

Financial Performance and Earnings Management: The Moderating Role of Digital Transformation

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ABSTRACT

This study aims to examine the effect of financial performance on earnings management and the moderating role of digital transformation in this relationship. Financial performance is proxied by Return on Assets (ROA) and firm size, earnings management is measured using discretionary accruals based on the Modified Jones Model, and digital transformation is measured through a digital keyword disclosure index derived from company annual reports. The population consists of infrastructure sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2021–2024, with a purposive sample of 39 companies. Data analysis employs Moderated Regression Analysis (MRA) using IBM SPSS Statistics 26. The findings indicate that ROA and firm size do not significantly affect earnings management directly. Similarly, digital transformation does not moderate the relationship between ROA and earnings management. However, digital transformation significantly moderates the effect of firm size on earnings management, where large infrastructure companies with intensive digital transformation adoption exhibit a stronger tendency toward earnings management. These findings suggest that digital transformation plays a double-edged role in financial reporting governance and does not automatically reduce managerial opportunism; rather, it may generate new performance pressures that encourage earnings management in larger firms. This study contributes to the accounting literature in the digital era, particularly in understanding the interaction

between digital transformation and financial reporting in the Indonesian infrastructure sector.

Keywords: Digital Transformation; Earnings Management; Financial Performance; Firm Size; Infrastructure Sector; Return on Assets

INTRODUCTION

The infrastructure sector has a strategic role in encouraging national economic growth, as it is the foundation for the smooth running of industrial activities, distribution of goods, and connectivity between regions (Shi et al., 2024). But behind their important role, infrastructure companies listed on the Indonesia Stock Exchange (IDX) face significant financial performance pressures due to high capital investment needs, income fluctuations, and dependence on government policies (Hikmah & Haldy, 2024). This condition creates an incentive for management to carry out profit management practices to meet the expectations of stakeholders.

Profit management is the manager's action of manipulating financial statement information to achieve certain goals, such as maintaining performance that is both visible to investors and creditors (Scott & O'Brien, 2019). This practice was born out of agency conflicts as described by Jensen & Meckling, (1976), where the relationship between the principal and the agent creates an information asymmetry that allows the manager to act opportunistically in his own self-interest. In this context, poor financial performance can encourage managers to "manage" profits so that financial statements look better than they actually do (Handayani & Mardiansyah, 2021).

Financial performance is a reflection of a company's ability to manage its resources efficiently and effectively (Lukitasari et al., 2022). Return on Assets (ROA) is one of the most widely used financial performance proxies because it reflects the effectiveness of asset use in generating profits (Khosasi et al., 2024). Previous research has shown that profitability has a significant effect on profit management practices; When actual profits do not reach the set target, managers are encouraged to perform accrual engineering to make the financial statements look satisfactory (Dechow et al., 1995). On the other hand, firm size also affects the tendency of profit management, as large companies generally have better governance structures and get stricter supervision from analysts and regulators (Joe & Ginting, 2022).

Various empirical studies show inconsistent results regarding the influence of financial performance on profit management. Rahma & Dillak, (2021) found that profitability has a negative effect on profit management, while Khosasi et al., (2024) found that company size has a negative effect on profit management in manufacturing companies in Indonesia. The inconsistency of these results indicates the possibility of moderation variables that affect the

direction and strength of the relationship between financial performance and profit management, one of which is digital transformation.

Digital transformation has become a strategic agenda for companies around the world in line with the rapid development of the digital economy (Zang & Wei, 2025). The application of digital technologies such as artificial intelligence, big data, cloud computing, and blockchain in a company's business processes is believed to be able to increase the transparency of financial information, strengthen internal control systems, and reduce information asymmetry between managers and shareholders (Fang et al., 2023). Zang & Wei, (2025) prove that digital transformation significantly suppresses corporate profit management practices by tightening data-based monitoring of managerial behavior. Furthermore, Lou et al., (2024) found that corporate digitalization correlates negatively with real profit management, indicating that digital technology narrows the space for managers to manipulate financial figures.

In the Indonesian context, the implementation of digital transformation in the infrastructure sector is still in its early stages compared to the banking and technology sectors (Siwi et al., 2024). However, OJK and IDX regulations that require the disclosure of digital-based information and increasing technology penetration among public companies encourage the acceleration of digital transformation adoption in this sector. Thus, digital transformation has the potential to be a moderating factor that determines whether the influence of financial performance on profit management is getting stronger or weaker.

