The Effect of Labor Producticity Gap and Financial Factors on Earnings Management

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***ABSTRAK**: Penelitian ini bertujuan untuk mengetahui pengaruh labor producticity gap dan faktor-faktor keuangan terhadap manajemen laba pada perusahaan sektor consumer non-cyclicals yang terdaftar di IDX/BEI periode 2019-2022. Teori yang digunakan dalam penelitian ini adalah agency theory. Sampel penelitian ini terdiri dari 64 perusahaan dengan total 256 data observasi. Metode analisis yang digunakan dalam penelitian ini adalah analisis regresi data panel. Hasil penelitian menunjukkan bahwa firm size berpengaruh positif terhadap manajemen laba. Firm age berpengaruh positif terhadap manajemen laba. Leverage berpengaruh positif terhadap manajemen laba. ROA berpengaruh negatif terhadap manajemen laba. Labor producticity gap tidak berpengaruh signifikan terhadap manajemen laba. Penelitian ini terbatas hanya pada perusahaan consumer non-cyclicals sehingga hasilnya tidak dapat digeneralisasi untuk sektor lainnya.*

***Kata kunci**: Real activities manipulation, Labor producticity gap, ROA, Firm size, Age, Leverage.*

***ABSTRACT**: This study aims to determine the effect of labor producticity gap and financial factors on earnings management in non-cyclical consumer sector companies listed on IDX / BEI for the 2019-2022 period. The theory used in this research is agency theory. The sample of this study consisted of 64 companies with a total of 256 observation data. The analysis method used in this research is panel data regression analysis. The results showed that firm size has a positive effect on earnings management. Firm age has a positive effect on earnings management. Leverage has a positive effect on earnings management. ROA has a negative effect on earnings management. Labor producticity gap has no significant effect on earnings management. This research is limited only to consumer non-cyclicals companies so that the results cannot be generalized to other sectors.*

***Keywords**: Real activities manipulation, Labor producticity gap, ROA, Firm size, Age, Leverage.*

1. INTRODUCTION

The Chief Executive Officer (CEO) is the highest manager who leads the company. The CEO is basically someone who has a high position in the company and is responsible for developing the company's vision and strategy. In general, the CEO is responsible for planning the annual budget, signing off on budgets and revenues, developing expansion plans and interacting with investors. In Indonesia, the CEO is a member of the board of directors who is assigned by the shareholders to lead and determine the company's strategy (Cristi & Edi, 2022).

The appointed CEO has control of the firm's decision authority and is responsible for the firm's performance (Chou & Chan, 2018). However, managers usually fail to recognize the potential strategies needed for optimal implementation (Nurasia &

Aprirachman, 2023). Many of these failures are due to manager characteristics such as inappropriate judgment and overconfidence (Bhuyan & Hasan, 2022).

Several cases of managers failing to make strategic decisions have occurred in recent years. Sourced from news written by Mentari Puspadini published by CNBC, indicating that Bankruptcy and Suspension of Debt Payment Obligations (PKPU) applications continue to increase, listed companies are among them. Aria Suyudi, Founder of the Indonesian Center for Law & Policy Studies (PSHK), lecturer at the UI faculty of law, and Member of the Supreme Court Judicial Reform Team, revealed that since UU No. 37/2004 came into force, PKPU has often been used as the easiest way to collect debts, rather than to achieve peace or restructuring. Aria stated that there is a tendency for bankruptcy and PKPU procedures to be misused as a dispute strategy, despite not actually qualifying for a bankruptcy declaration (Puspadini, 2023).

Another source, Susi Setiawati in her article published by CNBC, the number of bankruptcy and PKPU applications peaked in 2021 with 726 applications. Companies listed on the Indonesia Stock Exchange (IDX), including PT Sentul City Tbk (BKSL), PT Hanson International Tbk (MYRX), PT Global Mediacom Tbk (BMTR), and PT Ace Hardware Indonesia Tbk (ACES), are facing PKPU and bankruptcy-related lawsuits at the Commercial Court in Central Jakarta (Setiawati, 2023).

The impact of a manager's failure can have implications for financial consequences. The problems described call for a strategic evaluation of workforce performance and the responses and actions taken by managers in these situations. Whichever way they choose to deal with their failure, it will have an impact on the financial performance of the company such as the quality of earnings (Bhuyan & Hasan, 2022). According to (Gull et al., 2018) the quality of a company's earnings reflects the extent to which earnings can describe the company's financial condition (Cristi & Edi, 2022).

Managers' failure to achieve labor productivity targets often leads to a decline in company revenue. When there is a decrease in revenue, they will feel pressure to still show positive results to look good in the eyes of shareholders. To meet these expectations, managers may choose to engage in opportunistic earnings management, i.e. manipulating financial statements to make the company's performance look better than it actually is (Bhuyan & Hasan, 2022).

Decisions made by company management to manipulate financial statements are called earnings management. Earnings management is a practice where company managers reduce the quality of earnings to be reported with the aim of ensuring consistency with the desired target, even though it is not aligned with the company's economic performance to stakeholders in order to attract investor interest and obtain personal gain (Kapoor & Goel, 2017).

