PERWIRA
Jurnal Pendidikan Kewirausahaan Indonesia

The Effect of Sales Growth, Profitability, and Leverage on Earnings Management

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ARTICLE INFO	ABSTRACT
Keyword: Earnings management Sales growth Profitability Leverage Coal mining companies	*The purpose of this study is to examine the effect of sales growth, profitability, and leverage on earnings management by using companies in coal mining sector registered on Indonesian Stock Exchange (IDX) for the period of 2017 to 2020. This research uses purposive sampling methods with predetermined criteria. The samples used in this study are 20 companies with a total sample of 80 data. This study is analysed using panel data regression in Eviews 10. The results demonstrate that sales growth and leverage partially have a significant effect on earnings management, while profitability has no significant effect on earnings management. Furthermore, sales growth, profitability and leverage simultaneously and significantly affect earnings management.*
Kata Kunci: Manajemen Laba Pertumbuhan Penjualan Profitabilitas Manfaat Perusahaan Pertambangan Batubara	SARI PATI
	Tujuan penelitian ini adalah untuk menguji pengaruh pertumbuhan penjualan, profitabilitas, dan terhadap manajemen laba dengan menggunakan perusahaan sektor pertambangan batubara yang terdaftar di Bursa Efek Indonesia (BEI) periode tahun 2017 sampai 2020. Penelitian ini menggunakan metode dengan kriteria yang telah ditentukan. Sampel yang digunakan dalam penelitian ini adalah 20 perusahaan dengan total sampel 80 data. Penelitian ini dianalisis dengan menggunakan pendekatan regresi panel data Eviews 10. Hasil penelitian menunjukkan bahwa pertumbuhan penjualan dan secara parsial berpengaruh signifikan terhadap manajemen laba, sedangkan profitabilitas tidak berpengaruh signifikan terhadap manajemen laba. Selanjutnya pertumbuhan penjualan, profitabilitas dan secara simultan dan signifikan berpengaruh terhadap manajemen laba.
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INTRODUCTION

Financial reports are a useful source that provides stakeholders with information about a firm's financial position and performance. Five main statements that are important in assessing the firm's financial performance: the income statement, balance sheet, statement of cash flow, statement of owner's equity, and notes to the financial statements. These statements are disseminated to inform the public about the status and earnings performance of the company. The provision of this information serves to reduce information asymmetry and allows stakeholders to make informed decisions. Therefore, it is imperative that the information showed in financial statements or annual reports is precise, relevant, and reliable.

The escalation of business competition in various industries has led to increased illicit activities, including falsifying a firm's financial records. It is possible for management to manipulate financial data to present a more positive image to the stakeholders, which can result in misleading information. El Diri (2018) posits that earnings management can encompass aggressive and conservative accounting practices within the confines of established regulations, often observed towards the conclusion of the fiscal year. For example, it is possible that projections for specific provisions may be subject to upward or downward revisions, and the timing of sales may be advanced or postponed, resulting in a potential increase or decrease in reported profits.

Recently, there has been a heightened focus from both regulatory bodies and the general public on the practice of earnings management. The global mining industry was taken aback by the recent developments regarding the purported financial misconduct within the Adani Group, as revealed in the report published by Hindenburg Research in January 2023. The research findings indicate that the Adani Group has been involved in accounting fraud and stock manipulation for an extended period. According to Hindenburg Research (2023), seven publicly traded companies within the Adani Group are overvalued by 85 percent. The report also highlights the group's reliance on excessive leverage which raises concerns about the group's capacity to meet its financial obligations and could potentially jeopardize the interests of its creditors.

In Indonesia, The Indonesia Fraud Survey 2019 revealed that the total losses incurred due to fraudulent activities in the country amounted to Rp873.430.000.000. Among these losses, financial report fraud accounted for Rp242.260.000.000. The survey findings reveal that the four common fraud disclosure media are reports (38.9 percent), internal audits (23.4 percent), others (15.1 percent), and external audits (9.6 percent) (Association of Certified Fraud Examiners, 2020). Additionally, based on the Indonesia Corruption Watch (ICW), three allegations of practices conducted by companies involved in the exportation of mineral resources that may lead to financial losses for the nation. The ICW has identified a potential for undocumented coal export transactions amounting to US$27,062 billion or Rp365.3 trillion. It led to a country loss of Rp133.6 trillion during 2006 – 2016 (Ilyas, et al, 2018).

The concept of earnings management pertains to the strategic selection of accounting methods for specific transactions or the implementation of economic decisions that could potentially impact a company's cash flow, investments, or output. Both of these initiatives aim to improve the profitability reflected in the financial

statements and, ultimately, stakeholders' perceptions regarding the accounting figures (El Diri, 2018).