Previous research on the relationship between financial performance and profit management has been extensive, but research that specifically places digital transformation as a moderation variable, especially in infrastructure sector companies in Indonesia, is still very limited. This research gap is the main foundation of this research. This study aims to test and analyze the influence of financial performance proxied by ROA and company size on profit management, as well as to test the role of digital transformation as a moderating variable in infrastructure sector companies listed on the IDX for the 2021–2024 period. The results of this research are expected to make a theoretical contribution to the development of agency theory in the digital era, as well as practical implications for company management, investors, and regulators in understanding the dynamics of financial reporting in Indonesia's infrastructure sector.

Agency Theory. Jensen & Meckling, (1976) define agency theory as the contractual relationship between principals (shareholders) and agents (managers) in managing company resources. Agency conflicts arise because both parties have different interests, where managers tend to act to maximize their personal interests rather than the interests of shareholders (Jensen & Meckling, 1976). In the context of financial reporting, the information asymmetry arising from this agency relationship provides an opportunity for managers to manipulate financial statements to achieve set performance targets (Scott & O'Brien, 2019). Agency theory is the main basis in this study to understand why managers in infrastructure

sector companies are encouraged to do profit management when financial performance does not reach stakeholder expectations.

Signaling Theory. Signal theory explains how companies convey information to external parties, especially investors, through financial statements as a signal of true financial conditions (Muslimin & Bahri, 2022). If the financial statements show a consistent increase in profit, it is perceived as a positive signal that reflects good company performance (Dewi & Efendi, 2023). Conversely, when profitability declines, managers are encouraged to manage profit figures in order to keep giving profitable signals to investors (Spence, 1973). In this study, signal theory is relevant to explain how low financial performance drives profit management behavior, as well as how digital transformation changes the quality of financial information signals that companies deliver to the market.

Financial Performance. Financial performance reflects a company's ability to manage its resources efficiently and effectively to generate value for stakeholders (Lukitasari et al., 2022). Return on Assets (ROA) is one of the most widely used financial performance proxies because it reflects the effectiveness of the use of a company's total assets in generating net profit (Khosasi et al., 2024). The higher the value of ROA, the better the company's ability to utilize its assets to create profitability (Hikmah & Haldy, 2024). In addition to profitability, firm size is also an important dimension of financial performance because large-sized companies generally have greater resource capacity, more established governance structures, and a broader level of disclosure of information to the public (Joe & Ginting, 2022). Research on infrastructure sector companies on the IDX shows that financial performance measured through ROA and company size has significant implications for management's financial reporting behavior (Hikmah & Haldy, 2024).

Profit Management. Profit management is defined as the action taken by managers to influence or change the information presented in financial statements in order to achieve certain goals (Scott & O'Brien, 2019). This practice is measured using discretionary accrual based on the Jones model modified by Dechow et al., (1995), which separates manager-controlled accrual components from non-discretionary components that are natural. Profit management occurs due to a conflict of interest between managers and shareholders, where managers have incentives to manipulate profits in order to meet performance targets, retain positions, or obtain higher compensation (Jensen & Meckling, 1976). Previous research on companies in Indonesia shows that factors such as profitability, leverage, and company size significantly affect the level of profit management carried out by companies (Joe & Ginting, 2022; Khosasi et al., 2024).

Digital Transformation. Digital transformation refers to the process of integrating digital technology into all aspects of a company's operations, which fundamentally changes the way companies create value, interact with stakeholders, and manage financial information (Fang et al., 2023). The application of technologies such as artificial intelligence, *big data analytics*, cloud computing, and *blockchain* in business processes has been proven to increase information transparency and strengthen the company's internal control system (Zang & Wei,

2025). From a corporate governance perspective, digital transformation narrows the space for managers to manipulate accruals as it improves the accuracy and accessibility of financial data in *real-time* (Liao et al., 2023). Lou et al., (2024) found that corporate digitalization is negatively correlated with real profit management, indicating that digital technology suppresses managerial discretion in manipulating financial performance. On the other hand, in the early stages of its implementation, digital transformation can also create new performance pressures that actually encourage management to look for more hidden ways of manipulation (Lou et al., 2024).

The Effect of Return on Assets (ROA) on Profit Management. Based on agency theory, managers who fail to meet profitability targets are encouraged to use discretionary accrual policies to beautify the appearance of financial statements (Jensen & Meckling, 1976). When a company's ROA is low, managers have a greater incentive to raise reported profits to appear to match investor and creditor expectations (Dechow et al., 1995). Conversely, when ROA is very high, managers tend to lower reported profits to avoid overly high market expectations in future periods, a phenomenon known as *income smoothing* (Scott & O'Brien, 2019). Research by Khosasi et al., (2024) found that profitability has a significant effect on profit management in manufacturing companies in Indonesia. The same thing is confirmed by Aldona & Listari, (2020) who show that the profitability ratio significantly affects the company's profit management behavior. Thus, the hypothesis formulated is as follows:

H1: Return on Assets (ROA) affects profit management.

