

The Influence Of Top Management Team, Company Size, And Leverage On Earnings Management

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| Article Info | ABSTRACT |
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| <p>Keywords: Top Management Team, Company Size, Leverage, Earnings Management</p> | <p>This study aims to determine the effect of the top management team, company size and leverage on earnings management. This type of research is quantitative research. This study uses secondary data obtained from the Indonesian Stock Exchange (IDX) website. The sample for this research is 24 companies that have conducted an IPO for the 2017-2021 period. This study uses a purposive sampling technique as a sample selection. The analytical method of this study uses multiple linear regression analysis with Eviews 12 as an analytical tool. The results show that the variables of the top management team have an effect on earnings management. Firm size variable and leverage has no effect on earnings management</p> |
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INTRODUCTION

According to the Statement of Financial Accounting Concept (SFAC) No. 1, earnings information is a primary focus for interpreting management performance or accountability (Irfan & Deannes, 2019). Performance evaluation reflects the company's profit achievements, and earnings information can be used as a basis for decision-making regarding the continuity of a company's operations.



Figure 1. Profit Growth in Manufacturing Companies

Figure 1 above illustrates the profit growth of manufacturing companies in the food and beverage sector. It shows a significant decline in profits from 2017 to 2021. (Source: BPS, 2021). With the declining profit growth, companies are likely to undertake efforts to remain sustainable, which in turn affects their profitability. As a result, management may engage in actions aimed at inflating profits to present a favorable corporate performance.

The phenomenon above has been demonstrated in cases of earnings management practices by several companies, such as PT Tiga Pilar Sejahtera Food Tbk (AISA), PT Lippo Tbk, PT Kimia Farma Tbk, and PT Garuda Indonesia Tbk. For instance, PT Tiga Pilar Sejahtera Food Tbk (AISA), a company in the food and beverage sub-sector, engaged in inflating accounting entries by Rp 4 trillion.

Several factors can influence the occurrence of earnings management, as exemplified in the cases above, including the top management team, company size, and leverage. This study aims to address the following research questions: (1) Does the top management team affect earnings management? (2) Does company size influence earnings management? (3) Does leverage impact earnings management?

This research adopts signaling theory, which posits that financial information published in the form of reports serves as a signal for investors to make investment decisions. Furthermore, signaling theory assumes that investors possess similar information regarding a company's future profit prospects.

Development of Hypotheses

Hambrick and Mason propose that Upper Echelon Theory reflects the role of educational attainment in shaping managerial abilities and skills (Abatecola & Cristofaro, 2018). Managers with higher education levels are better equipped to engage in accrual-based earnings management practices, whereas managers with lower education levels face difficulties in such practices. Instead, they are more likely to meet profit targets through real earnings management practices. This assertion is supported by the findings of Pricilla (2020) and Baatwah et al. (2020), which indicate that the top management team significantly influences earnings management.

H1: The top management team has a positive effect on earnings management.

According to Riyanto (2017), firm size refers to the scale of a company, as measured by equity value, sales value, or asset value. Sartono (2017) similarly states that large, well-established companies can more easily access capital in financial markets compared to smaller firms. This accessibility grants larger companies greater financial flexibility. The larger the company, the higher the efficiency in managing profits (positively related). Consequently, larger firms are less likely to engage in earnings management practices.

This statement is supported by research findings (Henry & Astri, 2016; Bassiony et al., 2016; Anggita & Ayu, 2017; Nasir et al., 2018; Sutrisno & Endang, 2019; Rusci et al., 2021; Andriyansyah & Sugiyanto, 2021), which conclude that firm size has a positive relationship with earnings management. However, research by Purba & Umboh (2021) suggests that firm size is positively related to earnings management, while Wulandari & Suganda (2021) find no significant relationship between firm size and earnings management.

H2: Firm size has a positive effect on earnings management.

According to Kasmir (2018), leverage, or the solvency ratio, measures the extent to which a company's activities are financed by debt. This definition is reinforced by Irham Fahmi (2018), who states that leverage measures the proportion of a company's financing derived from debt. Excessive debt usage can endanger a company, placing it in an "extreme leverage" category, characterized by high debt levels and difficulty in reducing its debt burden. While both leverage ratios and liquidity ratios assess a company's ability to meet obligations, they differ in the time frame for fulfilling such obligations.

