manager to report that the company has profitable operating Leverage based on the existing economic situation. This owner's claim often forces the manager to take income smoothing actions to reduce these demands. Operating Leverage is one factor that encourages the practice of income smoothing (Ashari and Zuhroh in Jin and Machfoedz, 1998; Indrawan et al., 2018).

H3: Operating Leverage affects Income Smoothing.

The investment status of the company is a foreign and non-foreign company that sells its shares in Indonesia. According to Yusuf and Soraya (2004), all foreign and non-foreign companies listed on the Jakarta Stock Exchange tend to perform income smoothing. Yusuf and Soraya researched the Jakarta Stock Exchange from 1998 to 2001 with company status as one of its independent variables. They stated that company status does not affect the practice of income smoothing, although Yusuf and Soraya (2004) state that there is no relationship between income smoothing and company status. However, the researcher wanted to re-examine the relationship between company status and income smoothing practices at different research times.

H4: Investment Status affects Income Smoothing.

For more details, it can be explained by the diagram as follows:

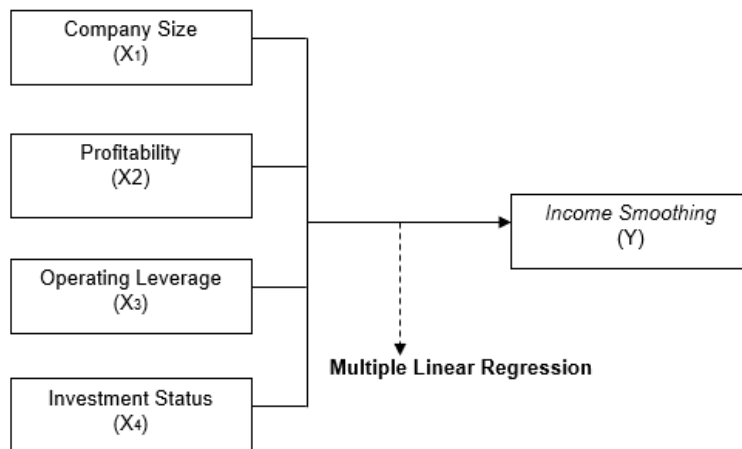


Figure1. Research Framework

RESEARCH METHOD

Population dan Sample

The population used in this study is a company engaged in the Food and Beverages industry. The company has been listed on the Jakarta Stock Exchange as many as 14 companies from 2013 - 2017. The sampling

technique used was the purposive sampling technique, namely sampling using specific criteria. Based on the Eckel Index formula, the Food and Beverages companies used as research samples are prioritized companies that have sales greater than their profits or are statistically tested that the company is doing income smoothing. The samples are eight Food and Beverages companies, namely: P.T. Aqua Golden Mississippi, Tbk; P.T. Davomas Abadi, Tbk; P.T. Delta Djakarta, Tbk; P.T. Multi Bintang Indonesia, Tbk; P.T. Mayora Indah, Tbk; P.T. Sari Husada, Tbk; P.T. Siantar Top, Tbk; and P.T. Tunas Baru Lampung, Tbk.

Operational Definition and Variable Measurement

Table 1 shows the operational definition dan measurement of the dependent variable (income smoothing) and independent variables (Firm Size, profitability, operating Leverage, and investment status)

Table 1. Operational Definition and Variable Measurement

No	Variables	Operational Definition	Measurement
1	Firm Size (X1)	size of the condition of the company by looking at the size of the company's assets	Size = Log Total Assets
2	Profitability (X2)	management effectiveness measurement from reported earnings	Profitability = $\frac{\text{Income after Tax}}{\text{Net Sales}} \times 100\%$
3	Operating Leverage (X3)	measurement of the extent to which the company's assets are financed from debt	Operating Leverage = $\frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100\%$
4	Investment Status (D)	Whether it is a domestic investment or foreign investment	Dummy variable, 1 for domestic investment and 0 for foreign investment
5	Income Smoothing (Y)	management steps to make the accounting profit reported by the company to be smooth (has low fluctuation)	Eckel Index: Indeks IC = $(CV_{\Delta} / CV_{\Delta S})$