The Effect of Firm Size on Profit Management. Agency theory predicts that large companies face stricter scrutiny from various external parties, such as analysts, independent auditors, and regulators, so that managers' room for profit management becomes narrower (Joe & Ginting, 2022). But on the other hand, large companies also have higher operational complexity and more accrual components that can be manipulated, so large company sizes can actually facilitate more sophisticated profit management practices (Panjaitan & Dillak, 2021). Signal theory adds the perspective that large firms are encouraged to maintain their reputations in the capital markets by maintaining consistency in earnings reporting, which can encourage *income smoothing* practices (Spence, 1973). Research by Joe & Ginting, (2022) proves that company size has a significant effect on profit management, where larger companies show different profit management tendencies than small companies. Rahma & Dillak, (2021) also confirmed the influence of company size on corporate financial management behavior in Indonesia. Based on this description, the hypothesis formulated is:

H2: Firm size affects profit management.

The Role of Digital Transformation Moderation on the Influence of ROA on Profit Management. Digital transformation is predicted to weaken the relationship between financial performance and profit management through two main mechanisms. First, digitalization improves the quality of information and transparency of financial reporting, thereby reducing information asymmetry, which is the main source of opportunistic behavior of managers

(Fang et al., 2023). When digital-based financial information systems are implemented, managers' ability to unilaterally manipulate discretionary accruals becomes increasingly limited as financial data can be monitored in *real-time* by various parties (Zang & Wei, 2025). Second, from a signal theory perspective, digital transformation is changing the way companies deliver their financial performance information; Companies that have digitally transformed can deliver more accurate and transparent performance signals without the need to manipulate profit figures (Liao et al., 2023). Thus, in companies with a high level of digital transformation, the relationship between ROA and profit management is predicted to weaken because digital systems provide more effective monitoring of managerial behavior. Research by Zang & Wei, (2025) confirms that digital transformation is significantly suppressing corporate profit management practices. Based on these arguments, the hypothesis formulated is:

H3: Digital transformation moderates the influence of Return on Assets (ROA) on profit management.

The Role of Digital Transformation Moderation on the Influence of Company Size on Profit Management. The large size of a company creates a higher complexity of information, but digital transformation can fundamentally change the dynamics of these relationships. In large companies that have adopted digital transformation intensively, *big data analytics* and artificial intelligence systems are able to process large volumes of transactions more accurately, reducing managers' discretion in manipulating accrual components (Lou et al., 2024). On the other hand, in large companies that have not been digitally transformed optimally, operational complexity can actually provide more loopholes for profit management practices (Joe & Ginting, 2022). From the point of view of agency theory, digital transformation in large companies strengthens technology-based oversight mechanisms that reduce information asymmetry between managers and shareholders, thereby suppressing opportunistic incentives for managers (Jensen & Meckling, 1976). Fang et al., (2023) prove that the governance effects of digital transformation are more pronounced in companies of larger size because more massive digital investments result in significant improvements in accounting quality. Based on this description, the hypothesis formulated is:

H4: Digital transformation moderates the influence of firm size on profit management.

METHOD

This study uses a quantitative approach with an associative causal research design, which is a research that aims to test and analyze the influence between variables based on numerical data from the company's financial statements (Sugiyono, 2022). This approach was chosen because the research aims to empirically prove the influence of financial performance on profit management and test the role of digital transformation moderation in these relationships. The data sources used are secondary data in the form of annual financial statements and annual *reports* of infrastructure sector companies listed on the Indonesia Stock

Exchange (IDX) for the 2021–2024 period, which are obtained through the official website of the IDX (www.idx.co.id) and the official website of each sample company.

The population in this study is all infrastructure sector companies listed on the Indonesia Stock Exchange for the period 2021–2024. The sampling technique uses *purposive sampling*, which is the selection of samples based on certain criteria that have been set by the researcher so that the sample obtained is representative and in accordance with the research objectives (Sugiyono, 2022). The sample selection criteria in this study are: (1) companies registered and active on the IDX in the infrastructure sector during the 2021–2024 period consecutively; (2) the company that publishes financial statements and annual reports that have been audited consistently during the observation period; (3) companies that have complete data related to all variables used in the research; and (4) companies that did not experience delisting during the observation period. Based on these criteria, a sample of 39 companies was obtained with a total of 156 observation data during four years of observation.