The damage caused by financial statement fraud has a significant impact. Earnings management is a phenomena that often causes losses and problems for many of the parties (Yuliastuti & Nurhayati, 2023). According to (Nurmayanti et al., 2022) this happens because earnings management practices can reduce the quality of financial reporting because the information presented in the financial statements does not describe the company's actual economic condition (Prayogi & Riziqiyah, 2023).

Generally, earnings management is categorized into two, which is accrual earnings management and real earnings management (Musa et al., 2023). Both of them have different concepts of earnings management practices. In accrual earnings management, manipulation is carried out by changing the use of the company's accounting policy or method with the aim of changing the amount of profit generated by the company. This manipulation is only possible through financial reports, so that the financial statements prepared are not in accordance with applicable accounting standards (Bouaziz et al., 2020).

Otherwise, real earnings management practices are carried out through the firm's normal operating activities. Real earnings management practices carried out by management include manipulating sales through price discounts or by providing easy credit terms; reducing discretionary expenses such as selling expenses, administrative expenses, research and development expenses, and advertising expenses; and increasing production costs beyond normal cost. So the practice of real earnings management can directly affect the company's operating cash flow (Barus et al., 2019).

There are three reasons why companies prefer to practice real earnings management over accrual earnings management. First, accrual earnings management practices are more often the focus of observation by auditors and regulators than pricing and production decisions. So that changing the accounting method through accruals is a risk for the company if the company is proven to have deviated from applicable accounting standards with the intention of manipulating profit (Baskoro & Wardhani, 2017).

Secondly, focusing on accrual manipulation activities only is a potentially risky activity, if the company has limited flexibility to manipulate accruals, such as limitations in reporting discretionary accruals (Baskoro & Wardhani, 2017). Third, real earnings management activities are difficult for auditors to detect because manipulation occurs in the company's operational activities directly. According to (Roychowdhury, 2006) real earnings management could only be detected through three measurements, namely the operational cash flow, the firm's discretionary expenses and production expenses.

One of the companies that practice earnings management is PT Tiga Pilar Sejahtera Food Tbk (AISA). Earnings management manipulation carried out by directors through financial statements has been exposed at PT Tiga Pilar Sejahtera Food Tbk (AISA) (Cristi & Edi, 2022). Based on news published by detikFinance on August 8, 2021, the Panel of Judges of the South Jakarta District Court sentenced two former directors of the company, namely Budhi Istanto and Joko Mogoginta, for manipulating the 2017 financial statements to influence the company's share price (Detikcom, 2021). The previous management of PT Tiga Pilar Sejahtera Food Tbk (AISA) is alleged to have inflated the company's financial statements by Rp 4 trillion in 2017 (Ernst & Young Indonesia, 2019). Speculation of inflation allegedly occurred in three accounts, namely receivables, inventory and fixed assets of PT Tiga Pilar Sejahtera Food Tbk (AISA). Based on the findings of the report from PT Ernst & Young (EY), there are also differences in financial records between internal data and records used by financial auditors in the 2017 financial statement audit process. This indicates earnings management practices carried out by previous management, by increasing profits or reducing losses reported in the actual income statement, so that losses look smaller (Yuliastuti & Nurhayati, 2023).

This research is a development of the results of research (Bhuyan & Hasan, 2022), which examines the relationship between labor producticity gap and earnings management in non-financial sector companies in the United States. In that research, it was found that the labor producticity gap has a positive effect on earnings management. In this study the authors added financial factors such as ROA, firm size, firm age and leverage.

ROA (Return on Assets) describes the level of profitability achieved by the company through the use of existing assets (Karina & Sutandi, 2019). In general, the profitability value of a company is used as an indicator to measure the performance of a company. The higher the profitability of a company, the better the manager's performance in the eyes of shareholders because it shows the manager's effectiveness in generating profits (Lestari & Wulandari, 2019).

The correlation between company size and earnings management practices is still ambiguous, but company size affects the quality of information reported (Cristi & Edi, 2022). The size of the company is proportional to the information disclosed, large companies usually disclose more information than small companies (Fandriani & Tunjung, 2019). According to (Cahyani & Hendra, 2020) the larger of the company size, the more likely it is that managers are involved in earnings management practices.

The duration of the company's establishment shows its ability to survive amidst intense competition between companies (Chowanda & Nariman, 2023). A company that has been around for a long time tends to be easier to attract investors to invest in compared to a newly established company (Chowanda & Nariman, 2023). But, older companies may also face pressure to maintain the reputation that has been built over the years. To maintain a stable performance image, managers in older firms may be more encouraged to engage in earnings management.

Leverage shows how much total assets are financed by debt (Chowanda & Nariman, 2023). According to (Cahyani & Hendra, 2020) the higher the leverage, specify the greater the amount of debt the company uses to fund assets. Companies must comply with the restrictions in the debt agreement. With increasing debt, the restrictions that must be obeyed also increase, thereby increasing the risk of covenant violations and the cost of technical failures. This can encourage managers to use certain accounting methods or take actions to increase profits, which in turn increases the likelihood of earnings management.