Sincerre et al. (2016) revealed that firms with higher debt, profitability, and sales growth ratios exhibit greater earnings management. According to Edison and Nugroho (2020), companies that experience higher growth are incentivized to preserve their elevated valuations and sustain their positive trends in profits and sales. Moreover, it has been found that profitability is positively correlated with profit manipulation, as evidenced by the study conducted by Dang et al. (2017). According to Alexander and Hengky (2017), firms that exhibit higher levels of profitability are more prone to engaging in earnings manipulation practices to enhance their financial performance, thereby resulting in larger bonuses for their managers. Furthermore, in cases where companies have substantial leverage, managers may engage in earnings management practices due to the pressure to present a positive financial report and avoid violating debt covenants (Asim and Ismail, 2019; Ruwanti and Chandrarin, 2019).

Based on explanation above, this study aims to investigate how sales growth, profitability, and leverage affect earnings management in Coal Mining Companies that are listed on the Indonesian Stock Exchange from 2017 to 2020. This study aims to integrate multiple previously examined variables, including sales growth, profitability, leverage, and earnings management. This research distinguishes itself from the previous ones by its distinct sampling period and industry sector.

LITERATURE REVIEW
Earnings management
Jensen and Meckling (1976) present a comprehensive definition of an agency relationship as a legally binding agreement in which one or more parties, referred to as principals, appoint an individual, known as the agent, to carry out specific tasks on their behalf and transfer decision-making authority to the agent. The authors provide additional clarification that significant evidence indicates that the agent may not consistently prioritize the principal's best interest when both parties involved in their association are primarily concerned with maximizing their individual utility. The interest conflict between the principal and the agent is reflected in the management of earnings, as highlighted by El Diri (2018).

Asim and Ismail (2019) provide a definition of earnings management as the intentional manipulation of financial statements in order to present a specific level of earnings, with the objective of meeting the expectations of shareholders or accomplishing organizational goals. Mangala and Dhanda (2019) also states that managers wield their discretionary authority over accounting information and resort to profit manipulation to achieve their desired goals.

The research undertaken by Wasan and Mulchandani (2020) in India has demonstrated that companies are motivated to involve in earnings management as a result of the market's positive and robust response to increased profits. The limitation in the shareholders' comprehension of management decisions is based on the bounded rationality theory, and/or issues in communicating information to the shareholders are based on the theory of information asymmetry (El Diri, 2018).

This is consistent with Li et al. (2020)'s argument that information asymmetry can

impact significantly on a company's earnings management. This is because market investors may lack the ability to comprehensively monitor the actions of managers or identify any instances of earnings manipulation. Hence, information asymmetry between top management and external stakeholders is particularly inclined to act opportunistically in managing their profits.

Walker (2013) describes Earnings management can be defined as the utilization of managerial discretion in the process of accounting, earnings reporting, and real economic decisions, which can impact the presentation of underlying economic events in one or multiple earnings indicators. Even though Walker's definition of earnings management does not cover fraudulent accounting activities, he points out that high levels of earnings management frequently precede fraud. Wasan and Mulchandani (2019) also described earnings management as the deliberate manipulation of financial or accounting information. When given a scenario where there is an opportunity for earnings management, Coram et al., (2022) found that a considerable proportion of managers reported their willingness to engage in earnings management.

Bui and Le (2021) further define Earnings management refers to the act of employing accounting methods to manipulate financial statements in order to present an exaggerated depiction of a company's business performance and financial position. This practice takes advantage of how accounting rules are applied to produce financial statements that either overstate or stabilize profits. This phenomenon has been observed in various industries and has significant implications for financial reporting and decision-making.

Sales Growth and Earnings Management

The correlation between sales growth and earnings management has been extensively studied in scholarly literature. Sales growth is a crucial financial metric that is closely monitored by various stakeholders, such as investors, analysts, and managers. High sales growth is frequently seen as being favorably connected with a company's performance (Ahmed and Hadi, 2017) and can result in greater stock prices (Nuridah, et al., 2022). High sales growth does, however, increase the likelihood of managing earnings, according to certain studies.

According to Sincerre (2016), the level of earnings management and sales growth had a positive and significant relationship. Companies experiencing high growth may be more inclined to involve in earnings management due to the increased pressure to meet analyst expectations and secure financing (Collin et al., 2016). Potharla and Shette (2022) arrived at similar findings, indicating that sales growth has a positive and significant impact on real earnings management. The findings of this study imply that firms experiencing higher sales growth tend to exhibit larger accruals and lower cash flows. Consequently, such firms may be motivated to involve in real earnings management practices to artificially inflate their cash flows.

