

## IMPACT OF LEVERAGE, FIRM SIZE, AND PROFITABILITY ON EARNINGS MANAGEMENT

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### Abstract

Earnings management is an action taken by management to manage earnings in financial statements. This study analyzes the effect of leverage, firm size, and profitability on earnings management in energy sector companies listed on the Indonesia Stock Exchange for the 2021–2023 period. The results provide empirical evidence that leverage and firm size influence earnings management. Meanwhile, profitability has no effect on earnings management. These findings provide insights for companies, investors, and stakeholders in understanding the factors that influence earnings management practices.

**Keywords:** Leverage, Firm Size, Profitabilitas, Earnings Management

### INTRODUCTION

With the rapid development of the business world, financial statements have become an important medium for decision-making in every company. One source of information regarding a company's performance and situation is the financial statements used by external parties to evaluate the company's financial performance. When making decisions, many parties consider the company's financial information and the financial statement materials submitted for review. Financial statements are a tool for measuring a company's performance. Financial statements provide information concerning a company's financial position, performance, and changes in financial position, which is useful in decision-making.

The income statement, one part of the financial statements, is a primary concern for report users. The income statement shows and reflects the profit or loss generated by the company over a certain period. Therefore, the income statement is one of the parts most frequently manipulated by management in an effort to gain an advantage. Management behavior as described above sometimes conflicts with the company's core values. This behavior is known as earnings management (Kartika & Simbolon, 2022).

Earnings Management is the use of certain accounting techniques to manipulate income or accelerate expenditure or income transactions, as well as other methods aimed at influencing short-term profit (Umah & Sunarto, 2022). Managers' actions when evaluating financial statements and preparing transactions aim to change the amount of income relative to the company's economic performance or to influence contract outcomes depending on the generated figures. Earnings management practices are generally permitted as long as they do

not violate accounting standards and the chosen accounting principles are in accordance with applicable accounting standards. There are many factors that influence earnings management, one of which is leverage. Leverage is a ratio that measures the extent to which a company's assets are financed by debt. Leverage can be measured using the Debt to Assets Ratio (DAR). The Debt to Asset Ratio (DAR) shows how much of a company's assets are financed by debt. A high level of leverage will lead to the risk of bankruptcy, so earnings management is one way to manipulate financial statements to appear attractive to investors (Suheny, 2019).

Leverage will provide financial statement users with information about the company's capital structure. Companies dominated by debt take on greater risk. Banks will be strict in their selection and conduct additional oversight to ensure that the business can pay its obligations. Greater leverage will be followed by more oversight. This reduces management's opportunities to engage in earnings management.

Firm size is a measure, scale, or variable that represents the size of a company based on several decisions, such as total assets, log size, market value, total sales, shares, revenue, capital, etc. Company size is a measure that can be seen from the sum of equity value, sales, and asset value. Firm size is indicated by total assets, sales volume, and market capitalization. Companies classified as large companies generally receive more attention from external parties such as the government, investors, and creditors, and therefore are more transparent in carrying out their operational activities, which can minimize earnings management actions.

Profitability is a ratio to measure a company's ability to generate profit using the company's resources such as assets, capital, or company sales (Sudana, 2019). Operating ratio is a ratio that shows a company's ability to generate profit. Profitability refers to a company's ability to generate profit over a certain period of time. The higher a company's profit, the better its performance and ability to generate profit.

If businesses experience a decline in profitability over a certain period, they tend to engage in earnings management, which usually results in an increase in profit and revenue. Ultimately, the company's prosperity is not disturbed, and investors remain with the company. Therefore, management usually implements earnings management to keep profits stable and maintain investor confidence. Earnings management is also done by providing bonuses or compensation (Roslita & Daud, 2019).