Literature Review

Agency Theory

Earnings management is based on agency theory, which was introduced by (Jensen & Meckling, 1976). This theory explains that in the relationship between shareholders (principal) and managers (agent), there is a potential conflict of interest because both parties have different goals. According to (Silviana & Sambuaga, 2022) this conflict occurs because managers (agents) often have greater access to company operational information than shareholders (principals). As a result, the principal cannot ensure that the manager (agent) works in accordance with the interests and wishes of the shareholders (principal). This inability of the principal to supervise creates room for managers to make decisions that may be more favorable for themselves, rather than for the interests of shareholders, which in turn can encourage earnings management practices (Putriana et al., 2018). When managers experience a labor productivity gap, earnings management will be their choice to create a positive impression to shareholders (Bhuyan & Hasan, 2022).

Hypotheses Development

The Effect of Labor Productivity Gap on Earnings Management

In accordance with agency theory, there is potential for information asymmetry where managers have more information about the company's internal conditions than shareholders. This situation can encourage managers to act opportunistically to maintain or improve their performance perceptions (Goffman, 2016). Labor productivity gap is a labor productivity target that cannot be achieved by managers in a given year (Bhuyan & Hasan, 2022). A high labor productivity gap can reflect inefficiencies in labor management which can trigger managers to practice earnings management in an effort to cover up these weaknesses. When a labor productivity gap occurs, it will create pressure for managers to take actions aimed at covering or reducing the negative impact of the productivity decline. Managers may be encouraged to practice earnings management as an effort to hide the labor productivity gap and maintain the company's

image. Previous research conducted by (Bhuyan & Hasan, 2022) found that the labor productivity gap has a positive effect on earnings management. With reference to the results of these studies, the hypothesis in this study is formulated as follows:
H_1: Labor Productivity Gap has a positive effect on earnings management

The Effect of ROA (Return On Assets) on Earnings Management

ROA (Return on Assets) represents the level of profitability achieved by the company through the use of existing assets (Karina & Sutandi, 2019). In general, the profitability value of a company is used as an indicator to measure the performance of a company. The higher the profitability of a company, the better the performance of managers in the opinion of shareholders because it shows the effectiveness of managers in generating profits. (Lestari & Wulandari, 2019). If ROA is high, the company is considered efficient in using its assets, so managers feel no need to carry out earnings management. According to (Nafis & Sebrina, 2023) when companies with a high level of profitability are faced with a decrease in profits, management is less motivated to carry out earnings management. In addition, a high ROA indicates good company performance so that shareholders will receive greater profits and management will also get bigger bonuses (Nafis & Sebrina, 2023). Previous research conducted by (Nafis & Sebrina, 2023; Fatmala & Riharjo, 2021) shows that ROA has a negative effect on earnings management. With reference to the results of these studies, the hypothesis in this study is formulated as follows:
H_2: ROA (Return On Assets) has a negative effect on earnings management

The Effect of Firm Size on Earnings Management

The relationship between firm size and earnings management practices is ambiguous, but firm size is also important to influence the quality of reported information (Cristi & Edi, 2022). According to agency theory, large companies tend to have higher agency costs than small companies (Yuliastuti & Nurhayati, 2023). This is due to greater operational complexity and a larger number of shareholders. The larger the firm size of the company, the greater the likelihood that managers will engage in earnings management practices to overcome agency problems (Cahyani & Hendra, 2020). In previous research which revealed that firm size has a positive effect on earnings management (Yuliastuti & Nurhayati, 2023; Kamalita, 2022; Cahyani & Hendra, 2020). Based on the results of these studies, the hypothesis in this study is formulated as follows:
H_3: Firm Size has a positive effect on earnings management

The Effect of Firm Age on Earnings Management

The age of the firm reflects its ability to survive and shows that the company is able to compete and take advantage of business opportunities that exist in the economy (Agustia & Suryani, 2023). The duration of the company's establishment shows its ability to survive amidst intense competition between companies (Chowanda & Nariman, 2023). According to agency theory, firm age can affect the level of agency conflict and managers' approach to managing financial statements. Long-established companies tend to be easier to attract investors to invest in compared to newly established companies (Chowanda & Nariman, 2023). However, older companies may also face pressure to maintain the reputation that has been built over the years. To maintain a stable performance image, managers in older companies may be more encouraged to perform earnings management. Previous research conducted by (Chowanda & Nariman, 2023; Agustia & Suryani, 2023; Kalbuana et al., 2022) shows

that firm age has a positive effect on earnings management. Based on the results of this study, the following hypothesis can be formulated:
H_4: Firm Age has a positive effect on earnings management