Additionally, Das and Jena (2016) and Lassoud and Khanchel (2021) have found that there is a positive association between earnings management and increased sales growth. Firms that encounter rapid sales growth are more likely to employ earnings management techniques to satisfy their dividend payout obligation (Welker and Zhang, 2017).

Profitability and Earnings Management

Profitability is considered one of the key indicators of a company's overall health and potential for future growth. Dewi and Suryanawa (2019) explicated that profitability is one of the manager's motivations to embellish the profits presented in financial statements This is because the level of profitability reflects the effectiveness of management in utilizing the capital provided by the shareholders.

Purnama (2017) explains that profitability is associated with the hypothesis of a bonus plan, as an increase in profitability indicates better managerial performance, resulting in a higher bonus for the manager. When evaluating a company's capacity to generate profits efficiently, it is common to compute two profitability ratios: Return on Equity (ROE) and Return on Assets (ROA). ROE reflects the extent to which capital performance generates profit. The higher the ROE, the more efficient the capital's performance in generating profit. ROA. Meanwhile, Return on Assets (ROA) is a profitability metric that discloses the level of profitability a company generates concerning its assets. The pursuit of high profitability may incentivize managers to engage in opportunistic behaviour, leading them to manipulate earnings to achieve specific objectives (Asim and Ismail, 2019). The management of earnings is positively impacted by profitability (ROA) as it indicats that when profitability rises, a company's chances of managing its earnings rise as well (Alexander and Hengky, 2017).

Tran and Dang (2021) state that there is a positive and significant correlation between the degree of earnings management and profitability, as gauged by Return on Assets (ROA). Managers frequently use the technique of smoothing profit margins across accounting periods to maintain a consistent profit trend over the long run. This strategy is often implemented when there is a recognition of the potential for not meeting the profit plan for the current year. Dang (2017) also found that there is a positive association between earnings manipulations and ROA in his study on factors affecting earnings management in listed enterprises in Vietnam. This is also confirmed by Purnama and Nurdiniah (2019) that earnings management increases when profitability increases as companies strive to maintain profitability and reputation.

Kalbuana, et al. (2022) shows that there is a relationship between earnings management and profitability, as managers tend to manipulate earnings when the company's profitability is poor. Managers tend to use profit maximization to increase the manager bonuses, demonstrate better company performance, boost the firm's value, and prevent the possibility of breaching debt agreement. On the other hand, tax considerations serve as the driving force behind managerial actions aimed at reducing corporate tax obligation through income minimization.

Leverage and Earnings Management

Leverage is a factor that affects earnings management, along with sales growth and profitability. Bui and Le, (2021) found that financial leverage is linked to increased earnings management in enterprises. Also, according to Das, et al. (2018)'s research on Indian firms, those with high levels of leverage are more prone to utilizing both accruals and real earnings management strategies. This might be due to Indian firms relying more on bank loans than debenture issuances which may lead to Indian banks imposing stricter

debt covenants. High-levered companies typically perform higher accrual earnings management and real earnings management to maintain these debt covenants. Lazzem and Jilani (2018) also found that highly leveraged firms tend to resort to earnings management techniques to satisfy the demands of investors. Hence, it can be inferred that debt plays a crucial role in the emergence and application of earnings management practices.

Further, Hussain et al. (2022) indicate that managers find it easier to use real earnings management (REM) techniques with short-term leverage compared to long-term leverage. Furthermore, finance constraints were found to weaken the impact of leverage on REM practices when compared to non-funding restrictions. In organizations that face financial constraints, the impact of short-term leverage on earnings management practices in comparison to long-term leverage is less pronounced. Yasser and Soliman (2018) also discover that when a company becomes more leveraged, higher levels of discretionary accruals are to be expected as managers attempt to manipulate the numbers to avoid breaching any debt covenants and to improve the company's reputation.

Research Hypothesis

This research's objective is to examine how sales growth, profitability, and leverage influence earnings management in Indonesian coal mining firms that are listed on the IDX. The following hypotheses were made based on the discussions and evidence provided in the literature review:

H1 : Sales growth affects earnings management.

H2 : Profitability affects earnings management.

H3 : Leverage affects earnings management.