## **IMPLEMENTATION METHOD**

The type of research conducted is quantitative research using secondary data, which is for testing theories by numerically measuring research variables and analyzing secondary data using statistical methods. The data used are numbers obtained by visiting the BEI website. Based on the sample criteria determined in this study, a sample of 39 companies was obtained each year. Thus, the total number of analysis units used was 117 during the 2021-2023 period and outliers were removed using the z-score value, by filtering the unstandardized results from largest to smallest and then removing extreme data. 5 outliers were removed, so the sample data that met the research criteria was 112 analysis units

## RESULT

This research is a type of quantitative research, which uses a statistical approach in processing research data. The population is energy sector companies listed on the BEI. The results of the research sample using purposive sampling technique are:

**Table IV. 1 Descriptive Statistical Analysis Results**

Variabel	N	Minimum	Maxium	Mean	Std.Dev
Leverage	112	0,001	3,177	0,820	0,658
Firm Size	112	22,753	36,060	30,306	2,813
Profitabilitas	112	0,001	0,616	0,132	0,133
Earnings Management	112	-6,197	1,773	0,070	0,687

Source: Data Analysis Results 2025

Based on Table IV.1, the results of the descriptive statistical analysis show that the number of analysis units is 112. The leverage variable has a minimum value of 0.001 and a maximum of 3.177, with an average of 0.820 and a standard deviation of 0.658. This indicates that an average of 82% of the company's funding sources come from debt and the rest from equity. The firm size variable, proxied by total assets, has a minimum value of 22.753 and a maximum of 36.060, with an average of 30.306 and a standard deviation of 2.813. This indicates that the average total assets of energy sector companies during the 2021–2023 period are quite high.

The profitability variable has a minimum value of 0.001 and a maximum of 0.616, with an average of 0.132 and a standard deviation of 0.133. The average value indicates that the company's profitability level is relatively low during the observation period. The earnings management variable has a minimum value of -6.197 and a maximum of 1.773, with an average of 0.070 and a standard deviation of 0.687. An average of 7% indicates that companies tend to engage in earnings management, although at a relatively low level.

### Classical Assumption Test

The data processing results using SPSS show that the normality test using the CLT (Central Limit Theorem) can assume that if the data is greater than 30, then the data results can be said to be normal. In this study, the number of n is 112, which is greater than 30. The multicollinearity test results show that the tolerance value is greater than 0.10 and the VIF value is less than 10, meaning there is no multicollinearity problem in the regression equation. The autocorrelation test results, Asymp. Sig. (2-tailed) value is greater than 0.05, so it can be concluded that the regression equation in this study is free from autocorrelation. The results of the heteroscedasticity test show that the absolute values of the regression data residuals indicate that all independent variables in this study are free from heteroscedasticity problems, as they have a sig value greater than 0.05.

### Multiple Linear Regression Test Results

Based on the output results in the table, the linear regression equation obtained is:

$$EM = -0.930 + 0.063DER - 1.141FS - 0.017P$$

The regression coefficient for the leverage variable is 0.063 with a positive direction. This can be interpreted that companies applying the principle of leverage will have higher earnings management values. Conversely, the lower the company's leverage ratio, the lower the tendency for earnings management practices. The regression coefficient for the firm size variable is -1.141 with a negative direction. This can be interpreted that the larger the company's firm size, the lower the EM value tends to be. Conversely, the smaller the company's size, earnings management tends to increase. The regression coefficient for the profitability variable is -0.017 with a negative direction. This indicates that the higher the company's profitability, the lower the level of earnings management tends to be. Conversely, when company profitability declines, earnings management practices tend to increase. In other words, companies that are less able to generate profits tend to be more motivated to engage in earnings management to improve the perception of their financial performance.

**Table IV. 2 Multiple Linear Regression Test Results**

Variabel	Unstandardized Coefficients		Standardized Coefficients		
	B	Std.Error	Beta	t	Sig
(Constant)	-0,930	0,644		-1,444	0,152
Leverage	0,063	0,021	0,268	2,980	0,004
Firm Size	-1,141	0,443	-0,232	-2,577	0,011
Profitabilitas	-0,017	0,086	0,018	-0,199	0,843

**Source: Data Analysis Results 2025**

### F Test

The F test result is 5.202. The significance value shown by the F test is less than 0.05, so it can be concluded that the regression model with the dependent variable earnings management and three independent variables, namely leverage, firm size, and profitability, is suitable for use or is a fit model regression. The Adjusted R Square value is 0.102 or 10.2%. This indicates that the independent variables, namely leverage, firm size, and profitability, can explain the variation of the dependent variable, earnings management, by 0.102 or 10.2%, while the remaining 89.8% is explained by other variables not included in this study.