The Effect of Leverage on Earnings management

According to (Cristi & Edi, 2022) leverage is a representation of how much part of the company's total assets is financed through loans, including both short-term and long-term loans. Leverage shows how much total assets are financed by debt (Chowanda & Nariman, 2023). According to (Cahyani & Hendra, 2020) the higher the leverage, the greater the amount of debt the company uses to fund assets. Companies must comply with the restrictions in the debt agreement. With increasing debt, the restrictions that must be obeyed also increase, thereby increasing the risk of covenant violations and the cost of technical failures. This can encourage managers to use certain accounting methods or take actions to increase profits, which in turn increases the likelihood of earnings management. Previous research conducted by (Yuliastuti & Nurhayati, 2023; Cahyani & Hendra, 2020; Karina & Sutandi, 2019; Lestari & Wulandari, 2019) shows that leverage has a positive effect on earnings management, so based on the results of this study, the following hypothesis can be formulated:
H_5: Leverage has a positive effect on earnings management

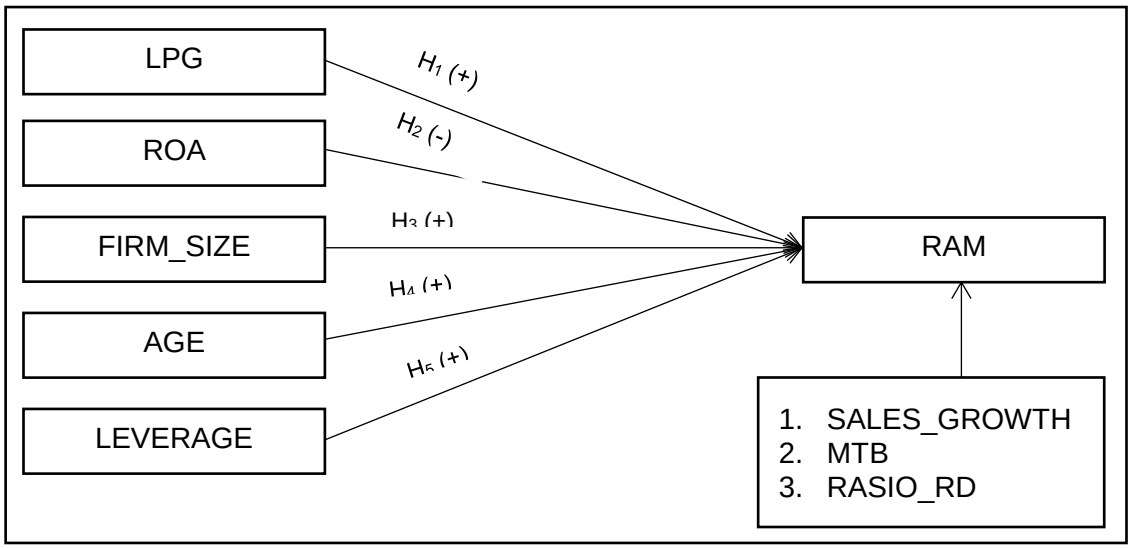

Figure 1. Research Framework

2. METHOD

2.1 *Research Design*

The main objective of this study is to determine the effect of labor producticity gap on earnings management in non-cyclical consumer sector companies listed on IDX / BEI in the 2019-2022 period. As a result, the approach applied in this research is quantitative research method. Research with quantitative methods is a research method based on the philosophy of positivism which is used to examine certain populations or samples, data collection is carried out using research instruments, the data analyzed is quantitative or statistical which aims to describe and test predetermined hypotheses (Sugiyono, 2018).

2.2 *Participants/Sample Selection and Data Sources*

The population used in this study consisted of non cyclicals consumer sector companies listed on the Indonesia Stock Exchange (IDX / BEI) and published annual reports during the 2019-2022 period, namely 104 companies. The sample used in this study was 64 companies that met the sample criteria, so that the observation data during the 2019-2022 period was 256 observation data. Sampling in this study using non-probability sampling, namely with purposive sampling technique, the criteria used for sampling are as follows:

Table 1. The Sampling Criteria

No.	Criteria for Sample Selection	Total
1.	Non-cyclicals consumer sector companies listed on IDX / BEI in 2019-2022	104
2.	Non-cyclicals consumer sector companies that did not publish annual reports during the period 2019-2022	(32)
3.	Companies that do not have information in the annual report used in the study	(8)
Total research sample		**64**
Total research sample during 2019-2022 (64 × 4 years)		**256**

2.3 *Instrumentation/ Data Collection*

2.3.1 Dependent Variable
Earning Management (RAM)

In this study, earnings management is measured using real activities manipulation. Through real activities manipulation, earnings management can be done through cash flow from operations, production costs and discretionary expense. Earnings management measurement with real activities manipulation is calculated by following previous research (Bhuyan & Hasan, 2022; Barus et al., 2019; Roychowdhury, 2006).