Source: Previous research

Hypothesis Testing

The analysis model used in this research is multiple linear regression with dummy variables. The mathematical form of multiple linear regression is:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 D + e \dots\dots\dots (1)$$

Where:

Y = Income Smoothing

b₀ = Constant

b₁, b₂, b₃, b₄ = regression coefficient

X₁ = Firm Size

X₂ = company profitability

X₃ = Company operating leverage

D = company investment status

e = error

The t-test is used to determine the effect of independent variables on the dependent variable. The test criteria are as follows:

- 1) If the significant level (sig) > 5%, then H₀ is accepted and H₁ is rejected
- 2) If the significant level (sig) < 5%, then H₀ is rejected, and H₁ is accepted

RESULT AND DISCUSSION

Results

Multiple Linear Regression

Based on the results of the F test, namely the multiple linear regression model is suitable at Alpha = 10%, then the multiple linear regression model used is:

$$Y = -10,370 + 0,725 X_1 - 0,0428 X_2 + 0,006345 X_3 - 0,187 D \dots \dots \dots (2)$$

From the multiple linear regression model, it can be explained:

- Constant (a) = -10,370 means that if the size of the company (X₁), profitability (X₂), operating Leverage (X₃), and investment status (X₄) are constant, then income smoothing is -10,370 (an indication of doing income smoothing because I.C. <1)
- The regression coefficient for the firm size variable (b₁) = 0.725 means that if the Firm Size increases by one unit, it will increase income smoothing (Y) by 0.725, assuming the other independent variables are constant.
- The firm size variable's regression coefficient is positive, which means that the higher the Firm Size, the greater the income smoothing value. This sign shows that the greater its total assets, the company's tendency not to perform income smoothing.
- The regression coefficient for the firm's profitability variable (b₂) = -0.0428 means that if the company's profitability increases by one unit, it will reduce income smoothing (Y) by 0.0428. Other independent variables are constant.
- The firm's profitability variable's regression coefficient is negative, which means that the greater the company's profitability, the lower the income smoothing value. This sign shows that the greater the company's profitability, the more there is a tendency for the company to perform income smoothing.
- The regression coefficient for the operating leverage variable (b₃) = 0.006345 means that if the operating Leverage increases one unit, it will increase income smoothing (Y) by 0.006345, assuming the other independent variables are constant.
- The regression coefficient of the operating leverage variable is positive, which means that the higher the operating leverage, the greater the income smoothing value. This sign shows that the greater the company's operating Leverage, the more likely it is that the company does not perform income smoothing.
- The regression coefficient for the investment status variable (D) = -0.187
- The variable of company investment status is a dummy variable divided into two categories: domestic investment status (score = 1) and foreign investment status (score = 0). Based on the size of the resulting income smoothing value, it can be concluded that companies with domestic investment (PMDN) and foreign investment (PMA) for investment status have the same tendency to do income smoothing (I.C. <1). The relatively same constant value between multiple linear regression models for PMDN investment and multiple linear regression models for PMA investment status.

Hypothesis t-test

The t-test is used to determine the variable Firm Size (X₁), profitability (X₂), operating leverage (X₃), and investment status (X₄) on the variable income smoothing (Y).

Table 2. Hypothesis t-Test

No	Independent Variables	t-count	Sig.	Conclusion
1	Firm Size (X ₁)	2,496	0,022	H1 accepted
2	Profitability (X ₂)	-1,209	0,241	H2 rejected
3	Operating Leverage (X ₃)	0,487	0,632	H2 rejected
4	Investment Status (D)	-0,405	0,690	H2 rejected

Source: Data processed

The explanation of the results of the t-test in Table 2 is as follows:

- The t-count value of the firm size variable (X1) is 2.496 with a significant level of less than 5%, which is 0.022 (sig <5%), so H0 is rejected, and H1 is accepted, which means that Firm Size (X1) affects income smoothing (Y).
- The t-count value of the firm's profitability variable (X2) is -1.209 with a significant level greater than 5%, which is 0.241 (sig > 5%), so H0 is accepted, and H1 is rejected, which means that the company's profitability (X2) does not affect income smoothing. (Y).
- The t-count value of the operating leverage variable (X3) is 0.487 with a significant level greater than 5%, which is 0.632 (sig > 5%), so H0 is accepted, and H1 is rejected, which means that operating Leverage (X3) does not affect income smoothing (Y).
- The t-count value of the investment status variable (D) is -0.405 with a significant level greater than 5%, namely 0.690 (sig > 5%), then H0 is accepted, and H1 is rejected, which means that the investment status (D) does not affect income smoothing. (Y).