H4 : Sales growth, profitability and leverage simultaneously affect earnings management

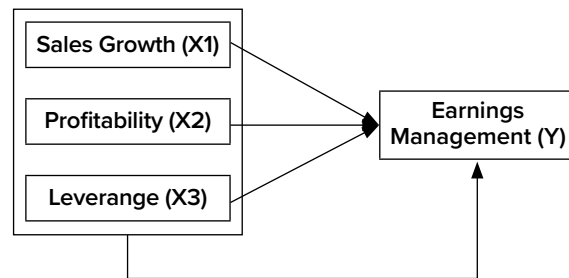The research framework is shown below:

Figure 1. Research Framework

METHODS

The population of this research was coal mining companies registered in the Indonesia Stock Exchange (IDX). The research period examined is from 2017-2020. There were 25 coal mining sector companies listed on the IDX, but only a total of 20 companies met the criteria, resulting in 80 data items being returned. This study employed earnings management as the dependent variable and sales growth, profitability, and leverage as independent variables.

The data utilized in this study was derived from secondary sources obtained from the company's annual reports, as reported under the Indonesian Stock Exchange. The criteria used in the selection of samples in this study were as follows:

1. The companies included were publicly listed companies in coal mining for the period of 2017-2020 and still carrying out operational activities until December 2020.

2. The companies in the coal mining sector that consistently published their financial statements between 2017 and 2020.

3. The companies have published audited financial statements for the research period, namely 2017-2020.

This study employed a panel data approach. A classical assumption test was carried out first to ensure that the linear regression model used was valid as a forecasting tool or to test the hypothesis in this study. The classical assumption tests in this study consisted of a Multicollinearity Test and a Heteroskedasticity Test. All testing, analysis, and data presentation in this study were conducted using EViews version 10.

Research Variables

1. Earnings Management

Dependent variable in this research is earnings management proxied with discretionary accruals. The discretionary accruals were measured using The Modified Jones Model by Dechow 1995 as this model is the most powerful approach to test earnings management widely used approach by researchers in measuring earnings management (Dechow, et al, 1995; Suyono, 2017). The model is as follows (Dechow, et al, 1995):

a. Calculating Total Accruals (TA)

$$TA_{it} = NI_{it} - CFO_{it}$$

b. Estimation of Total Accruals with Ordinary Least Square with the regression equation

$$\frac{TA_{it}}{A_{it-1}} = \beta_1\left(\frac{1}{A_{it-1}}\right) + \beta_2\left(\frac{\Delta Rev_{it}}{A_{it-1}}\right) + \beta_3\left(\frac{PPE_{it}}{A_{it-1}}\right) + \varepsilon$$

c. Based on the regression coefficient above, nondiscretionary accruals (NDA) can be determined with the following formula:

$$NDA_{it} = \beta_1\left(\frac{1}{A_{it-1}}\right) + \beta_2\left(\frac{\Delta Rev_{it}}{A_{it-1}} - \frac{\Delta Rec_{it}}{A_{it-1}}\right) + \beta_3\left(\frac{PPE_{it}}{A_{it-1}}\right)$$

d. Then, discretionary accruals as a measure of earnings management are determined by the following formula:

$$DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it}$$

Where:

TA_{it} : Total Accruals of company i in year t

NI_{it} : Net income of company i in year t

CFO_{it} : Cash flow from the operating activities of company i in year t

A_{it-1} : Total assets of company i in year t-1

ΔRev_{it} : Revenue of company i in year t minus revenue of company i in year t-1

ΔRec_{it} : Accounts receivable of company i in year t minus revenue of company i in year t-1.

PPE_{it} : Property, plant, and equipment of company i in year t

DA_{it} : Discretionary accruals of company i in year t

NDA_{it} : Nondiscretionary accruals of company I in year t

ε : error

2. Sales Growth

Sales growth describes the company's ability to maintain its economic position amid economic growth and its business sector (Kasmir, 2016). Companies that are successful in carrying out the planned strategy are able to increase the value of their sales growth. In this study, sales growth is measured with the difference between the current year's sales and the previous year's sales (Kasmir, 2016). This ratio was also used in the study of Das and Jena (2016) and Nuridah, et al., (2022):

$$Sales\ Growth\ (PP) = \frac{Sales_t - Sales_{t-1}}{Sales_{t-1}}$$

3. Profitability

One of the profitability measurements used in this study is Return on Asset (ROA). ROA is an indicator of the company's profitability that demonstrates how profitable the company is in relation to its assets (Asim and Ismail, 2019). The formula used in this study was previously used in the study of Dang et al. (2017), Tran and Dang (2021) and Kalbuana, et al. (2022):

$$ROA = \frac{Net\ Income}{Total\ Asset}$$

4. Leverage

This study measured the level of leverage with Debt to Asset Ratio (DAR). Debt to Asset Ratio is one of the ratios used to measure the ratio between total debt and total company assets (Kasmir, 2016). This measure was also used in research conducted by Hussain et al. (2022) and Yasser and Soliman (2018):

$$DAR/LEV = \frac{Total\ Debt}{Total\ Asset}$$

RESULTS AND DISCUSSION

RESULTS

Heteroskedasticity Test

The Heteroskedasticity Test aims to determine whether the regression model exhibits a variation in the residuals from one observation to another. The results of the heteroscedasticity test were as follows:

According to Table 4.1's results from the Glesjer test for heteroskedasticity, the probability value of Chi-Square from Obs*R-squared is 0.2675, which is higher than the significance level of 0.05. Therefore, the null hypothesis (H0) was accepted, indicating that there is no heteroscedasticity present in the distribution of the sample data.

Multicollinearity Test

The multicollinearity test is used when linear regression has more than one independent variable. The multicollinearity test is necessary to assess the level of similarity between variables in a single regression model.

Table 4.1 Heterochedasticity Test Results

Heteroskedasticity Test: Glesjer

F-statistic	1.255879	Prob. F(9,70)	0.2765
Obs*R-squared	11.12178	Prob. Chi-Square(9)	0.2675
Scaled explained SS	8.728062	Prob. Chi-Square(9)	0.4627

Table 4.2 Multicollinearity Test Results

Variance Inflation Factors
Date: 01/30/22 Time: 02:15
Sample: 2017 2022
Included Observations: 80

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.008225	60.45612	NA
PP	0.000367	62.75868	1.012675
ROA	0.001765	38.26798	1.184980
DAR	0.001251	17.67583	1.224756

A good model does not exhibit a correlation between variables. If the test value of the result is above 10, it indicates the presence of multicollinearity in the model, and if the value is below 10, multicollinearity is not present. The following are the results of the multicollinearity test.

According to the multicollinearity test results in Table 4.2, the test value is less than 10, indicating the absence of multicollinearity in the model.

Descriptive Statistical Analysis

This study's descriptive statistical analysis aims to to provide an overview of each research variable, including sales growth, profitability, leverage as independent variables, and earnings management as a dependent variable. Descriptive statistics display the maximum, minimum, mean, and standard deviation. The following are the descriptive statistics results for each variable:

Where:

MLit = Earnings Management (*Manajemen Laba*) of Company i in year t

$\beta1$ = Regression coefficient of sales growth

PPit = Sales Growth (*Pertumbuhan Penjualan*) i in year t

$\beta2$ = Profitability regression coefficient

ROAit = Profitability i in year t

$\beta3$ = Leverage regression coefficient

DARit = Leverage i in year t

Chow Test

After conducting regression analysis using both the common effect model (CEM) and fixed effect model (FEM), a Chow test was performed to determine the most appropriate model for analysing this study. The following are the results of the Chow test.

In Table 4.4, the results of the Chow test in the cross-section chi-square show a probability

Table 4.3 Descriptive Statistical Test Results

Information	Earnings Management	Sales Growth	Profitability	Leverage
Mean	-0.000383	0.137672	0.075362	0.528369
Maximum	0.002571	0.864234	0.207314	0.962330
Minimum	-0.003651	-0.307260	-0.046033	0.239021
Std. Dev.	0.001927	0.380969	0.082144	0.254320
Observations	80	80	80	80

Regression Model Selection

Model Specifications

Model specifications involve selecting relevant variables for research and developing hypotheses based on existing theories. The specifications of the equation model utilized in this study are as follows:

MLit = a + β1 PP it + β2 ROAit + β3 DARit + ε

value of 0.0229, which is smaller than the significance value of 0.05. In other words, H0 was rejected, and the fixed effect model is used.

Table 4.4 Chow Test Results

Effect Test	Statistic	d.f.	Prob.
Cross-section F	1.541901	(19,57)	0.0049
Cross-section Chi-square	33.178671	19	0.0229

Sourced from processed data Eviews 10

Hausman Test

The next step is to conduct a Hausman test using the regression results obtained from a random effects model. The following are the results of the Hausman test.

Table 4.5 Hausman Test Results

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	5.281433	3	0.00023

Sourced from processed data Eviews 10

In Table 4.5, the results of the Hausman test in the cross-section chi-square indicate a probability value of 0.00023, which is smaller than the significance value of 0.05. This means that H0 was rejected, and the fixed effect model is used.