1. **Cash flow from operations**

   Real activities manipulation can be detected through cash flow from operations by using abnormal cash flow from operations (ABN_CFO). Abnormal cash flow from operations is obtained from the difference between actual cash flow from operations (adjusted for total assets in the previous period) and cash flow from normal operating activities using the estimated coefficients from the following regression equation (Roychowdhury, 2006).

$$\mathrm{CFO_t}/\mathrm{AT_{t-1}} = \alpha + \beta_1(1/\mathrm{AT_{t-1}}) + \beta_2(\mathrm{Sales_t}/\mathrm{AT_{t-1}}) + \beta_3(\delta\mathrm{Sales_t}/\mathrm{AT_{t-1}}) + \varepsilon_{it} \quad \textbf{(1)}$$

   $\mathrm{CFO_t}$: normal cash flow from operations
   $\mathrm{AT_t}$: assets total for the year
   $\delta\mathrm{Sales}$: the change in sales from the previous year
   Residual represents abnormal cash flow

2. **Discretionary expenses**

   Real activities manipulation can be detected through discretionary expenses using abnormal discretionary spending (ABN_DisExp). Abnormal discretionary expenses is obtained from the difference between actual discretionary expense and normal discretionary expense using the estimated coefficients from the following equation model (Roychowdhury, 2006):

$$\mathrm{DiscExp_t}/\ \mathrm{AT_{t-1}} = \alpha + \beta_1(1/\mathrm{AT_{t-1}}) + \beta_2(\mathrm{Sales_{t-1}}/\mathrm{AT_{t-1}}) + \varepsilon_{it} \quad \textbf{(2)}$$

$\mathrm{DiscExp_t}$: discretionary expenses in year t include R&D expenses; advertising expenses; and selling, general and administrative expenses.

3. Production cost

Real activities manipulation can be seen by using abnormal production costs (ABN_PROD). Abnormal production costs are obtained from the difference between actual production costs and normal production costs using the following regression model (Roychowdhury, 2006):

$$\mathrm{PROD_t}/\ \mathrm{AT_{t-1}} = \alpha + \beta_1(1/\mathrm{AT_{t-1}}) + \beta_2(\mathrm{Sales_t}/\mathrm{AT_{t-1}}) + \beta_3(\delta\mathrm{Sales_t}/\mathrm{AT_{t-1}}) + \beta_4(\delta\mathrm{Sales_t}/\mathrm{AT_{t-1}}) + \varepsilon_{it} \quad \textbf{(3)}$$

Abnormal cash flow from operations (ABN_CFO), abnormal discretionary expense (ABN_DisExp) and abnormal production costs (ABN_PROD) are summed to determine the overall effect of earnings management through real activities manipulation. Abnormal cash flow from operations and abnormal discretionary expense are multiplied by (-1) before summing, this is done to ensure that all variables have a consistent effect on the variable (Barus et al., 2019). The following is the formula for real activities manipulation:

RAM = AbnCFO*(-1) + AbnDisExp*(-1) + AbnPROD **(4)**

2.3.2 Independent Variable

Labor Producticity Gap

Labor productivity is a benchmark to assess the extent to which workers are used effectively in the production process to achieve the desired results (Ukkas, 2017). Companies set a target labor productivity level at the beginning of the year and try to match the current labor productivity with the target labor productivity level (Bhuyan & Hasan, 2022; Datta et al., 2005; Koch & Mcgrath, 1996). Labor productivity gap is a labor productivity target that cannot be achieved by managers in a given year (Bhuyan & Hasan, 2022). A high labor productivity gap can reflect inefficiencies in labor management that can trigger managers to practice earnings management in an effort to cover up these weaknesses. The model calculated to determine the labor productivity gap is (Koch & Mcgrath, 1996):

LPG = Net sales : Total number of employees

ROA (Return on Assets)

ROA is a financial performance indicator that provides an overview of a company's ability to generate profits using its assets (Cristi & Edi, 2022). The ROA formula is as follows:

$$\text{ROA} = \frac{\text{Profit for the year}}{\text{Asset total}}$$

Firm Size

The relationship between firm size and earnings management practices is still ambiguous, company size is also important to affect the quality of information reported (Cristi & Edi, 2022). Firm size is measured using the natural logarithm of asset value as follows (Barus et al., 2019):

FIRM_SIZE = Log (Asset total)

Firm Age

The length of a company's establishment is often considered an indicator of how long the company has been operating, and can be an illustration of the size of the company from large to small scale. The older the company, the more it seeks to improve performance. Companies that have been around longer tend to improve their financial reporting practices over time (Cristi & Edi, 2022). The measurement of company age is to take into account the period since the company was founded.