This statement is supported by research findings (Bassiony, 2016; Ayu & Anggita, 2017; Moghaddam & Abbaspour, 2017; Yofi & Elly, 2018; Prieto et al., 2020), which demonstrate a significant positive relationship between leverage and earnings management. Conversely, Rusci et al. (2021) report a significant negative relationship between leverage and earnings management, while other studies (Surjandari et al., 2019; Asyati & Farida, 2020; Wulandari & Suganda, 2021) find no significant relationship between leverage and earnings management.

H3: Leverage has a positive effect on earnings management.

METHODS

This study employs a quantitative research approach through an empirical examination of food and beverage manufacturing companies listed on the Indonesia Stock Exchange (IDX) for the 2017–2021 period. The data analysis process involves selecting samples using the purposive sampling method. This method allows the researcher to determine the sample based on specific criteria to ensure a representative dataset. Out of 24 identified companies, 24 were initially selected as samples, but four datasets were found to be non-normal. Following an outlier test, the final sample size was adjusted to 100 datasets, all meeting the research's predetermined criteria. The research model examines the influence of top management teams, company size, and leverage on earnings management, with audit quality included as a moderating variable. The operational definitions of these variables, along with their respective measurement indicators, are detailed in the subsequent table, providing clarity on how each variable contributes to the analysis and the overall research objectives.

Table 1. Operationalization of Variabl

| Variables | Indicator | Measurement Scale |
|--------------------------|---|-------------------|
| Earnings Management (Y) | DACC = (TAC/ TAit-1) - NDACC | Ratio |
| Top Management Team (X1) | Dummy 1 = top management team members with a master's degree or CPA 0 = top management team members without a master's degree or CPA) | Nominal |
| Firm Size (X2) | Size = Ln Asset | Nominal |
| Leverage (X3) | $\frac{\text{Total Debt}}{\text{Total Assets}}$ | Ratio |

Research Model:

$$DACC_{it} = \alpha + \beta_1 TMP_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \varepsilon$$

Where:

α : Constant
 β_1, β_2 : Coefficients
 ε : Error
i : Enterprise *i*
t : Year *t*

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2. Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---------------------|-----|---------|---------|----------|----------------|
| Earnings Management | 120 | -4.283 | .741 | -.14433 | .686766 |
| Top Management Team | 120 | 0 | 1 | .22 | .419 |
| Firm Size | 120 | 11.546 | 19.005 | 14.74259 | 1.631158 |
| Leverage | 120 | .345 | 9.219 | 3.02625 | 1.793529 |
| Valid N (listwise) | 120 | | | | |

Based on Table 2, the results of the descriptive statistical test for the Top Management Team variable are as follows: minimum value = 0.00, maximum value = 1.00, mean = -0.22, and standard deviation = 0.419. Considering the standard deviation is greater than the mean, the data used for the Top Management Team variable exhibits a wide dispersion.

For the Firm Size variable: minimum value = 11.546, maximum value = 19.005, mean = 14.742, and standard deviation = 1.631. Since the standard deviation is smaller than the mean, the data used for the Firm Size variable shows a narrow dispersion. For the Leverage variable: minimum value = 0.345, maximum value = 9.219, mean = 3.026, and standard deviation = 1.793. With the standard deviation being smaller than the mean, the data used for the Leverage variable also demonstrates a narrow dispersion. For the Earnings Management (*Y*) variable, based on the descriptive analysis: minimum value = -4.283, maximum value = 0.741, mean = -0.14433, and standard deviation = 0.686. Observing the standard deviation being greater than the mean indicates that the data used for the Earnings Management variable has a wide dispersion.

Model Fit Test

Table 3. Conclusion of Panel Data Regression Model Testing

| No | Method | Testing | Result |
|----|--------------|--|---------------------|
| 1 | Chow Test | <i>Common Effect Dengan Fixed Effect</i> | <i>Fixed Effect</i> |
| 2 | Hausman Test | <i>Fixed Effect Dengan Random Effect</i> | <i>Fixed Effect</i> |

Based on pairwise testing of the three panel data regression models using the Chow test and Hausman test, it can be concluded that the fixed effect model is the appropriate choice. Therefore, Lagrange multiplier testing is unnecessary, as the results of both tests

consistently indicate the suitability of the panel data regression model used for further analysis in this study.