Based on the results of the t-test, it shows that only firm size (X1) affects income smoothing (Y), while profitability (X2), operating leverage (X3), and investment status (D) does not affect income smoothing (Y)

Discussion

Multiple linear regression analysis proves that the multiple linear regression model used in the study is suitable at Alpha = 10% or simultaneously the Firm Size variables, profitability, operating Leverage, and investment status are tested to influence income smoothing. This number can be seen from the resulting F-count value of 2,500 with a significant level of less than 10%, namely 0.077.

The resulting coefficient of determination (R²) of 0.345 (Appendix 8) shows that Firm Size, profitability, operating Leverage, and investment status influence the income smoothing variable by 34.5%. In comparison, the remaining 65.5% is influenced by other factors. not discussed in this study, such as business groups, stock prices, etc.

The low value of the coefficient of determination (R²) is due to the small number of independent variables studied that influence income smoothing. This coefficient is evident from the t-test results, namely the partial effect test, which shows that only the firm size variable affects income smoothing. The variables of profitability, operating Leverage, and investment status do not affect income smoothing.

Effect of Firm Size on Income Smoothing

The regression coefficient on the firm size variable is positive, namely 0.725, which means that the higher the Firm Size, the greater the income smoothing value. If the Firm Size increases by one unit, the income smoothing will increase by 0.725, assuming the other independent variables are constant.

The positive pattern of the relationship between Firm Size and income smoothing (marked by a positive regression coefficient) shows that the greater the company's total assets, the more the company tends not to perform income smoothing. Simultaneously, Firm Size's significant effect on income smoothing is seen from the resulting t count, which is 2.496 with a significant level of less than 5% (sig = 0.022).

Based on this description, it can be concluded that Firm Size has a positive effect on income smoothing. This study's results are the development of research by Juniarti & Carolina (2005), which concluded that the Firm Size factor does not affect the occurrence of income smoothing action. Besides, this study's results are also the development of research by Jin & Machfoedz (1998) and Yusuf & Soraya (2004), where Jin & Machfoedz conclude that Firm Size is not a driving factor for practice. Income smoothing and Yusuf and Soraya (2004) concluded that the practice of income smoothing is not influenced by aspects of firm size, company profitability, and company investment status.

Effect of Profitability on Income Smoothing

The regression coefficient on the firm's profitability variable is negative -0.0428, which means that the higher the company's profitability, the smaller the income smoothing value and if the company's profitability increases by one unit, the income smoothing will decrease by 0.0428, assuming the other independent variables are constant.

The negative pattern of the relationship between the company's profitability and income smoothing (marked by a negative regression coefficient) indicates that the company's greater profitability, the company

tends to do income smoothing. In comparison, the significant effect of company profitability on income smoothing is seen from the resulting t-count, which is -1.209 with a significant level greater than 10% (sig = 0.241).

Based on this description, it can be concluded that company profitability does not affect income smoothing. The company's profitability does not affect income smoothing because investors tend to ignore the maximum profitability information available, so that management is not motivated to smooth income through this variable. The results of this study support research conducted by Juniarti & Carolina (2005), Jin & Machfoedz (1998), and Yusuf & Soraya (2004), namely that company profitability is not a driving factor for the practice of income smoothing, or profitability does not affect the occurrence of income smoothing action.

However, this study is different from Peterson & Arun (2018). They showed that in the post-crisis period, companies tend to adopt income smoothing. They found that capital regulation and abnormal economic fluctuations create incentives for companies to use accounting numbers to smooth income. Indrawan et al. (2018) suggested that profitability has an adverse effect on income smoothing. The more profit company make, the lesser they do income smoothing.

Effect of Operating Leverage on Income Smoothing

The regression coefficient on the company's operating leverage variable is positive 0.006345, which means that the higher the company's operating Leverage, the higher the income smoothing value. If the company's operating leverage increases by one unit, the income smoothing will increase by 0.006345 with the assumption of other independent variables is constant.