Leverage

According to (Cristi & Edi, 2022) leverage is a representation of how much part of the company's total assets is financed through loans, including both short-term and long-term loans. The leverage variable is measured using the following formula:

$$\text{Leverage} = \frac{\text{Liability}}{\text{Asset total}}$$

2.3.3 Control Variable

Sales Growth

Sales growth is an indicator that shows the percentage increase in sales levels from one year to the next. The level of sales growth can provide an overview of the potential for increased profits, which then encourages managers to think of various strategies to optimize results (Fionita & Fitra, 2021). The formula for sales growth is:

$$\text{Sales Growth} = \frac{(\text{Sales of this period} - \text{Sales of the previous period})}{\text{Sales of the previous period}}$$

MTB (Market to book)

MTB is a ratio used to assess the financial manifestation and growth potential of a company and describes the market value of the company's equity compared to its book value (Cristi & Edi, 2022). The MTB formula is as follows:

$$\text{MTB} = \frac{\text{Market Price per share} + \text{Number of shares outstanding}}{\text{Equity}}$$

Rasio R & D

Research and development (R&D) activities play an important role in innovation. R&D aims to create new products or improve existing products to attract consumers, which in turn can increase the number and loyalty of consumers, thus potentially increasing company revenue (Kurniawan & Mertha, 2016). The R&D ratio is calculated by the following formula:

$$\text{Rasio R\&D} = \frac{\text{R\&D Expenses}}{\text{Asset total}}$$

2.4 *Data Analysis/ Estimating Model/ Variable Measurement*

This study uses panel data regression with Eviews 10 software, combining time series and cross section data. According to (Alghifari, 2021) there are three tests to select panel data estimation techniques, namely the Chow test, Hausman test, and Lagrange multiplier (LM) test. The regression model equation for this study is as follows:

$$\mathbf{RAM_{it} = \beta_0 + \beta_1 LPG_{it} + \beta_2 ROA_{it} + \beta_3 FIRM\_SIZE_{it} + \beta_4 AGE_{it} + \beta_5 LEVERAGE_{it} \beta_5 SALES\_GROWTH_{it} + \beta_6 MTB_{it} + \beta_7 RASIO\_RD_{it} + \varepsilon_{it}}$$

3. RESULT AND DISCUSSION
3.1 Result

3.1.1 Descriptive Statistic Analysis

Table 2. Descriptive Statistic Test Results

	RAM	LPG	ROA	FIRM_SIZE	FIRM_AGE	LEVERAGE	SAL_GROW	MTB	RASIO_RD
Mean	0.000000586	20.9248	0.0431	12.6184	40.4844	0.5126	0.1049	3.2972	0.0025
Median	0.210300000	20.7405	0.0406	12.6557	33	0.4885	0.0719	1.3270	0.0000
Maximum	2.616700000	24.0045	0.6072	14.2563	116	2.3119	3.1635	60.6718	0.1596
Minimum	-3.980000000	18.4537	-0.5825	11.0099	5	0.0979	-0.8549	-0.3262	0.0000
Std. Dev.	1.185642000	1.1098	0.1186	0.6965	25.4309	0.2869	0.3513	7.1186	0.0161
Skewness	-0.847452000	0.4208	0.1960	-0.0091	1.3317	2.4096	3.8128	5.5857	7.8041
Kurtosis	4.225570000	2.5992	9.6521	2.5674	4.2902	13.8243	32.3484	38.3394	65.1730
Jarque-Bera	46.6637	9.2687	473.6401	1.9998	93.4259	1497.494	9807.741	14652.52	43830.36
Probability	0.0000	0.0097	0.0000	0.0368	0.0000	0.0000	0.0000	0.0000	0.0000
Sum	0.0001	5356.8	11.0416	3230.305	10364	131.2232	26.8422	844.0807	0.6442
Sum Sq. Dev.	358.4656	314.1	3.5859	123.7043	164915.9	20.9961	31.4627	12922.1	0.0658
Observations	256	256	256	256	256	256	256	256	256

(Source: Output Eviews 10, 2024)

Based on Table 2. the results of descriptive statistical tests can be seen that the average RAM variable is 0.000000586, the standard deviation is 1.1856, so the average value is smaller than the standard deviation which indicates that the data deviation in the sample is relatively large. The minimum value is -3.98 and the maximum value is 2.6167. The average value of the LPG variable of 20.9248 is bigger than the standard deviation of 1.1098, this indicates a relatively small data deviation. The minimum value is 18.4537 and the maximum value is 24.0045. The average value of the ROA variable is 0.0431 less than the standard deviation of 0.1185, this indicates a relatively large data deviation. The minimum value is -0.5825 and the maximum value is 0.6072.

Furthermore, the average value of the FIRM_SIZE variable of 12.6183 is greater than the standard deviation of 0.6965, this indicates that the data deviation is relatively small. The minimum value is 11.0099 and the maximum value is 14.2563. The average value of the AGE variable of 40.4843 is greater than the standard deviation of 25.4308, this indicates a relatively small data deviation. The minimum value is 5 and the maximum value is 116. The average value of the LEVERAGE variable is 0.5125 greater than the standard deviation of 0.2869, this indicates a relatively small data deviation. The minimum value is 0.0979 and the maximum value is 2.3119.

