

**THE EFFECT OF COMPANY SIZE AND FINANCIAL
PERFORMANCE ON EARNINGS MANAGEMENT**
(Empirical Study of Mining Companies Listed on the Indonesia Stock Exchange
for the Period 2016-2021)

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Abstract

In the context of the expanding economy in Indonesia, the management of companies faces increased competition, necessitating effective strategies to stay competitive. Financial reports play a crucial role in evaluating a company's performance and aiding decision-making processes for both management and investors. Among the essential elements used to assess management performance in financial statements is profit, presented in the profit/loss statement. This study aims to provide empirical evidence on the effect of firm size and financial performance, proxied by profitability and leverage, on earnings management in mining companies listed on the Indonesia Stock Exchange during the period of 2016-2021. The research adopts a quantitative approach and utilizes secondary data from the selected mining companies. The population comprises mining companies listed on the Indonesia Stock Exchange, and the sample is obtained through purposive sampling, resulting in 66 data points from 11 companies over a 6-year period. Data analysis involves multiple linear regression, descriptive statistical tests, panel data regression model analysis, Common Effect Model selection test, classical assumption test, and multiple linear testing using Eviews version 11 for data processing. The research findings indicate that when considered together, Company Size and Financial Performance, represented by Profitability and Leverage, have a significant impact on Earnings Management. Specifically, Financial Performance, proxied by Profitability, is found to exert a notable effect on Earnings Management. However, the study reveals that Firm Size and Financial Performance, proxied by Leverage, do not significantly influence Earnings Management.

Keywords: Company Size, Earnings Management, Financial Performance

1. INTRODUCTION

As the Indonesian economy continues to grow, managers are faced with increasing opportunities to develop their companies. The rising competition in the business landscape compels each company's management to adopt competitive strategies to face their rivals. Consequently, effective performance management becomes essential for every company. Financial reports serve as crucial tools to assess a company's performance, as they provide information related to its performance, financial position, and changes in financial position, aiding decision-making processes. Management utilizes financial reports to make informed decisions for the company's growth, while investors rely on them to decide whether to invest in the company or not.

Among the essential elements used to measure management performance in financial statements, profit stands out. The profit/loss statement is a vital component of financial reports, as it offers valuable earnings information that users utilize to evaluate a

company's financial capabilities and performance. Investors and other stakeholders consider earnings information as an indicator of a company's prosperity and the efficient utilization of its funds, reflected in the rate of return (Winingsih, 2017).

However, information asymmetry and investors' keen interest in earnings information as a parameter of company performance motivate management to manipulate financial statements in pursuit of desired profits. This management behavior is commonly known as earnings management. It refers to the management's actions during the preparation of external financial reporting, where they have the opportunity to increase, decrease, or manipulate profits for personal gain (Puspitasari & Sapari, 2019).

Several factors influence earnings management, notably company size and financial performance (Citra et al., 2021). Larger companies face greater scrutiny, making it challenging for managers to freely engage in earnings management. On the other hand, implementing earnings management can lead to improved financial performance, influencing investor decisions to invest in the company.

To shed light on the factors influencing earnings management, we delve into the literature review, starting with the agency theory. This theory explores the relationship between principals (shareholders or investors) and agents (management) within a company, where conflicts of interest may lead to earnings management (Jensen & Meckling, 1976).

Earnings management involves deliberate manipulation of earnings reports to create a favorable image of company performance and secure personal benefits (Santana, D.K.W Wirakusuma, 2016; Oktavianna & Prasetya, 2021). Furthermore, we examine the impact of company size, as reflected by total assets, on earnings management practices. Smaller companies may resort to earnings management to attract potential investors, while larger companies tend to be more cautious in their financial reporting (Manggau, 2016; Restuwulan, 2013).

Financial performance, compliance with financial standards, and the achievement of financial goals play a significant role in influencing earnings management practices, assessed through financial ratio analysis (Fahmi, 2011; Kurniasari, 2014). Moreover, we explore the concept of profitability, measuring a company's ability to generate profits using its resources, as higher profitability ratios can motivate management to engage in earnings management (Sudana, 2019; Selviani, 2017). Lastly, we consider leverage, the relationship between a company's capital and debt, and how it may impact earnings management. Companies with higher leverage may resort to earnings management to meet debt obligations and avoid failure (Harahap, 2013; Bambang, 2001).