The analysis technique used in this study is *Moderated Regression Analysis* (MRA) with the help of SPSS software version 26. MRA was chosen because it is able to directly test the role of moderation variables in strengthening or weakening the relationship between independent variables and dependent variables through the formation of interaction variables (Sugiyono, 2022). Before conducting the main hypothesis test, a series of classical assumption tests were carried out which included the normality test (Kolmogorov-Smirnov), the multicollinearity test (VIF), the heteroscedasticity test (Glejser), and the autocorrelation test (Durbin-Watson) to ensure that the estimated regression model meets the requirements of BLUE (*Best Linear Unbiased Estimator*) (Ghozali, 2021).

The regression model equations used in this study are as follows:

Model 1 (without moderation):

$$EM = \alpha + \beta_1 ROA + \beta_2 SIZE + \varepsilon$$

Model 2 (with digital transformation moderation):

$$EM = \alpha + \beta_1 ROA + \beta_2 SIZE + \beta_3 DT + \beta_4 (ROA \times DT) + \beta_5 (SIZE \times DT) + \varepsilon$$

Description: *EM* = discretionary *accruals*; *ROA* = *Return on Assets*; *SIZE* = company size; *DT* = digital transformation; *ROA* × *DT* = variables of *ROA* interaction and digital transformation; *SIZE* × *DT* = interaction variables of company size and digital transformation; α = constant; β = regression coefficient; ε = error.

Hypothesis testing is carried out based on the value of the regression coefficient (β), *t*-value, and significance level (*p*-value) with the threshold of hypothesis acceptance if the *p*-value < 0.05. The determination coefficients (*R*²) and adjusted *R*² (*Adjusted R*²) were used to evaluate the model's ability to explain the variation of dependent variables. Significant interaction variables (*ROA* × *DT* and *SIZE* × *DT*) indicate that digital transformation plays a

role as a moderating variable that changes the direction or strength of the relationship between financial performance and profit management (Ghozali, 2021).

RESULT AND DISCUSSION

Statistics Descriptive

Descriptive statistics provide an overview of the characteristics of the data used in the study. Based on the results of data processing from 156 observations (39 companies \times 4 years: 2021–2024) presented in Table 1, the distribution of minimum, maximum, average, and standard deviation values of each research variable can be determined.

Table 1. Descriptive Statistics of Research Variables

Variabel	N	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis
ROA (X_1)	156	-1,2773	0,2873	0,0174	0,1371	-5,7814	51,8935
Firm Size (X_2)	156	25,1675	33,3337	29,1006	2,0974	0,1844	-0,9430
Digital Transformation (M)	156	0,0000	5,8665	2,7477	1,5496	-0,0479	-0,7691
Earning Management (Y)	156	-1,8116	1,6173	0,0781	0,7001	-0,2437	-0,0171

Source: Research-processed data, 2025 (N = 156 observations; 39 companies \times 4 years)

Based on Table 1, the Return on Assets (ROA) variable has an average value of 0.0174 with a standard deviation of 0.1371, indicating that the average infrastructure sector company on the IDX during the 2021–2024 period earned a profit of 1.74% of its total assets. The minimum ROA value of -1.2773 indicates that there are companies that have suffered considerable losses, while a maximum value of 0.2873 indicates the most profitable company. Very negative skewness values (-5.7814) and very high kurtosis (51.8935) indicate that the ROA distribution is skewed to the left with a very long tail, indicating the presence of companies with extreme losses affecting data distribution.

The firm size variable proxied with the natural logarithm of total assets has an average value of 29.1006 with a standard deviation of 2.0974, indicating that the sample company has a relatively diverse size. A skewness value close to zero (0.1844) indicates a relatively symmetrical distribution. Digital transformation has an average value of 2.7477 with a range

of 0 to 5.8665, reflecting the variation in the level of adoption of digital technology that is quite diverse between infrastructure companies. The profit management variable proxied with discretionary accruals has an average of 0.0781 which is close to zero, indicating that in general the company does not perform extreme profit management, but there is considerable variation (std. dev. = 0,7001).

Classic Assumption Test

Normality Test

The normality test was performed using the Kolmogorov-Smirnov (K-S) method to detect whether the residual model was normally distributed. The results of the normality test are presented in Table 2.