Model Selection Results

Based on the outcomes of the performed panel data estimation, the subsequent step is to determine the appropriate model selection. The selection of a panel data regression model can be determined through three tests: the Chow test, the Hausman test, and the Lagrange multiplier test. Based on the three model selection tests, it can be concluded that the regression estimates used are as follows:

The probability value of the Cross-section Chi-square in the Chow test is 0.0229 < 0.05, then the selected test result is a Fixed Effect Model. In the Hausman test, the probability value shows 0.00023 < 0.05, which means that the right model as an analysis of this study is the Fixed Effect Model.

Panel Data Regression Analysis

Panel data regression analysis aims to examine the impact of independent variables, including sales growth, profitability, and leverage, on the dependent variable of earnings management. This analysis will be conducted using firms in coal mining sector listed on the Indonesia Stock Exchange over a specific time period. By utilizing the results of the Fixed Effect Model regression analysis to conduct t-tests, F-tests, and Determination Coefficient tests ($R2$), the following results were obtained:

Individual Parameter Significance Test (t-test)

Individual parameter significance test (t-tests) was performed to determine how far each variable is or how partially independent of the dependent variable. The following are partial test results:

Table 4.6 Model Selection Conclusion

No	Method	Test	Result
1	Chow test	Common Effect vs Fixed Effect	Fixed Effect
2	Hausman Test	Common Effect vs Fixed Effect	Fixed Effect
Test Result			**Fixed Effect**

Table 4.7 Panel Data Regression Analysis

Dependent Variables	Independent Variables	Coefficient	t-Statistics	Itself.
(1)	**(2)**	**(3)**	**(4)**	**(5)**
ML (Earnings Management)	C	0.00715	2.32721	0.0235
	Sales Growth	-0.00273	-4.91208	0.0000
	Profitability	0.00014	0.02769	0.9780
	Leverage	-0.01356	-2.31918	0.0240
R^2		0.527220	*Adj* R^2	0.344743
F-statistic		2.889244	*Prob (F-statistic)*	0,000685

Table 4.8 Individual Paramter Significance Results (t-test)

	Coefficients[a]					
Model		Unstandardized Coefficients		t	Itself.	Information
		B	Std. Error			
1	(Constant)	0.00715	0,00307	2.32721	0.0235	
	Sales Growth	-0.00273	0,00055	-4.91208	0.0000	H1 Accepted
	Profitability	0.00014	0,00505	0.02769	0.9780	H2 Rejected
	Leverage	-0.01356	0,00585	-2.31918	0.0240	H3 Accepted
a. Dependent Variable: Earnings Management						

Based on the table above, the regression analysis yielded a coefficient value of -0.00273 for PP (Sales Growth), 0.00014 for ROA (Profitability), -0.01356 for DAR (Leverage), and a constant value of 0.00715. Based on these numbers, a regression model can be constructed as follows:

MLit = 0,00715 + (-0,00273 PP it) + (0.00014 ROAit) + (-0.01356DARit) + ε

This model can be described as follows:

a. The coefficient value of the sales growth variable (X1) to earnings management (Y) is -0.002734, with a significance level of 0.0000, which is less than 0.05. This indicates that the sales growth variable has a partially significant effect on the earnings management variable.

b. The profitability variable (X2) and its coefficient value of 0.000140 were found to have a significance level of 0.9780, which is greater than the threshold of 0.05. This indicates that the profitability variable has no significant influence on the earnings management variable.

c. The leverage variable (X3) has a coefficient value of -0.013567 in relation to earnings management (Y), with a significance level of 0.0240, which is less than 0.05. This indicates that the leverage

variable has a partially significant effect on the earnings management variable.

Simultaneous Test (F Test)

The Simultaneous Test F or Omnibus test of model coefficients aims to determine whether all independent variables used in the model have a simultaneous influence on the dependent variable.

Based on Table 4.7, the results of the Fixed Effect Model (FEM) panel data regression calculation model show an F-count of 2.889244 and a significance value of 0.000685, which is less than 0.05 (0.000685 < 0.05). Thus, it can be inferred that all independent variables, namely sales growth, profitability, and leverage, have a significant effect on earnings management when considered together or simultaneously.

Coeffesient Determination (R2)

The coefficient of determination (R2) measures the extent to which the model can account for the variability in the dependent variable. Based on Table 4.7, which presents the results of the panel data regression test using the Fixed Effect Model (FEM) estimation model, the coefficient value of the Adjusted R-squared determination was 0.344743. This indicates that 34.47 percent of the variance in

sales growth, profitability, and leverage can be explained by the variables studied in this research, while the remaining 65.53 percent is influenced by other factors not examined in this study.