In this research, we focus on Mining Companies listed on the Indonesia Stock Exchange, which have unique industrial properties and characteristics distinct from other industries. The mining sector plays a vital role in a country's economic development as it provides essential energy resources required for growth. The study aims to analyze the impact of company size and company performance, proxied by profitability ratio and leverage ratio, on earnings management in mining companies during the period 2016-2021.

2. RESEARCH METHOD

The research is conducted using a quantitative approach, with secondary data as the main source. The data consists of numerical information from the annual financial statements of Mining Companies listed on the Indonesia Stock Exchange, available on the website www.idx.co.id from 2016 to 2021. The study includes a population of 47 companies from this period. The researchers used purposive sampling, a technique that selects samples based on specific considerations and criteria, resulting in a total of 66 samples for the study. To analyze the data, the researchers employed multiple linear regression analysis, following the method proposed by Ghozali & Ratmono (2017).

3. RESULTS AND DISCUSSION

3.1. Research Results

3.1.1. Descriptive Statistical Test

The descriptive statistical test reveals insights into earnings management and other variables in mining companies during the period 2016-2021. Earnings management ranged from a minimum of -0.002820 to a maximum of 0.001945, with an average of -0.000256 and a standard deviation of 0.000975.

Regarding company size, the sampled mining companies had a minimum value of -28.07803 and a maximum value of 28.07803. The average company size was 29.84224 with a standard deviation of 1.042994.

In terms of profitability, the minimum value was 0.001442, while the maximum profitability value was 0.520175. The average profitability in the sample was 0.137729, with a standard deviation of 0.130495.

Regarding leverage, the minimum value observed was 0.053957, and the maximum value was 0.771852. The average leverage in the sampled companies was 0.380680, with a standard deviation of 0.168427.

3.1.2. Panel Data Regression Model

The panel data regression model was employed to examine the relationship between earnings management and the variables under consideration. The results for the common effect model showed the constant value as 0.002789, with regression values of -7.74E-05 for company size (X1), -0.002589 for profitability (X2), and -0.000992 for leverage (X3).

The fixed effect model yielded a constant value of 0.012697, with regression values of -0.000371 for company size (X1), -0.004084 for profitability (X2), and -0.003502 for leverage (X3).

For the random effect model, the constant value remained 0.002789, with regression values of -7.74E-05 for company size (X1), -0.002589 for profitability (X2), and -0.000992 for leverage (X3).

3.1.3. Panel Data Regression Model Selection

To determine the appropriate panel data regression model, the Chow test was performed. The chi-square probability value obtained was 0.4672, indicating that the common effect model is the most suitable choice.

Furthermore, to validate the selection, the lagrange multiplier test was conducted. The cross-section Breusch Pagan value resulted in 0.1208, supporting the use of the common effect model as the right panel data regression model for the analysis.

1) Normality Test

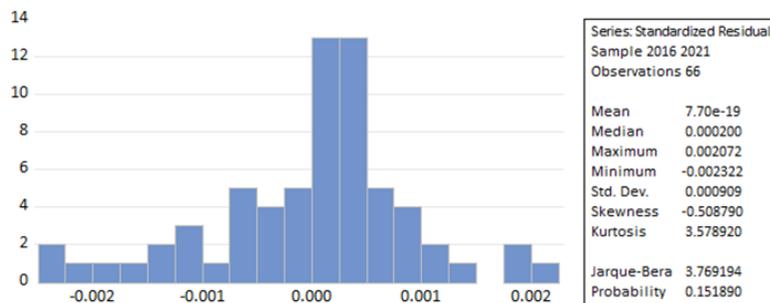


Figure 1. Result of Normality Test

According to the normality test results, the Jarque-Bera probability value is 3.769194 with a probability value of 0.151890, which exceeds the significance level of 0.05. This indicates that the residual data follows a normal distribution.

2) Multicollinearity Test

Table 1. Result of Multicollinearity Test

	X1	X2	X3
X1	1.000000	-0.146045	0.291671
X2	-0.146045	1.000000	-0.209438
X3	0.291671	-0.209438	1.000000

The correlation analysis reveals that each variable has a correlation value below 0.90, indicating the absence of multicollinearity issues. As a result, we can conclude that the regression model is reliable and free from multicollinearity problems.

3) Heteroscedasticity Test

Table 2. Result of Heteroskedasticity Test

F-statistic	1.728394	Prob. F(9,56)	0.1039
Obs*R-squared	14.34782	Prob. Chi-Square(9)	0.1105
Scaled explained SS	16.32636	Prob. Chi-Square(9)	0.0604

Based on the Chi-Square probability value of 0.1105, which is greater than the significance level of 0.05, we can conclude that there is no heteroscedasticity problem present in the data.