Classical Assumption Test

a. Normality Test

The significance value (Sig) is 0.456. Since $0.456 > 0.05$, the residuals are normally distributed.

b. Multicollinearity Test

The Prob.chi-square value is $0.0003 < 0.05$, indicating no multicollinearity issues in the regression equation.

c. Autocorrelation Test

The Durbin-Watson value is 2.240528. According to the Durbin-Watson table, there is no autocorrelation if $du < d < 4-du$. Given that $1.7364 < 2.240528 < 2.2636$, it can be concluded that the regression model does not exhibit autocorrelation.

d. Heteroscedasticity Test

The probability value of the prob chi-square is $0.0137 < 0.05$, indicating that H_0 is accepted, meaning there is no heteroscedasticity in the regression model.

Regression Analysis Test

Table 4. Results of Regression Analysis Test

| | | | | |
|--|-------------|--------------------|-------------|--------|
| Dependent Variable: MANAJEMEN_LABA | | | | |
| Method: Panel Least Squares | | | | |
| Date: 24/12/24 Time: 17:27 | | | | |
| Sample: 2017 2021 | | | | |
| Periods included: 5 | | | | |
| Cross-sections included: 20 | | | | |
| Total panel (balanced) observations: 100 | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -0.254343 | 0.489846 | -0.519229 | 0.6051 |
| TMP | 0.119241 | 0.054495 | 2.188098 | 0.0317 |
| SIZE | 0.015240 | 0.032423 | 0.470058 | 0.6396 |
| LEV | 0.017087 | 0.008964 | 1.906180 | 0.0604 |
| Effects Specification | | | | |
| Cross-section fixed (dummy variables) | | | | |
| Root MSE | 0.051041 | R-squared | 0.508391 | |
| Mean dependent var | 0.040487 | Adjusted R-squared | 0.367931 | |
| S.D. dependent var | 0.073163 | S.E. of regression | 0.058166 | |
| Akaike info criterion | -2.652383 | Sum squared resid | 0.260516 | |
| Schwarz criterion | -2.053194 | Log likelihood | 155.6192 | |
| Hannan-Quinn criter. | -2.409881 | F-statistic | 3.619478 | |
| Durbin-Watson stat | 2.240528 | Prob(F-statistic) | 0.000015 | |

Source: Data processed using EViews 12

Multiple linear regression analysis is a study of the dependence of a dependent variable on one or more independent variables, aiming to estimate or predict the population mean or the average value of the dependent variable based on the known independent variables. Based on Table 4, the multiple linear regression equation is as follows:

$$DACC_{it} = -0.254 + 0.119TMP_{it} + 0.015SIZE_{it} + 0.017LEV_{it} + \varepsilon$$

Description:

| | |
|---------|--|
| DACC | : Earnings Management |
| TMP | : Top Management Team |
| SIZE | : Firm Size |
| LEV | : Leverage |
| 0 | : Intercept |
| 1, 2, 3 | : Regression coefficients for each independent variable |
| E | : Error (5% = 0.05) |
| I | : Number of observations (cross-section); 20 manufacturing companies |
| T | : Number of time-series data points (2017-2021) |

Based on the regression equation, the interpretation is as follows:

- The constant (α) of -0.254 indicates that if the top management team, firm size, leverage, and audit quality are constant or zero, the earnings management value will be -0.254.
- The top management team has a regression coefficient of 0.119. This indicates a positive relationship between the top management team and earnings management. In other words, if the top management team increases by one unit, earnings management will increase by 0.119, assuming firm size, leverage, and audit quality are constant or zero.
- Firm size has a regression coefficient of 0.015. This indicates a positive relationship between firm size and earnings management. In other words, if firm size increases by one unit, earnings management will increase by 0.015, assuming the values of the top management team, leverage, and audit quality are constant or zero.
- Leverage has a regression coefficient of 0.017. This indicates a positive relationship between leverage and earnings management. In other words, if leverage increases by one unit, earnings management will increase by 0.017, assuming the values of the top management team, firm size, and audit quality are constant or zero.