3.1.2 Panel Data Regression Analysis Results

Table 3: Regression Test Results (FEM)

Dependent Variable: RAM
Method: Panel Least Squares
Date: 09/16/24 Time: 10:42
Sample: 2019 2022
Periods included: 4
Cross-sections included: 64
Total panel (balanced) observations: 256

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-28.44092	9.470573	-3.003084	0.0030
LPG	-0.088436	0.210030	-0.421062	0.6742
ROA	-1.730069	0.615311	-2.811701	0.0055
FIRM_SIZE	2.043610	0.778493	2.625086	0.0094
FIRM_AGE	0.102668	0.042571	2.411677	0.0169
LEVERAGE	0.839211	0.420458	1.995947	0.0474
SALES_GROWTH	-0.150526	0.142877	-1.053535	0.2935
MTB	0.000447	0.016366	0.027309	0.9782
RASIO_RD	2.647982	16.24008	0.163052	0.8707

(Source: Output Eviews 10, 2024)

Based on the regression test results in table 3, the regression model can be formulated as follows:

RAM = -28.4409246383 - 0.0884356534034*LPG - 1.7300692904*ROA + 2.04361035742*FIRM_SIZE + 0.102668381668*FIRM_AGE + 0.839211267486*LEVERAGE - 0.150526097712*SALES_GROWTH + 0.00044694866618*MTB + 2.64798154971*RASIO_RD

3.1.3 F test

Table 4. F Test Results

R-squared	0.779470	Mean dependent var	5.86E-07
Adjusted R-squared	0.694374	S.D. dependent var	1.185642
S.E. of regression	0.655464	Akaike info criterion	2.225311
Sum squared resid	79.05242	Schwarz criterion	3.222392
Log likelihood	-212.8398	Hannan-Quinn criter.	2.626333
F-statistic	9.159910	Durbin-Watson stat	2.486804
Prob(F-statistic)	0.000000		

(Source: Output Eviews 10, 2024)

Based on the test results in table 4, it shows that the probability F statistic value is 0.000000 or less than 0.05, which means that the independent variable is able to influence the dependent variable.

3.1.4 Test Coefficient of Determination (R^2)

Table 5. Test Results of the Coefficient of Determination (R^2)

R-squared	0.779470	Mean dependent var	5.86E-07
Adjusted R-squared	0.694374	S.D. dependent var	1.185642
S.E. of regression	0.655464	Akaike info criterion	2.225311
Sum squared resid	79.05242	Schwarz criterion	3.222392
Log likelihood	-212.8398	Hannan-Quinn criter.	2.626333
F-statistic	9.159910	Durbin-Watson stat	2.486804
Prob(F-statistic)	0.000000		

(Source: Output Eviews 10, 2024)

The results of the coefficient of determination (R^2) test in table 5 obtained an Adjusted R-Squared value of 0.694374 (69.4374%) indicates that the variables Labor Producticity Gap, ROA, Firm Size, Firm Age, and Leverage along with the control variables are able to explain the Earnings Management variable by 69.4%, the remaining 30.6% is explained by other variables outside the model.

3.1.5 T Test

Table 6. T test results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-28.44092	9.470573	-3.003084	0.0030
LPG	-0.088436	0.210030	-0.421062	0.6742
ROA	-1.730069	0.615311	-2.811701	0.0055
FIRM_SIZE	2.043610	0.778493	2.625086	0.0094
FIRM_AGE	0.102668	0.042571	2.411677	0.0169
LEVERAGE	0.839211	0.420458	1.995947	0.0474
SALES_GROWTH	-0.150526	0.142877	-1.053535	0.2935
MTB	0.000447	0.016366	0.027309	0.9782
RASIO_RD	2.647982	16.24008	0.163052	0.8707

(Source: Output Eviews 10, 2024)

3.2 Discussion

3.2.1 The Effect of Labor Productivity Gap on Earnings Management

Based on the results of the regression analysis above, the regression coefficient of LPG has a negative sign of -0.088436 and the t-statistic probability value of LPG is 0.6742 (bigger than 0.05) it shows that LPG has no effect on RAM so H_1 is not supported. Based on the observation data in this study 256 data, it was found that 146 data were below the mean value of the LPG variable, which is 20.9248. this figure shows that more data is below the mean (as much as 110 data is above the mean). So it can be concluded that the labor producticity gap cannot affect earnings management. This is because the labor producticity gap is more related to the efficiency and effectiveness of labor in producing output (Ukkas, 2017), while earnings management is related to the manipulation of corporate earnings information in financial statements (Musa et al., 2023). Both of them operate on different dimensions, where the labor

productivity gap is more related to operations and labor performance (Bhuyan & Hasan, 2022), while earnings management is more accounting and financial (Bouaziz et al., 2020).

The results of this study are not in line with the results of previous studies conducted by (Bhuyan & Hasan, 2022; Kim et al., 2012) which show that the labor productivity gap has a positive effect on earnings management. This difference in results indicates that the characteristics of the company or country and differences in the measurement of the variables studied affect the relationship between the labor productivity gap and earnings management.