Table 2. Normality Test Results (Kolmogorov-Smirnov)

Variabel	Kolmogorov-Smirnov	Sig.	Remarks
ROA (X ₁)	0,2246	0,000	Abnormal*
Firm Size (X ₂)	0,1047	0,061	Normal
Digital Transformation (M)	0,0604	0,598	Normal
Manajemen Laba (Y)	0,0755	0,321	Normal
Residual Model (Unstandardized)	0,0650	0,505	Normal

Source: Output SPSS 26, data processed by researchers, 2025

* ROA has an abnormal distribution at the data level, but the residual model is normally distributed ($p = 0.505 > 0.05$), so that the residual normality assumption is fulfilled according to the regression analysis requirements (Hair et al., 2019).

Based on Table 2, the variable ROA (X₁) was not normally distributed at the data level (K-S = 0.2246; $p = 0.000 < 0.05$). However, in regression analysis, what is required is the residual normality, not the normality of the individual variables. The results of the normality test on the residual model showed a value of K-S = 0.0650 with a significance of 0.505 ($p > 0.05$), so it can be concluded that the residual model is normally distributed and the assumption of normality is met. In addition, with the number of observations $N = 156 (>30)$,

the central limit theorem ensures that the sampling distribution is close to normal (Ghozali, 2021).

Multicollinearity Test

The multicollinearity test was performed to detect whether there is a high correlation between independent variables in the regression model. Detection was carried out using Variance Inflation Factor (VIF) and Tolerance values. Interaction variables in MRA are dicentering first (mean-centering) to reduce essential multicollinearity (Ghozali, 2021).

Table 3. Multicollinearity Test Results (Model Mean-Centered MRA)

Variabel	Tolerance	VIF	Remarks
ROA (X ₁)	0,584	1,713	No Multicollinearity
Firm Size (X ₂)	0,412	2,425	No Multicollinearity
Digital Transformation (M)	0,432	2,314	No Multicollinearity
ROA × Digital Transformation	0,560	1,786	No Multicollinearity
Firm Size × Digital Transformation	0,897	1,115	No Multicollinearity

Source: SPSS 26 output, data processed by researchers, 2025

Criteria: VIF < 10 and Tolerance > 0.10 indicate no multicollinearity (Ghozali, 2021).

Based on Table 3, all variables in the MRA model have a VIF value of < 10 and a Tolerance > 0.10, so it can be concluded that there is no problem of multicollinearity in this study model. The highest VIF value was 2.425 on the Firm Size variable, which is still well below the threshold of 10. The use of mean-centering techniques successfully overcame the multicollinearity that usually appears in interaction variables in MRA analysis.

Heteroscedasticity and Autocorrelation Test

The heteroscedasticity test is performed using the Breusch-Pagan test to detect whether the residual variance is constant (homoscedastic). While the autocorrelation test was carried out using Durbin-Watson statistics.

Tabel 4. Heteroscedasticity and Autocorrelation Test Results

Variable	Statistic	Sig.	Remarks
Breusch-Pagan (Model 2)	LM = 1,744	0,883	Homoskedastic (no heteroscedasticity)
Durbin-Watson (Model 1)	DW = 0,805	-	Positive autocorrelation (data panel)**
Durbin-Watson (Model 2)	DW = 0,846	-	Positive autocorrelation (data panel)**

Source: SPSS 26 output, data processed by researchers, 2025

** Low DW values in time series panel data are a common condition due to pooled panel data structures. This study used panel data with 39 companies \times 4 years so that low DW is not an obstacle to valid estimation (Gujarati & Porter, 2009).

The results of the Breusch-Pagan test showed a value of LM = 1.744 with a significance of 0.883 ($p > 0.05$), so it can be concluded that there is no heteroscedasticity in the model. Residual variance is homoskedastic, which means the regression model meets the BLUE (Best Linear Unbiased Estimator) assumption. Low Durbin-Watson values (< 1) in both models are a common phenomenon in time-dimensional panel data, where inter-year observations within the same company tend to correlate.

Intervariable Correlation Analysis

Correlation analysis was carried out to see the direction and strength of the linear relationship between the research variables before regression testing was carried out. The Pearson correlation matrix is presented in Table 5.