The positive pattern of the relationship between the company's operating Leverage and income smoothing (marked by a positive regression coefficient) shows that the greater the company's operating Leverage, the company tends not to perform income smoothing. Meanwhile, the significant effect of the company's operating Leverage on income smoothing is seen from the resulting t-count, which is 0.487 with a significant level greater than 10% (sig = 0.632).

Based on this description, it can be concluded that the company's operating Leverage does not affect income smoothing. Operating Leverage does not affect income smoothing due to the Indonesian economy's unstable state with high-interest rates followed by high loan interest rates. Companies with high Leverage are more likely to do income smoothing because high Leverage means the company has a greater risk. However, companies will be more careful in taking credit to avoid non-smooth repayments on these loans with high-interest rates. So, in this case, the company does not make loans that are too large. The level of Leverage is not too high and not too risky. Without doing income smoothing, the company's Leverage will look normal.

This study is a development of previous studies, namely research by Juniarti & Carolina (2005), Jin & Machfoedz (1998), Yusuf & Soraya (2004), Indrawan et al. (2018). They concluded that the company's operating Leverage is the driving factor for the practice of income smoothing or the operating leverage factor affects the income smoothing action.

Effect of Investment Status on Income Smoothing

The variable of company investment status is a dummy variable divided into two categories: domestic investment status (score = 1) and foreign investment status (score = 0). Based on the resulting multiple linear regression model, it can be explained that if the Firm Size, profitability, and operating Leverage are constant, then income smoothing for companies with PMDN investment status is $-10,557$. On the other hand, the income smoothing for companies with PMA investment status is $-10,370$.

The size of the value of income smoothing explains that companies with PMDN and PMA investment status tend to do income smoothing (I.C. <1). This value can be seen from the constant value that is relatively the same between the multiple linear regression model for PMDN investment status and the multiple linear regression model for foreign investment status.

The results of this study concluded that the investment status does not affect income smoothing. Investment status does not affect income smoothing due to public attention on the company investment status. There are also government regulations that are quite binding, which were initially thought to be used

to prevent income smoothing action. Such law is on the compensation for losses (UU PPh 17 of 2000 article 6 paragraph 2). The tight supervision from the government so that the company does not have room to do income smoothing is one reason why the company does not take income smoothing.

The results of this study are not consistent with Yusuf & Soraya (2004), who concluded that the company's investment status is the driving factor for the practice of income smoothing or the company's investment status factor affects the occurrence of income smoothing actions.

CONCLUSION

The results show that only firm size affects income smoothing, while profitability, operating Leverage, and investment status do not affect income smoothing.

The first limitation of this study is it does not consider inflation during the study's span to have an insignificant impact on the research results. Second, the sampling technique uses the purposive sampling method, where the sample of this study is eight Food and Beverage companies, which can impact the generalization of research results.

Future research should improve ways of measuring or detecting income smoothing practices and observing them in different contexts such as additional periods, economic cycles, the number of companies sampled, etc. Also, the effect of adopting new accounting standards and tax regulations should be considered in conducting the test.

Other factors that are thought to influence income smoothing practices, such as business groups, stock prices, and so on, should also be added to the test because the research variables used are Firm Size, profitability, operating Leverage, and investment status. The income smoothing variable was 34.5%, while other factors influenced the remaining 65.5%.