Based on the t-test results in Table 4, the following interpretations can be made:

- The first hypothesis in this study is that the top management team influences earnings management. Based on the table, the regression coefficient for the top management team is positive at 0.119, the t-statistic value is 2.188 > t-table 1.985, and the significance value is 0.03 < 0.05. Therefore, H₀ is rejected, and the hypothesis is accepted. This means there is a significant influence of the top management team on earnings management.
- The second hypothesis in this study is that firm size influences earnings management. Based on the table, the regression coefficient for firm size is positive at 0.0152, the t-statistic value is 0.470 < t-table 1.985, and the significance value is 0.639 > 0.05.

Therefore, H₀ is not rejected, and the hypothesis is not accepted. This indicates that there is no significant influence of firm size on earnings management.

- c. The third hypothesis in this study is that leverage influences earnings management. Based on the table, the regression coefficient for leverage is positive at 0.017, the t-statistic value is $1.906 < t\text{-table } 1.985$, and the significance value is $0.06 > 0.05$. Therefore, H₀ is not rejected, and the hypothesis is not accepted. This indicates that there is no significant influence of leverage on earnings management.

Model Feasibility Test (F-Test)

Based on the fixed effect model testing, the F-statistic value is $3.619478 > F\text{-table } 2.467$, with a probability of $0.000015 < 0.05$. This result indicates that the independent variables jointly influence earnings management, making the panel data regression model feasible or capable of explaining the dependent variable.

Coefficient of Determination (R²)

The fixed effect model testing results show an Adjusted R-squared value of 0.367931. This means that all independent variables, including the top management team, firm size, and leverage, can explain 36.79% of the variance in the dependent variable, earnings management. The remaining 63.21% indicates that other variables not included in this regression model may explain variations in earnings management.

Discussion Results

Top Management Team

Based on the hypothesis testing, it was found that the top management team variable has a positive influence on earnings management. This result supports the first hypothesis, indicating that companies with highly educated top management teams, such as those with master's degrees or CPA credentials, are more knowledgeable and skilled in accounting procedures related to financial statements, making them more capable of engaging in accrual-based earnings management. In contrast, managers with lower education levels face challenges in practicing accrual-based earnings management and tend to meet profit targets through real earnings management practices.

Hambrick and Mason's Upper Echelon Theory states that education level reflects a manager's ability and skills (Abatecola & Cristofaro, 2018). Generally, managers with higher education levels possess greater cognitive complexity and abilities to absorb new ideas and implement advanced strategies. These managers are also more capable of selecting alternative solutions to address organizational issues and make better decisions due to their superior cognitive abilities in processing and analyzing information (Ali & Zhang, 2015). Furthermore, managers with higher education levels tend to focus more on the company's long-term business performance. Li et al. (2016) demonstrated that Chinese companies led by board chairpersons with higher education levels achieved better financial performance. These findings are supported by research from Pricilla (2020) and Baatwah et al. (2020), which concluded that the top management team significantly influences earnings management.

Firm Size

The hypothesis testing revealed that firm size does not positively influence earnings management. This result relates to total assets as an indicator for determining a company's size. However, in this case, the size of the company, as measured by total assets, does not affect earnings management because total assets are not the only factor considered by investors in making investment decisions. Other factors, such as profitability or future prospects, are often more critical. Additionally, the lack of influence of firm size on earnings management may be attributed to stringent monitoring by various stakeholders, such as the government, investors, or auditors, which restricts companies from engaging in earnings management to maintain a good corporate image and attract investors. This finding aligns with the research of Wulandari and Suganda (2021), who found no significant relationship between firm size and earnings management.

Leverage

The hypothesis testing showed that leverage does not positively influence earnings management. Leverage ratios are used to measure the extent to which companies rely on debt to finance their assets. In this study, leverage does not affect earnings management because the level of leverage is not a primary factor prompting companies to engage in earnings management. Auditing can help manage errors within the company, such as identifying high leverage levels caused by poor financial management or ineffective strategies. Through the auditing process, these errors can be rectified. Consequently, when management attempts to engage in earnings management, strict auditor oversight limits such practices, enabling the company to improve its performance and maintain a good reputation with shareholders and the public. This finding is consistent with the studies of Asyati & Farida (2020) and Wulandari & Suganda (2021), which also demonstrated that leverage does not significantly influence earnings management.