Table 5. Intervariable Correlation Matrix

Variabel	ROA (X ₁)	Firm Size (X ₂)	Trans. Digital (M)	Profit Management (Y)
ROA (X ₁)	1,0000	0,1184	0,0521	-0,0755
Firm Size (X ₂)	0,1184	1,0000	0,7479	-0,1369
Transformasi Digital (M)	0,0521	0,7479	1,0000	-0,2067
Profit Management (Y)	-0,0755	-0,1369	-0,2067	1,0000

Source: SPSS 26 output, data processed by researchers, 2025

Based on Table 5, there are several important findings from the correlation analysis. First, ROA correlated negatively weakly with profit management ($r = -0.0755$), indicating that the increase in profitability slightly lowers the tendency of profit management. Second, firm size was negatively correlated with profit management ($r = -0.1369$), suggesting that larger companies tend to do less profit management. Third, digital transformation is negatively correlated with profit management ($r = -0.2067$), which is the strongest correlation with dependent variables, indicating that the higher the rate of digitalization of a company, the lower the profit management practices. Fourth, there is a fairly high correlation between firm size and digital transformation ($r = 0.7479$), which can be interpreted that large companies tend to have a higher adoption rate of digital technology.

Regression Analysis Results

Model 1: Regression Without Moderation (Baseline Model)

Model 1 examines the direct influence of financial performance (ROA and firm size) on profit management without including digital transformation moderation variables. The results of multiple regression analysis are presented in Table 6.

Table 6. Model 1 Multiple Regression Results (Without Moderation)

Variabel	B	Std. Error	Beta	t	Sig.	Remarks
(Constant)	0,0781	0,0558	-	1,3995	0,163	-

ROA (X ₁)	-0,3072	0,4111	-0,060	-0,7473	0,456	Insignificant
Firm Size (X ₂)	-0,0433	0,0269	-0,129	-1,6121	0,109	Insignificant

Summary of Model 1 Statistics

R	R Square	Adj. R Square	F Statistic	Sig. F
0,1494	0,0223	0,0095	1,7457	0,178

Source: SPSS 26 output, data processed by researchers, 2025

Dependent variables: Discretionary Accruals; ** p<0.05; * p<0.10

The Model 1 regression equation is as follows:

$$EM = 0,0781 - 0,3072 ROA - 0,0433 SIZE + \varepsilon \dots(8)$$

Based on Table 6, Model 1 was overall insignificant ($F = 1.746$; $p = 0.178 > 0.05$) with a very low coefficient of determination ($R^2 = 0.0223$; $Adj. R^2 = 0.0095$). This means that ROA and firm size together are only able to explain 2.23% of profit management variations, which indicates that financial performance alone is not enough to explain profit management practices in infrastructure sector companies.

Partially, ROA had a negative effect on profit management ($B = -0.307$; $t = -0.747$; $p = 0.456$), but not significantly. Firm size also had a negative effect ($B = -0.043$; $t = -1.612$; $p = 0.109$) but had not reached significance at $\alpha = 5\%$. This shows that H1 (ROA affects profit management) and H2 (firm size affects profit management) cannot be supported by data.

Model 2: Moderated Regression Analysis (MRA)

Model 2 includes the digital transformation variable as a moderator along with the interaction variable between financial performance and digital transformation. The results of MRA are presented in Table 7.

Tabel 7. Model 2: Moderated Regression Analysis (MRA) Results

Variabel	B	Std. Error	Beta	t	Sig.	Remarks
(Constant)	- 0,0235	0,0711	-	-0,3306	0,741	-

Variabel	B	Std. Error	Beta	t	Sig.	Remarks
ROA (X ₁)	-0,1433	0,5229	-0,028	-0,2741	0,784	Insignificant
Firm Size (X ₂)	-0,0050	0,0413	-0,015	-0,1212	0,904	Insignificant
Digital Transformation (M)	-0,1019	0,0538	-0,232	-1,8919	0,060	Marginally Significant*
ROA × Digital Transformation (X ₁ ×M)	0,0809	0,2909	0,028	0,2781	0,781	Insignificant
Firm Size × Digital Transformation (X ₂ ×M)	0,0417	0,0190	0,219	2,1923	0,030	Signifikan (p<0,05)**

Summary of Model 2 Statistics

R	R Square	Adj. R Square	F Statistic	Sig. F	ΔR ²
0,2854	0,0814	0,0508	2,6595	0,025	0,0591

Source: SPSS 26 output, data processed by researchers, 2025

Dependent variables: Discretionary Accruals; ** p<0.05; * p<0.10; Mean-centering variables before interaction formation

The Model 2 regression equation (MRA) is as follows:

$$EM = -0,024 - 0,143 \text{ ROA} - 0,005 \text{ SIZE} - 0,102 \text{ DT} + 0,081 (\text{ROA} \times \text{DT}) + 0,042 (\text{SIZE} \times \text{DT}) + \varepsilon \dots(9)$$

Based on Table 7, Model 2 was overall significant ($F = 2.660$; $p = 0.025 < 0.05$) with an increase in the coefficient of determination to $R^2 = 0.0814$ ($\text{Adj. } R^2 = 0.0508$). The addition of the digital transformation variable and the interaction variable increased the model's explainability by $\Delta R^2 = 0.0591$ or approximately 5.91%, indicating that the digital transformation made a meaningful additional contribution in explaining the variation in profit management.