REFERENCES

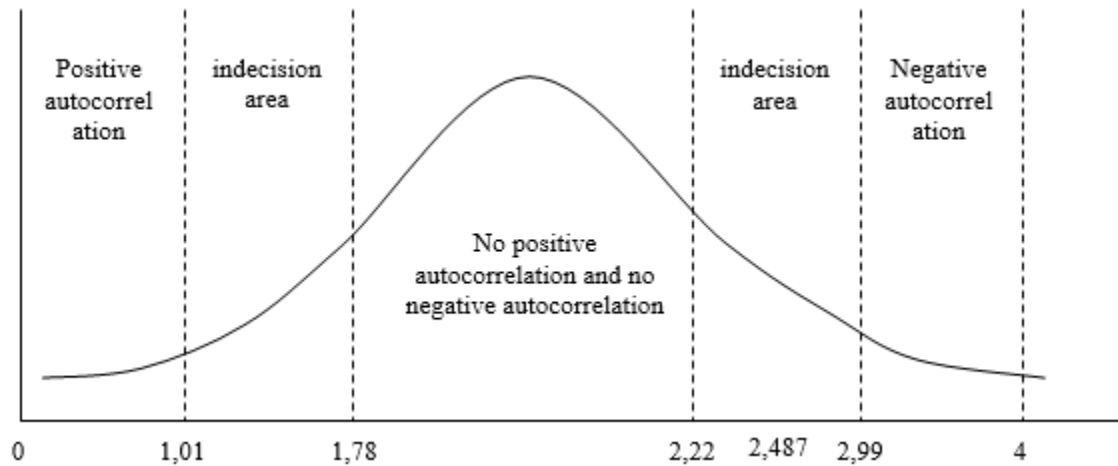
- AAA, American Accounting Association's Financial Accounting Standards Committee, (2006). Financial Accounting, and Reporting Standards for Private Entities, *Accounting Horizon*, 20 (2), June, 179-194, retrieved from https://www.fasb.org/jsp/FASB/Document_C/DocumentPage&cid=1176156894785
- Akbari, F., Salehi, M. and Bagherpour Vlashani, M.A. (2019), "The relationship between tax avoidance and firm value with income smoothing: A comparison between classical and Bayesian econometric in multilevel models," *International Journal of Organizational Analysis*, Vol. 27 No. 1, 125-148. <https://doi.org/10.1108/IJOA-09-2017-1235>
- Assih & Gudono, (2000), Hubungan Tindakan Perataan Laba dengan Reaksi Pasar atas Pengumuman Informasi Laba Perusahaan yang Terdaftar Di Bursa Efek Jakarta, *Jurnal Riset Akuntansi Indonesia*, Vol.3 No. 1, Januari, 35 – 53.
- Choi, Frederick .D.S & Meek, Gary .K, (2005), *International Accounting Buku 1 edisi 5*, Jakarta: Salemba Empat.
- Drover, W., Wood, M. S., & Corbett, A. C. (2018). Toward a Cognitive View of Signalling Theory: Individual Attention and Signal Set Interpretation, *Journal of Management Studies*, 55 (2), 209-231, <https://doi.org/10.1111/joms.12282>
- Indrawan, V., Agoes, S., Pangaribuan, H., & Popoola, O. M. J. (2018). The Impact of Audit Committee, Firm Size, Profitability, and Leverage on Income Smoothing. *Indian-Pacific Journal of Accounting and Finance*, 2(1), 61-74. Retrieved from <http://ipjaf.omjpalpa.com/index.php/ipjaf/article/view/42>
- Juniarti & Corolina, (2005), Analisa Faktor-Faktor yang Berpengaruh terhadap Perataan Laba (Income Smoothing) pada Perusahaan-Perusahaan Go Public, *Jurnal Akuntansi Dan Keuangan*, Vol. 7 No. 2, November, 148-162.