4) Autocorrelation Test

Table 3. Result of Autocorrelation Test

F-statistic	1.309670	Prob. F(2,60)	0.2775
Obs*R-squared	2.760751	Prob. Chi-Square(2)	0.2515

With a Chi-Square probability value of 0.2515, which exceeds the significance level of 0.05, we can affirm that the regression model does not exhibit autocorrelation issues. Therefore, the model is deemed suitable and reliable for use in the research analysis.

5) Determination Coefficient Test

Table 4. Result of Determination Coefficient Test (Adjusted R²)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002789	0.003420	0.815545	0.4179
X1	-7.74E-05	0.000116	-0.666694	0.5074
X2	-0.002589	0.000908	-2.850684	0.0059
X3	-0.000992	0.000728	-1.363470	0.1777
Root MSE	0.000902	R-squared		0.131335
Mean dependent var	-0.000256	Adjusted R-squared		0.089303
S.D. dependent var	0.000975	S.E. of regression		0.000930
Akaike info criterion	-11.06325	Sum squared resid		5.37E-05
Schwarz criterion	-10.93054	Log likelihood		369.0871
Hannan-Quinn criter.	-11.01081	F-statistic		3.124631
Durbin-Watson stat	1.822475	Prob(F-statistic)		0.032093

The coefficient of determination test indicates that the obtained value is 0.089303, which translates to 8.93%. This means that 8.93% of the variation in Earnings Management (Y) can be attributed to the two independent variables under investigation - Company Size (X1) and Financial Performance (X2). However, the remaining 91.07% of the variation is influenced by other variables beyond this study.

6) Simultaneous Test (F Test)

Table 5. Simultaneous Test Results (F Test)

Root MSE	0.000902	R-squared	0.131335
Mean dependent var	-0.000256	Adjusted R-squared	0.089303
S.D. dependent var	0.000975	S.E. of regression	0.000930
Akaike info criterion	-11.06325	Sum squared resid	5.37E-05
Schwarz criterion	-10.93054	Log likelihood	369.0871
Hannan-Quinn criter.	-11.01081	F-statistic	3.124631
Durbin-Watson stat	1.822475	Prob(F-statistic)	0.032093

The results of the simultaneous test indicate that the F-statistic or F-count value is 3.124631 with a probability value of 0.032093. To find the critical F-table value, we consider the number of samples (n) = 66, the number of variables (k) = 4, and the significance level (α) = 0.05. Using these values, we calculate $df1 = k - 1$ ($df1 = 4 - 1 = 3$) and $df2 = n - k$ ($df2 = 66 - 4 = 62$), obtaining an F-table value of 2.753.

Since the F-statistic or F-count value (3.124631) is greater than the F-table value (2.753), and the probability value (0.032093) is less than the significance level of 0.05, we accept the alternative hypothesis (H1). This implies that Company Size and Financial Performance, taken together, have a significant impact on Earnings Management.

7) Partial Test (T Test)

Table 6. Result of Partial Test (T Test)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002789	0.003420	0.815545	0.4179
X1	-7.74E-05	0.000116	-0.666694	0.5074
X2	-0.002589	0.000908	-2.850684	0.0059
X3	-0.000992	0.000728	-1.363470	0.1777

a) The Effect of Company Size on Earnings Management

The analysis reveals that the t-statistic value for Company Size is -0.666694, which is less than the t-table value of 1.99834, leading to the acceptance of the null hypothesis (H0). Additionally, the probability value for Company Size is 0.5074, exceeding the significance level of 0.05, resulting in the rejection of the alternative hypothesis (H2). Thus, it can be concluded that, in partial terms, Company Size does not have a significant effect on earnings management.

b) Effect of Profitability on Earnings Management

The t-statistic value for Profitability is -2.850684, surpassing the t-table value of 1.99834, leading to the rejection of the null hypothesis (H0). Moreover, the probability value for Profitability is 0.0059, which is less than the significance level of 0.05, leading to the acceptance of the alternative hypothesis (H3). Consequently, it can be concluded that, in partial terms, Profitability has a significant effect on earnings management.

c) The Effect of Leverage on Earnings Management

The examination indicates that the t-statistic value for Leverage is -1.363470, falling below the t-table value of 1.99834, resulting in the acceptance of the null hypothesis (H0). Furthermore, the probability value for Leverage is 0.1777, exceeding the significance level of 0.05, leading to the rejection of the alternative hypothesis (H4). As a result, it can be concluded that, in partial terms, Leverage does not have a significant effect on earnings management.