Of all the variables tested, the interaction variables Firm Size × Digital Transformation (X₂×M) showed a significant influence ($B = 0.042$; $t = 2.192$; $p = 0.030 < 0.05$). These

findings indicate that digital transformation significantly moderates the relationship between company size and profit management. The positive coefficient direction shows that in large companies, the increase in digital transformation actually strengthens the influence of firm size on profit management, which can be interpreted as greater performance pressure on large companies that are digitally transforming to maintain the consistency of reported profits.

Meanwhile, the ROA interaction variable \times Digital Transformation ($X_1 \times M$) showed no significant influence ($B = 0.081$; $t = 0.278$; $p = 0.781$), meaning digital transformation was not shown to moderate the relationship between ROA and profit management. The digital transformation variable as an independent variable showed a marginally significant negative influence ($B = -0.102$; $t = -1.892$; $p = 0.060$), indicating a tendency that the higher the adoption of digital transformation, the lower the company's profit management practices.

Hypothesis Testing Summary

A summary of the test results of all research hypotheses based on the results of Model 1 and Model 2 is presented in Table 8 below.

Table 8. Summary of Hypothesis Testing Results

Hipotesis	Statement	Value t	Sig.	Results
H1	ROA affects Profit Management	-0,747	0,456	Rejected
H2	Firm Size affects Profit Management	-1,612	0,109	Rejected
H3	Digital Transformation moderates the influence of ROA on Profit Management	0,278	0,781	Rejected
H4	Digital Transformation moderates the influence of Firm Size on Profit Management	2,192	0,030	Accepted

Source: Data processed by researchers, 2025; ** $p < 0.05$ (significant); ns = insignificant

The Effect of Return on Assets (ROA) on Profit Management (H1)

The results of the first hypothesis test show that Return on Assets (ROA) has no significant effect on profit management in infrastructure sector companies listed on the IDX for the 2021–2024 period ($\beta = -0.307$; $t = -0.747$; $p = 0.456 > 0.05$). Thus, H1 was rejected.

Although the direction of the negative coefficient is consistent with the theoretical prediction that companies with higher profitability tend to do less profit management, the influence is not statistically strong enough to be demonstrated in a sample of infrastructure firms. These findings can be understood through two main theoretical perspectives.

First, from the point of view of signal theory (Spence, 1973), infrastructure sector companies that already have good profitability do not need to manipulate profit figures because their actual performance is already able to convey positive signals to investors and creditors without accounting engineering. Financial statements that reflect high ROA are already a credible signal regarding the company's health, so managers are not encouraged to do profit management (Muslimin & Bahri, 2022).

Second, from the perspective of agency theory (Jensen & Meckling, 1976), conflicts of interest between principals and agents in the infrastructure sector may be influenced more by regulatory factors, government contracts, and intensive public oversight than by profitability pressures alone. Infrastructure companies in Indonesia, especially those operating in the utilities and transportation sectors, are subject to strict scrutiny from sectoral regulators that limit managers' room to manipulate accruals, regardless of their profitability conditions.

These findings are consistent with the research of Khosasi et al., (2024) which found that profitability does not always have a significant effect on profit management, depending on the context of the industry studied. Dewi & Efendi, (2023) also found a similar thing in property sector companies on the IDX. On the other hand, these findings differ from the research of Aldona & Listari, (2020) which found a significant negative influence of profitability on profit management, which may be due to differences in sample characteristics and observation periods.

The Effect of Firm Size on Profit Management (H2)

The results of the second hypothesis test showed that the size of the company proxied by the natural logarithm of total assets did not have a significant effect on profit management ($\beta = -0.043$; $t = -1.612$; $p = 0.109 > 0.05$). Therefore, H2 was rejected. The p-value of 0.109 is relatively close to the significance limit of 0.10, indicating a trend of negative influence that is statistically not strong enough to be statistically significant at $\alpha = 5\%$.

Although the direction of negative influence is consistent with the theoretical argument that large companies are under more intense scrutiny from various parties securities analysts, big four external auditors, and the financial media so that managers' room to manipulate profits is more limited (Joe & Ginting, 2022), 2022), this condition does not produce enough statistically significant differences in the context of Indonesia's infrastructure sector.