DISCUSSION

1. The Effect of Sales Growth on Earnings Management

Based on the outcomes of panel data regression using the Fixed Effect Model (FEM) technique, it is evident that sales growth has a significant impact on earnings management. The significance value of 0.0000, which is less than 0.05, and the coefficient value of -0.002734 support this finding. This means that when sales growth increases, earnings management decreases, and vice versa. Therefore, hypothesis 1 was accepted.

This research is consistent with studies conducted by Anindya and Yuyetta (2020), Turot (2019), and Astari and Suryanawa (2017), which demonstrate that the variable of sales growth has a partial and significant impact on earnings management. By lowering the sales, a manager is motivated to avoid his obligation to pay the company's tax obligation in a certain period. However, in some cases, a manager may also be motivated to increase sales to maintain a consistent and positive sales growth trend. This can facilitate managers to receive bonuses and attract investors to invest in the firm.

However, this research contradicts a study conducted by Rahmawati & Hakim (2018), which suggests that sales growth, whether increasing or decreasing, cannot detect earnings management in a company. The motivation for earnings management is based on specific trends that occur during a certain period, according to the study.

This situation intersects with the existing theory of the Political Cost Hypothesis, which explains that managers may use accounting methods to make earnings appear less attractive to the government in order to avoid tax obligations (Maqfiroh & Kusmuriyanto, 2018; Wuttichindanon, 2017; Anwar & Chandra, 2017). The existing phenomenon also shows that many companies in the mining sector conduct their operations but fail to fulfill their tax obligations. This theory is similar to the Bonus Plan Hypothesis of positive accounting theory, which suggests that managers may act opportunistically to manipulate earnings and affect the amount of bonuses they receive (Wuttichindanon, 2017).

2. The Effect of Profitability on Earnings Management

According to the results of panel data regression using the Fixed Effect Model (FEM) method, the significance value of 0.9780 is greater than 0.05. This indicates that profitability does not have a significant effect on earnings management. Therefore, the hypothesis that profitability affects earnings management has been rejected. A positive coefficient value of 0.000140 indicates that the level of earnings management is not affected by a high or low profitability ratio generated by the company.

This theory is in line with the findings of Wardani and Isbela (2017) and Fathihani and Nasution (2021), who demonstrated that profitability does not have a significant impact on earnings management. High profitability indicates good performance by the managers, resulting in increased returns for shareholders and managers alike. Therefore, they lack the motivation to engage in earnings management. The lack of influence of ROA is likely due to investors ignoring this

information, which in turn reduces managers' motivation to engage in earnings management through profitability.

Contrary to the research conducted by Purnama (2017), Hasty and Herawaty (2017), Yanti and Setiawan (2019), and Febria (2020), which stated that profitability had a significant positive effect on earnings management. With a high and stable profitability ratio, managers may be tempted to engage in earnings management. This is because assets serve as a benchmark for generating profits, and therefore, managers are motivated to engage in earnings management to increase their bonuses. This behaviour is explained by the Bonus Plan Hypothesis theory.

3. The Effect of Leverage on Earnings Management

The result of the panel data regression for Hypothesis 3 is 0.0240, which is lower than the significance value of 0.05. The statement implies that the leverage variable has a noteworthy impact on earnings management. The coefficient value of -0.013567 indicates that there is an inverse relationship between the leverage ratio and earnings management actions. Specifically, as the leverage ratio increases, earnings management actions decrease, and vice versa. Hypothesis 3 was accepted.

The theory of leverage, as explained by Kasmir (2014) in Hanisa and Rahmi (2021). According to this theory, if a company's leverage ratio exceeds the value of its assets, it indicates that the company is in a precarious situation. Due to its heavy reliance on borrowed money to fund its operations, the company may find it challenging to meet both short-term and long-term debt payments and might conduct earnings management to avoid breaching the debt agreements..

This research is in line with earlier investigations by Yanti and Setiawan (2019) as well as Agustia et al. (2018), which propose that organizations that have substantial levels of debt face significant leverage, creating challenges for management to forecast the company's future. Creditors will exercise stricter oversight when a company has high levels of debt. This has resulted in reduced flexibility for management to engage in earnings management. the likelihood of management carrying out earnings management decreases as leverage increases. Conversely, when leverage is low, the level of earnings management carried out will be higher.

This result differs from the findings of previous research conducted by Dewi & Suryanawa (2019), Febria (2020), and Hanisa & Rahmi (2021), which indicated that the management of earnings is not significantly impacted by leverage. If the leverage ratio is high, creditors will closely monitor the company, making it difficult for the company to manipulate financial statements. Another reason why leverage does not affect earnings management is due to the presence of good corporate governance within the company. The company operates in accordance with regulations while also prioritizing the interests of its stakeholders.