## **DISCUSSION**

### **Leverage affects earnings management**

The research results provide empirical evidence that leverage affects earnings management (EM). This means that companies with high levels of leverage tend to have greater incentives to engage in earnings management. This is due to pressure to meet debt obligations and maintain compliance with debt covenants. In tight financial conditions, management may be encouraged to manipulate profit reports to appear healthy in the eyes of creditors. High leverage reflects that a company has a larger proportion of debt compared to its own capital, which means its financial risk is also higher. To maintain the trust of external parties, such as creditors and investors, management may use earnings management so that financial reports reflect a more stable or profitable condition, even if it does not reflect the actual situation.

Thus, the higher a company's leverage level, the greater the likelihood of earnings management. This indicates that information regarding leverage is an important factor to consider in assessing the quality of financial reports and management integrity. Investors and financial analysts need to pay attention to the leverage ratio in investment decision-making so as not to be deceived by manipulated profit figures. The results of this study are consistent with the research of (Agustia & Suryani, 2018) and (Pahmi, 2018), which provide empirical evidence that leverage affects earnings management.

Firm size affects earnings management  
Research results provide empirical evidence that firm size affects earnings management (EM). Larger companies generally receive greater attention from the public, regulators, and investors, which encourages management to be more careful in presenting financial reports. However, on the other hand, large companies also have greater flexibility and more adequate resources to conduct earnings management subtly and structurally to achieve certain performance targets or maintain the stability of the company's image.

Although large companies tend to have better internal control systems and corporate governance, their ability to time revenue or expense recognition still makes earnings management practices possible. In some cases, large companies can leverage operational complexity and extensive transactions as loopholes to conduct earnings management without being easily detected. Thus, company size becomes one of the important factors in understanding management's motivation and opportunities to conduct earnings management. The larger the company size, the greater the market's attention to its performance, and this can trigger management to manage earnings to meet external expectations. Therefore, investors and analysts need to observe firm size as an indicator of the potential for earnings management, not just as a symbol of business strength. These research results are consistent with the research (Fadhilah & Kartika, 2022) and (Kamalita, 2022), which provide empirical evidence that firm size affects earnings management.

### **Profitability does not affect earnings management**

Research results provide empirical evidence that profitability does not affect earnings management (EM). This means that the level of profit obtained by the company is not always a determinant in management's decision to conduct earnings management. Although logically less profitable companies have a greater urge to manipulate financial reports, these research

results show that companies with high and low profitability have relatively similar probabilities of conducting earnings management. The non-effect of profitability on earnings management can be caused by various other more dominant factors in driving such practices, such as pressure from external parties (e.g., creditors), managerial bonus interests, or compliance with debt agreements. In addition, earnings management can also be done not merely to show good performance, but also to achieve certain targets that are not always directly related to current profit.

Thus, profitability is not the only indicator that can be used to assess the potential for earnings management in financial reports. Investors, auditors, and other parties need to look deeper into management's incentive structure, corporate governance, and overall financial condition. This shows that in assessing the integrity of financial reports, it is not enough to only consider the level of profit, but also to pay attention to other more complex factors that influence managerial behavior.

These research results are consistent with the research (Bintara, 2021) and (Kamalita, 2022), which provide empirical evidence that profitability affects earnings management.

## **CONCLUSION**

Leverage affects earnings management; the higher the company's leverage ratio, the higher the earnings management. Firm size affects earnings management; larger companies tend to have a greater opportunity to conduct earnings management. Profitability does not affect earnings management, which means that the profit level is not a determining factor in earnings management practices in companies. This research was only conducted within the scope of energy sector companies listed on the IDX for the period 2021-2023. The results of the coefficient of determination test (Adjusted R Square) explain that the variation of the dependent variable, namely ERC, is 0.102 or 10.2%, while the remaining 89.8% is explained by other variables not included in this study. Only three independent variables were used to measure the level of earnings management implementation. This research used a sample of energy sector companies listed on the IDX in the 2021-2023 period. Future researchers are advised to expand the research object to all companies listed on the Indonesia Stock Exchange, such as companies included in the LQ45 index, the banking sector, or other sectors, so that the research results become more general and representative. Future researchers are expected to extend the research period to capture the dynamics of earnings management over a wider and more accurate period. Future research is expected to compare with several research models to measure earnings management variables, for example using the Jones model, Modified Jones, Dechow & Dichev, or other relevant models according to the characteristics of the companies studied.

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