CONCLUSION

The conclusion of this study reveals that the top management team (TMT) has a significant influence on earnings management practices. This indicates that the educational background and managerial expertise of top management team members play a critical role in shaping their ability to manage financial reports, particularly through accrual-based earnings management practices. On the other hand, firm size does not show a significant influence on earnings management. Although larger companies typically have greater financial flexibility, the findings suggest that other factors, such as external monitoring and profitability prospects, may have a more substantial impact in constraining or encouraging such practices. Additionally, leverage does not exhibit a significant effect on earnings management. These findings suggest that the level of corporate debt is not a primary driver of earnings management, especially in contexts where strict oversight by auditors and regulators is in place. Thus, this study underscores the importance of the quality of human resources, particularly at the top management level, in influencing earnings management practices, while the variables of firm size and leverage require further exploration to better understand their dynamics and impacts.

REFERENCE

- Abatecola, G., & Cristofaro, M. (2018). Hambrick and Mason's Upper Echelons Theory: Evolution and open avenues. *Journal of Management & Organization*, 24(4), 456–469. <https://doi.org/10.1017/jmo.2018.5>
- Andriansyah, & Sugiyanto. (2021). The effect of tax planning, company size, and information asymmetries on earnings management. *Humanities, Management and Science Proceedings*, 2(1).
- Asyati, & Farida. (2020). The influence of good corporate governance, leverage, profitability, and audit quality on earnings management practices (Empirical study of manufacturing companies listed on the Stock Exchange for the 2014–2018 period). *Journal of Economic, Management, Accounting, and Technology*, 3(1).
- Atmaja. (2018). *Teori dan Praktek Manajemen Keuangan*. Yogyakarta: ANDI.
- Ayu, & Anggita. (2017). Pengaruh ukuran perusahaan dan leverage terhadap manajemen laba. *Jurnal FIPA*, 5(1), 202–229.
- Ayu, Juanda, & Jati. (2019). Pengaruh asimetri informasi dan leverage terhadap manajemen laba pada perusahaan pertambangan yang terdaftar di Bursa Efek Indonesia tahun 2016–2018. *Jurnal Akademi Akuntansi*, 2(1).
- Baatwah, S. (2020). Religiosity at the top: Does it interact with accounting expertise to limit real earnings management? *International Symposia in Economic Theory and Econometrics*, 28, 103–113. <https://doi.org/10.1108/S1571-038620200000028008>
- Bambang. (2017). *Dasar-Dasar Pembelanjaan Perusahaan* (4th ed.). Yogyakarta: BPF.
- Bassiouny, A. (2016). The impact of firm characteristics on earnings management: An empirical study on the listed firms in Egypt. *Journal of Business and Retail Management Research*, 20(3), 34–45.
- Febyani, & Devie. (2017). The effect of managerial ownership on firm value through earnings management. *Business Accounting Review*, 5(2), 756–768.
- Fridayana, & Priyadi, M. P. (2018). Pengaruh asimetri informasi, ukuran perusahaan, leverage terhadap manajemen laba. *Jurnal Ilmu dan Riset Akuntansi*, 2(1), 246–258.
- Ghozali, I., & Ratmono, D. (2018). *Analisis Multivariat dan Ekonometrika dengan EvIEWS 10*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hanafi, M. M., & Halim, A. (2016). *Analisis Laporan Keuangan* (5th ed.). Yogyakarta: UPP STIM YKPN.
- Himawan, A. (2022). Analisis pengaruh good corporate governance, leverage, dan ukuran perusahaan terhadap manajemen laba dengan kualitas audit sebagai variabel pemoderasi. *Jurnal Manajemen Bisnis*, 25(2).
- Houston, J. (2019). *Dasar-dasar Manajemen Keuangan*. Jakarta: Salemba Empat.
- Jati, Juanda, & Ayu. (2019). Pengaruh asimetri informasi dan leverage terhadap manajemen laba pada perusahaan pertambangan yang terdaftar di Bursa Efek Indonesia tahun 2016–2018. *Jurnal Akademi Akuntansi*, 2(1).
- Jayatri, A., & Nyoman, A. (2016). Pengaruh asimetri informasi, leverage, dan kepemilikan manajerial pada manajemen laba. *E-Jurnal Akuntansi Universitas Udayana*, 2(1), 200–226.