3.2.2 The Effect of ROA (Return On Assets) on Earnings Management

Based on the results of the regression analysis above, the ROA regression coefficient has a negative sign of -1.730069 and a t-statistic probability value of 0.0055 (smaller than 0.05) these results indicate ROA has a negative effect on RAM so H_2 is supported. These results indicate that the higher the ROA, the lower the possibility of managers doing earnings management. If ROA is high, the company is considered efficient in using its assets, so managers feel no need to carry out earnings management. According to (Nafis & Sebrina, 2023) when companies with a high level of profitability are faced with a decrease in profits, management is not too motivated to carry out earnings management. In addition, a high ROA indicates good company performance so that shareholders will receive greater profits and management will also get bigger bonuses. Thus, managers do not tend to take advantage of information asymmetry to carry out earnings management (Nafis & Sebrina, 2023).

The results of this study are consistent with research (Nafis & Sebrina, 2023; Fatmala & Riharjo, 2021) which shows that ROA has a negative effect on earnings management. The results of this study are not consistent with research conducted by (Lestari & Wulandari, 2019; Agustia & Suryani, 2023; Kalbuana et al., 2022) which shows that ROA has a positive effect on earnings management.

3.2.3 The Effect of Firm Size on Earnings Management

Based on the regression test results above, the FIRM_SIZE regression coefficient is positive at 2.043610 and the t-statistic probability value is 0.0094 (smaller than 0.05) these results indicate that FIRM_SIZE has a positive effect on RAM so H_3 is accepted. These results indicate that the larger the company size, the greater the likelihood that managers will engage in earnings management.

According to (Cristi & Edi, 2022) firm size affects the quality of information reported. The size of the company is proportional to the information disclosed, large companies usually disclose more information than small companies (Fandriani & Tunjung, 2019). According to agency theory, large companies tend to have higher agency costs than small companies (Yuliastuti & Nurhayati, 2023) and this indicates greater opportunistic practices (Jensen & Meckling, 1976). This means that the larger the company's firm size, the greater the likelihood that managers will engage in earnings management practices to overcome agency problems (Cahyani & Hendra, 2020).

This research is supported by previous research which found that firm size has a positive effect on earnings management, as shown in research (Chowanda & Nariman, 2023; Yuliastuti & Nurhayati, 2023; Kamalita, 2022; Cahyani & Hendra, 2020).

3.2.4 The Effect of Firm Age on Earnings Management

Based on the regression results above, the AGE regression coefficient has a positive sign of 0.096490 and a t-statistic probability value of 0.0203 (smaller than 0.05)

these results indicate that AGE has a positive effect on RAM so H_4 is accepted. This result indicates that the older the company, the greater the tendency of the company to carry out earnings management. The results of this study are in line with agency theory, firm age can affect the level of agency conflict and managers' approach to managing financial statements.

The duration of the company's establishment shows its ability to survive amidst intense competition between companies (Chowanda & Nariman, 2023). Older companies may face pressure to maintain the reputation that has been built over the years. To maintain a stable performance image, managers in older companies may be more encouraged to perform earnings management.

The results of this study are supported by previous research conducted by (Chowanda & Nariman, 2023; Agustia & Suryani, 2023; Kalbuana et al., 2022) which shows that firm age has a positive effect on earnings management.

3.2.5 The Effect of Leverage on Earnings Management

Based on the regression test results above, the LEVERAGE regression coefficient has a positive sign of 0.839211 and a t-statistic probability value of 0.0474 (smaller than 0.05) these results indicate that LEVERAGE has a positive effect on RAM so H_5 is accepted. This means that the higher the company's leverage level, the more likely it is that managers are involved in earnings management.

According to (Cahyani & Hendra, 2020) the higher the leverage, the greater the amount of debt the company uses to fund assets. Companies must comply with the restrictions in the debt agreement. With increasing debt, the limits that must be obeyed also increase, thereby increasing the risk of covenant violations and the cost of technical failures. This can encourage managers to use certain accounting methods or take actions to increase profits, which in turn increases the likelihood of earnings management.

The results of this study are supported by previous research conducted by (Yuliastuti & Nurhayati, 2023; Cahyani & Hendra, 2020; Karina & Sutandi, 2019; Lestari & Wulandari, 2019; Barus et al., 2019) which shows that leverage has a positive effect on earnings management.

4. CONCLUSION

The regression results show that the labor productivity gap has no significant effect on earnings management. This shows that differences in labor productivity gaps in a company cannot affect managers' efforts in earnings management. In agency theory, there is potential for information asymmetry, where managers have more information about the company's internal conditions than shareholders. This situation can encourage managers to act opportunistically to maintain or improve their performance perceptions. The results of this study contradict agency theory, because in this study it was found that the labor producticity gap has no significant effect on earnings management, so it does not support the predictions of agency theory.

This study reveals several findings regarding the factors that influence earnings management. The first factor is ROA, the analysis results show that ROA has a negative influence on earnings management. The second factor is company size, company size has a positive effect on earnings management. The third factor is company age, company age also has a positive effect on earnings management. The fourth factor is leverage, in this study it was found that leverage has a positive effect on earnings management.

This finding has important implications for company owners and investors who need to strengthen supervision and ensure transparency in financial reports especially in companies with high leverage, older age, and larger size. While this research contributes, there are limitations such as only on non-cyclical consumer companies so that the results cannot be generalized to other sectors.

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