4. The Effect of Sales Growth, Profitability and Leverage on Earnings Management

The final hypothesis of this study examines the impact of sales growth, profitability, and leverage on earnings management in mining companies that are listed on the IDX between 2017 and 2020. The result of the simultaneous test or Test F in Table 4.11 indicates a probability smaller than 0.05. This leads to the conclusion that all independent variables collectively or

simultaneously impact earnings management with a significant value of 0.000685. Earnings management is a practice in which managers manipulate financial statements to deceive shareholders by submitting invalid or inaccurate information.

The company engages in earnings management to sustain its sales growth and present a stable image to investors, thereby reducing their hesitation to invest funds in the company (Hanisa & Rahmi, 2021). The relationship between profitability and earnings management reflects the company's ability to effectively and efficiently utilize its assets to generate profits. Therefore, when managers engage in earnings management to demonstrate efficient utilization of assets to shareholders, it can benefit them by portraying strong managerial performance, which may lead to bonuses or increased compensation.

Meanwhile, leverage affects earnings management as companies try to avoid violating debt agreements. By manipulating accounting figures on the financial statements, a company can circumvent debt covenants and make it easier to secure additional funds from creditors or obtain additional capital for its operations (Dewi & Suryanawa, 2019).

5. Effect of Sales Growth, Profitability, and Leverage on Earnings Management

The final hypothesis of this study examines the effect of sales growth, profitability, and leverage on earnings management in mining companies that are listed on the IDX between 2017 and 2020. This can be observed in the results of the simultaneous test or Test F in Table 4.11, which indicates a probability smaller than 0.05. This leads to the conclusion that all independent variables collectively or simultaneously impact earnings management

with a significant value of 0.000685. Earnings management is a practice in which managers manipulate financial statements to deceive shareholders by submitting invalid or inaccurate information.

The organization practices earnings management to maintain its sales growth and project a consistent image to potential investors, which in turn lessens their reluctance to invest capital in the company. (Hanisa & Rahmi, 2021). The relationship between profitability and earnings management reflects the company's ability to effectively and efficiently utilize its assets to generate profits. Therefore, when managers engage in earnings management to demonstrate efficient utilization of assets to shareholders, it can benefit them by portraying strong managerial performance, which may lead to bonuses or increased compensation.

Meanwhile, leverage affects earnings management as companies try to avoid violating debt agreements. By manipulating accounting figures on the financial statements, a company can circumvent debt covenants and make it easier to secure additional funds from creditors or obtain additional capital for its operations (Dewi & Suryanawa, 2019).

MANAGERIAL IMPLICATION

The study's results indicate that coal mining firms listed on the Indonesian Stock Exchange should give special attention to their sales growth and leverage levels to prevent earnings management practices that could have adverse effects on their long-term performance. Furthermore, they should concentrate on enhancing their internal control systems to prevent earnings management practices that could result in financial misconduct. When assessing a company's financial performance

and sustainability, investors and stakeholders should closely scrutinize the company's sales growth and leverage levels. It is also important to take into account the company's financial reporting procedures and any potential earnings management practices that could have a negative effect on the company's long-term health and reputation.

All in all, this study emphasizes the importance of upholding transparency in business practices and avoiding earnings management that may jeopardize a company's long-term condition and reputation. By focusing on sales growth, using appropriate leverage levels, and improving internal control systems, firms can ensure their long-term performance as well as maintain the trust and confidence of their stakeholders.

CONCLUSION

The aim of this research is to examine the effect of sales growth, profitability, and leverage on earnings management, using information gathered from firms listed on the Indonesian Stock Exchange. Data was collected from annual reports from 2017 to 2020. The regression analysis found that sales growth has a significant effect on earnings management, as indicated by a negative coefficient value. This result suggests that there is an inverse relationship between sales growth and earnings management. When sales growth decreases, earnings management is expected to increase, while a rise in sales growth is likely to lead to a decrease in earnings management. On the other hand, the result for profitability shows a different result. It indicates that profitability does not significantly affect earnings management in coal mining sector companies listed on Indonesian Stock Exchange. Meanwhile, the effect of leverage on earnings management is noteworthy, as evidenced by a negative coefficient value associated with earnings management. This implies that there is an adverse link between leverage and earnings management, whereby a decrease in leverage leads to an increase in earnings management and vice versa. Furthermore, the dependent variable of earnings management is affected by the simultaneous or combined influence of the independent variables of sales growth, profitability, and leverage. The interplay between the high and low values of the three variables fosters and facilitates earnings management practices by the management.

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