3.2. Discussion

3.2.1. Effect of Company Size, Profitability, and Leverage on Earnings Management

The analysis reveals that Company Size, Profitability, and Leverage collectively have a significant impact on Earnings Management. This is evident from the F statistical test, where the F-statistic or F-count value (3.124631) exceeds the F-table value (2.753), and the probability value (0.032093) is lower than the significance level of 0.05. Thus, it can be concluded that these three variables simultaneously influence Earnings Management. Larger companies with easier access to the capital market tend to have less incentive to practice earnings management compared to smaller companies. Larger companies face increased scrutiny from shareholders and outsiders, leading to a reduced tendency for earnings manipulation. These findings align with prior research conducted by (Astria et al., 2021), supporting the notion that Company Size, Leverage, and Profitability collectively impact Earnings Management.

3.2.2. Effect of Company Size on Earnings Management

In terms of Company Size, the analysis suggests that it has no significant effect on Earnings Management. The t-test indicates that the t-statistic value of Company Size (-0.666694) is less than the t-table value (1.99834), and the probability value (0.5074) exceeds the significance level of 0.05. Thus, it can be concluded that Company Size, in partial terms, does not influence Earnings Management. These findings are consistent with previous research conducted by (Fandriani & Tunjung, 2019) and (Paramitha & Idayati, 2020), which also found no significant effect of Company Size on Earnings Management. The diverse views held by different companies might explain this result. While some companies become cautious about earnings management as their total assets increase, others may see it as an opportunity to manipulate earnings or present a stable level of profitability to attract investors.

3.2.3. Effect of Profitability on Earnings Management

Regarding Profitability, the analysis indicates that it has a significant effect on Earnings Management. The t-test shows that the t-statistic value of Profitability (-2.850684) exceeds the t-table value (1.99834), and the probability value (0.0059) is lower than the significance level of 0.05. Thus, it can be concluded that Profitability, in partial terms, influences Earnings Management. Companies with higher profits tend to report smaller profits than their actual earnings to avoid excessive attention from the government and society. They may engage in earnings management to level their profits and present a stable performance to gain investors' confidence. These findings are in line with previous research conducted by (Lusmeida, 2019) and (Cahyono & Widyawati, 2019), supporting the idea that Profitability has a significant impact on Earnings Management.

3.2.4. Effect of Leverage on Earnings Management

For Leverage, the analysis reveals that it has no significant effect on Earnings Management. The t-test indicates that the t-statistic value of Leverage (-1.363470) is less than the t-table value (1.99834), and the probability value (0.1777) exceeds the significance level of 0.05. These results suggest that the level of corporate debt does not significantly influence management's room for maneuver to engage in earnings

management, given the supervision from creditors. Companies with higher leverage, driven by higher debt levels, may manipulate earnings to improve their public image and retain investor interest. However, earnings management cannot be used to evade debt obligations, as fulfillment must still be done regardless of manipulation attempts. These findings align with previous research conducted by (Herrera & Andayani, 2019) and (Astria et al., 2021), which also found no significant effect of Leverage on Earnings Management.

4. CONCLUSION

The findings of the study indicate that Company Size and Financial Performance, represented by Profitability and Leverage, collectively exert a significant influence on Earnings Management in Mining Companies listed on the Indonesia Stock Exchange for the period 2016-2021. This implies that when considering Company Size and Financial Performance together, they can affect Earnings Management. It is plausible that smaller companies with lower profitability and higher leverage may be more inclined to engage in Earnings Management practices.

However, the study also reveals that Company Size alone does not have a significant effect on Earnings Management in the aforementioned companies. Both small and large companies seem to report their financial statements accurately and do not necessarily resort to Earnings Management, suggesting that Company Size may not be a determining factor in this context.

On the other hand, Profitability has a significant impact on Earnings Management. Companies with higher profits are more likely to practice earnings management, particularly in the absence of an effective corporate governance system.

Contrary to expectations, the study finds that Leverage does not have a significant effect on Earnings Management. It appears that the average level of leverage in the studied companies is within safe limits, allowing them to pay off debts using company assets. Consequently, there is little incentive for management to engage in earnings management as the companies are in a healthy financial state and capable of fulfilling their obligations.