- Kasmir. (2018). *Analisis Laporan Keuangan*. Jakarta: PT RajaGrafindo Persada.
- Kholis, A., Evodila, S., & Erlina. (2020). *International Symposia in Economic Theory and Econometrics. Jurnal Mantik*, 1734–1745.
- Lodovicus, L. (2017). The effect of information asymmetry on earnings management. *Journal of Economics and Business Studies*, 16(2).
- Medyawati, H., & Astri. (2016). Pengaruh ukuran perusahaan terhadap manajemen laba. *Jurnal Ekonomi Bisnis*, 2(3).
- Moghaddam, A., & Moghaddam, Z. (2017). The effect of leverage and liquidity ratios on earnings management. *International Review of Management and Marketing*, 7(4), 99–107.
- Mulford, C., & Comiskey, E. (2016). *The Financial Number Game: Detecting creative accounting practices*. Hoboken, NJ: Wiley.
- Murhadi, W. (2017). *Analisis Laporan Keuangan, Proyeksi, dan Valuasi Saham*. Jakarta: Salemba Empat.
- Nasir, N., Razzaque, M., & Ahmed, F. (2018). Real earnings management and financial reporting quality. *International Journal of Accounting and Finance*, 2(1), 508–526.
- Nasution, N., & Putri, D. (2019). The effect of asymmetry information and corporate governance mechanism on earning management in companies listed in the Islamic Index Period of Jakarta 2015–2018. *Advances in Economics, Business and Management Research*, 127(2).
- Nengzih. (2019). The influence of corporate governance, tax avoidance, leverage, and company size on earnings management: Empirical study from Indonesia's banking companies 2015–2017. *Scholars Middle East Publishers*, 2(1).
- Nuryana, Y., & Surjandari, D. A. (2019). The effect of bonus compensation and leverage on earnings management with financial performance as an intervening variable. *Global Journal of Management and Business Research*, 6(1).
- Priscilla, M., & Siregar, S. (2020). The effect of top management team expertise on corporate's accrual and real earnings management. *International Symposia in Economic Theory and Econometrics*, 79–101.
- Purba, G. K., & Umboh, V. B. (2021). Earnings management practices of family and non-family entities. *Jurnal Akuntansi Multiparadigma*, 12(1).
- Rusci, V. A., Santosa, S., & Fitriani, V. E. (2021). Financial distress and earnings management in Indonesia: The role of independent commissioners. *JIAFE (Jurnal Ilmiah Akuntansi Fakultas Ekonomi)*, 7(1).
- Sartono, A. (2017). *Manajemen Keuangan dan Teori Aplikasi*. Yogyakarta: BPFE.
- Sekaran, U. (2019). *Metodologi Penelitian untuk Bisnis* (5th ed.). Jakarta: Salemba Empat.
- Sulistyanto, S. (2008). *Manajemen Laba: Teori dan Model Empiris*. Jakarta: Grasindo.
- Supriyono. (2018). *Akuntansi Keprilakuan*. Yogyakarta: Gajah Mada University Press.
- Surjandari, D. A. (2021). The effect of good corporate governance, leverage, firm size on earning management evidence from Indonesia. *International Journal of Commerce and Finance*, 7(2), 165–183.

- Sutrisno, K., & Endang, W. (2019). Impact of leverage and firm size on earnings management in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 6(1).
- Syamsuddin. (2017). *Manajemen Keuangan Perusahaan*. Jakarta: PT Raja Grafindo Persada.
- Tulacanaza, E., Prieto, D., & Koo, M. (2020). Effect of leverage on real earnings management: Evidence from Korea. *Sustainability*, 12(6).
- Waluyo. (2017). Firm size, firm age, and firm growth on corporate performance. *European Research Studies Journal*, 360–369.
- Wulandari, S., & Suganda, A. D. (2021). Determining factors of earnings management based on the accrual model. *Jurnal Akuntansi dan Auditing Indonesia*, 25(1).
- Yanuar, D., Natasya, T., & Brigitta, S. (2018). Factors affecting earnings management of public companies. *Journal of Applied Finance and Accounting*, 3(1), 60–74.
- Yofi, & Elly. (2018). Pengaruh ukuran perusahaan, umur perusahaan, leverage, dan profitabilitas terhadap manajemen laba. *Jurnal Aset (Akuntansi Riset)*, 10(1), 63–74.