- Jin, L. S. & Machfoedz, M. (2000), Faktor – Faktor yang Mempengaruhi Praktik Perataan Laba pada Perusahaan yang terdaftar di Bursa Efek Jakarta, *Jurnal Riset Akuntansi Indonesia*, Vol.1 No. 2, Juli, 177 – 191.
- Khafid & Mahfud, (2002), Analisis Income Smoothing (Perataan Laba): Pengaruhnya terhadap Reaksi Pasar dan Risiko Investasi pada Perusahaan Publik di Indonesia, *Jurnal Manajemen Akuntansi dan Sistem Informasi*, Vol.1, Agustus, 69 – 89.
- Megarani, N., Warno, & Fauzi, M. (2019). The effect of tax planning, company value, and Leverage on income smoothing practices in companies listed on Jakarta Islamic Index, *Journal of Islamic Accounting and Finance Research*, Vol. 1 No. 1, 139-162; DOI: <https://dx.doi.org/10.21580/jiafr.2019.1.1.3733>
- Mulyani & Meiden, (2003), Perataan Laba: Praktik Perilaku Disfungsional Manajemen, *Jurnal Manajemen Keuangan*, Vol. 10 No. 3, September, 47 – 63.
- Peterson, O. K. & Arun, T.G. (2018). Income smoothing among European systemic and non-systemic banks, *The British Accounting Review*, 50 (5), September, 539-558
- Prihatmoko & Wibowo, (2004), Analisis Perataan Laba (Income Smoothing): Faktor – Faktor yang Mempengaruhi dan Kaitannya dengan Kinerja Saham Perusahaan Publik di Indonesia, *Media Riset Akuntansi, Auditing dan Informasi*, Vol. 4 No. 3, Desember, 259 – 281.
- Purwanti, A., & Utama, I. W. (2018, June 30). Earning Management Analysis before and after Implementation of International Financial Reporting Standards (IFRS): Empirical Study of Automotive and Components Companies Registered on the IDX. *Journal of Accounting and Strategic Finance*, 1(1), 45-56. <https://doi.org/https://doi.org/10.33005/jasf.v1i01.25>
- Sesilia, D. & Nurkholis, (2001), Analisis Reaksi Pasar terhadap Informasi Perataan Laba: Kasus Praktik Perataan Laba pada Perusahaan yang Terdaftar di Bursa Efek Jakarta, *TEMA*, Vol. 2 No. 1, Maret.
- Salno & Baridwan, (2000), Analisis Perataan Penghasilan (income smoothing): Faktor yang Mempengaruhi dan Kaitannya dengan Kinerja Saham Perusahaan Publik di Indonesia, *Jurnal Riset Akuntansi Indonesia*, Vol.3 No.1, Januari, 17 – 33.
- Venturelli, A., Caputo, F., Leopizzi, R. and Pizzi, S. (2019), "The state of art of corporate social disclosure before the introduction of non-financial reporting directive: a cross country analysis," *Social Responsibility Journal*, Vol. 15 No. 4, 409-423. <https://doi.org/10.1108/SRJ-12-2017-0275>
- Waluyo, Y., (2007), Industri Manufacture hanya tumbuh 5,83% pada kuartal 1, *Bisnis Indonesia*, Tahun XXII, no 7336, 22 mei, Hal 1.
- Yanti, N. M. Y. W. A. & Dwirandra, A.A.N.B. (2019). The Effect of Profitability in Income Smoothing Practice with Good Corporate Governance and Dividend of Payout Ratio as a Moderation Variable, *International Research Journal of Management, IT & Social Sciences*, Vol. 6 No. 2, March, 12~21, <https://doi.org/10.21744/irjmis.v6n2.601>
- Yusuf & Soraya, (2004), Faktor – Faktor yang Mempengaruhi Praktik Perataan Laba pada Perusahaan Asing dan Non Asing di Indonesia, *Jurnal Akuntansi dan auditing Indonesia*, Vol. 8 No.1, Juni, 99 – 125.

Appendix

The first and second tests of hypothesis because of autocorrelation.

It is necessary to look at the Watson table with the number of independent variables (k) and the amount of data (n) so that it is known that dL and dU can be obtained from the distribution of the decision area whether there is autocorrelation. This test is done to determine whether there are symptoms of autocorrelation



The curve above shows that the resulting d value is in the indecision area between 4 - dU (2.22) to 4 - dL (2.99). A $\hat{\rho}$ transformation is carried out to overcome the autocorrelation, which is based on Durbin Watson's d statistic, namely by:

1. Calculating the value of $\hat{\rho}$

$$\hat{\rho} = \frac{n^2(1-d/2) + k^2}{n^2 - k^2}$$

Information :

d = 2,594

n = 24

k = 5

hence:

=

= -0.2651

2. The first observations X and Y are multiplied by to avoid missing one observation
3. The original data is converted into form $(Y * t + 0.2651 Y * t-1)$ and $(X * t + 0.2651 X * t-1)$

After the transformation, the next step is to regress the four independent variables to the dependent variable.

Because the resulting d value is between 2.22 (4 - dU) to 2.99 (4 - dL) or is in an area of doubt, it cannot be concluded whether autocorrelation has occurred or not. Multiple linear regression analysis continues, although it violates the assumption of autocorrelation. The researchers have tried to overcome the existence of autocorrelation with $\hat{\rho}$ transformation.