REFERENCES

- Astria, S. W., Akhbar, R. T., Apriyanti, E., & Tullah, D. S. (2021). Pengaruh ukuran perusahaan, profitabilitas dan leverage terhadap manajemen laba. *Jurnal Akuntansi*, 10(2), 387–401.
- Bambang, R. (2001). Dasar-dasar pembelanjaan perusahaan. *Edisi Keempat, Cetakan Ketujuh, BPFE Yogyakarta, Yogyakarta*, 59.
- Cahyono, B., & Widyawati, D. (2019). Pengaruh asimetri informasi, ukuran perusahaan, profitabilitas terhadap manajemen laba. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 8(1), 1–14.
- Citra, K., Faisal, Y., Wibisono, C., & Sari, E. G. (2021). The Effect Of Capital Adequacy, Liquidity And Firm Size On Earnings Management With Corporate Governance As Moderating Variables In Conventional Banking Listed On Idx 2015–2019. *Cashflow: Current Advanced Research On Sharia Finance And Economic*

- Worldwide*, 1(1), 33–49.
- Fahmi, I. (2011). Analisis laporan Keuangan, Cetakan Kesatu. *Lampulo: Alfabeta*.
- Fandriani, V., & Tunjung, H. (2019). Pengaruh Profitabilitas, Leverage, Ukuran Perusahaan, Dan Kualitas Audit Terhadap Manajemen Laba. *Jurnal Paradigma Akuntansi*, 1(2), 505–514.
- Ghozali, I., & Ratmono, D. (2017). *Analisis multivariat dan ekonometrika: teori, konsep, dan aplikasi dengan eview 10*.
- Harahap, S. S. (2013). Analisis kritis atas laporan keuangan edisi 11. *Jakarta: Rajawali Pers*.
- Herrera, O., & Andayani, A. (2019). Pengaruh Struktur Kepemilikan dan Kinerja Keuangan Terhadap Manajemen Laba. *Jurnal Ilmu dan Riset Akuntansi (JIRA)*, 8(3), 1–17.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305–360.
- Kasmir, K. (2016). Pengantar Manajemen Keuangan: Edisi Kedua. *Jakarta: Prenada Media Group*.
- Kurniasari. (2014). *Analisis laporan keuangan: Konsep & aplikasi*.
- Lusmeida, H. (2019). Determinan Good Corporate Governance Dan Kinerja Keuangan Terhadap Manajemen Laba Pada Perusahaan Manufaktur. *Journal of Business and Entrepreneurship*, 7(2), 1–11.
- Manggau, A. W. (2016). Pengaruh asimetri informasi dan ukuran perusahaan terhadap manajemen laba pada perusahaan pertambangan yang terdapat di bursa efek indonesia. *Akuntabel*, 13(2), 103–114.
- Oktavianna, R., & Prasetya, E. R. (2021). Analisis Manajemen Laba yang Dipengaruhi oleh Komite Audit dan Firm Size Perusahaan LQ 45 Tahun 2015-2019. *Jurnal Ilmiah Akuntansi Universitas Pamulang*, 9(1), 54–64.
- Paramitha, D. K., & Idayati, F. (2020). Pengaruh profitabilitas, likuiditas, ukuran perusahaan terhadap manajemen laba. *Jurnal Ilmu Dan Riset Akuntansi (JIRA)*, 9(2), 1–18.
- Puspitasari, V., & Sapari, S. (2019). Pengaruh Mekanisme Corporate Governance, Profitabilitas, Ukuran Perusahaan, dan Leverage Terhadap Manajemen Laba. *Jurnal Ilmu dan Riset Akuntansi (JIRA)*, 8(3).
- Restuwulan. (2013). Pengaruh Asimetri Informasi dan Ukuran perusahaan Terhadap Manajemen Laba Pada Perusahaan Sektor Industri Food and Beverages yang terdapat di BEI. *Universitas Widyatama*.
- Santana, D.K.W Wirakusuma, M. G. (2016). Pengaruh perencanaan pajak, Kepemilikan Manajerial dan Ukuran Perusahaan Terhadap manajemen Laba. *E- Jurnal Akuntansi Universitas Udayana*, 14(3), 1555-1583.
- Selviani, A. H. (2017). Pengaruh Profitabilitas, Leverage dan Ukuran Perusahaan terhadap Manajemen Laba. *Skripsi Universitas Sanata Dharma Yogyakarta*.
- Sudana, I. M. (2019). *Manajemen keuangan teori dan praktik*. Airlangga University Press.

Winingsih. (2017). *Pengaruh Free Cash Flow, Leverage, Likuiditas, Profitabilitas, Dan Ukuran Perusahaan Terhadap Manajemen Laba (Studi Empiris pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Periode 2012-2015)*. Universitas Muhammadiyah Surakarta.

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