A possible explanation is the existence of opposite influences that eliminate each other. On the one hand, large companies are more supervised so that profit management is reduced. On the other hand, large companies in the infrastructure sector have more complex asset structures with many long-term accrual components (such as infrastructure depreciation,

collateral provision, and concession costs) that are technically easier to manipulate than small companies. These two opposite effects can negate each other, so that the net influence of company size on profit management becomes insignificant.

These findings differ from the research of Joe & Ginting, (2022) which found a significant influence of company size on profit management in a broader sample. This difference is most likely due to the uniqueness of the infrastructure sector which has a different business structure from the manufacturing or service sector in general, including a more stable and predictable income pattern due to long-term contracts with the government.

The Role of Digital Transformation Moderation on the Influence of ROA on Profit Management (H3)

The results of the third hypothesis test showed that the interaction variables of ROA \times Digital Transformation did not have a significant effect on profit management ($\beta = 0.081$; $t = 0.278$; $p = 0.781 > 0.05$). Thus, H3 was rejected. Digital transformation is not proven to be a moderating variable that changes the strength or direction of the relationship between ROA and profit management.

The failure of digital transformation as a moderator in the ROA profit management relationship can be explained through several arguments. First, profitability-based managerial incentives (such as ROA-related bonuses) are highly personal and contractual, so the implementation of digital technology systems at the company level is not necessarily able to change the opportunistic behavior of managers motivated by profit-based compensation. Digital transformation plays a greater role in improving operational efficiency and information transparency, but does not directly change the managerial incentive structure that is at the root of profitability-based profit management motivation (Fang et al., 2023).

Second, for companies with low ROA (which have more potential for profit management), digital technology may not be fully implemented effectively as a supervisory mechanism because large initial investments become an additional burden that worsens financial conditions. In other words, it is possible that companies with low ROA actually have lower rates of digital transformation as well, so the moderation effect cannot work symmetrically across all levels of profitability (Zang & Wei, 2025).

Third, the relatively weak correlation between ROA and profit management ($r = -0.076$) is a fundamental obstacle for digital transformation to show a significant moderation effect. When the relationship between the main variables is already weak, it will be difficult for the moderator variable to show a statistically meaningful influence, regardless of the quality of the moderator itself (Hair et al., 2019).

The Role of Digital Transformation Moderation on the Influence of Firm Size on Profit Management (H4)

The results of the fourth hypothesis test showed that the interaction variables of Firm Size \times Digital Transformation had a significant effect on profit management ($\beta = 0.042$; $t = 2.192$; $p = 0.030 < 0.05$). Thus, H4 was accepted. Digital transformation is proving to be a moderating variable that changes the strength of the relationship between company size and profit management.

The direction of the positive interaction coefficient contains an important meaning and needs to be interpreted carefully. These findings indicate that digital transformation reinforces not weakens the influence of company size on profit management. In other words, in large companies that have a high level of digital transformation, the tendency to practice profit management is actually higher than in large companies with a low level of digitalization.

This phenomenon can be explained through several complementary theoretical perspectives. First, from the perspective of agency theory (Jensen & Meckling, 1976), large companies that make massive investments in digital transformation face higher performance pressures. Stakeholders especially investors have greater expectations for increased efficiency and profits as a result of digitalization. This increased pressure of expectations creates an incentive for managers to maintain the consistency of reported earnings through income smoothing practices, regardless of the company's actual performance conditions.

Second, this argument is strengthened by the findings of Lou et al., (2024) who stated that digital transformation has a double-edged sword effect on financial reporting. On the one hand, digitalization improves operational efficiency and information transparency. On the other hand, the large transformation costs and uncertainty of digitalization results create higher profit volatility in the medium term. Managers of large companies facing earnings volatility due to digitalization tend to use discretionary accrual policies to smooth reported earnings to maintain investor confidence.

Third, from the perspective of signal theory, large companies that are actively transforming digital are more in the spotlight of the public and analysts. The inability to meet profit expectations after massive digital investments will send a negative signal that is much more impactful than on small companies. This creates additional pressure for managers to maintain profit performance through discretionary accruals (Muslimin & Bahri, 2022).

These findings are consistent with the argument of Fang et al., (2023) that the governance effects of digital transformation are more pronounced in large companies, but in different contexts this study finds that the intensity of interaction between large size and high digitalization actually carries greater profit management risks, not less. These results are also in line with the framework of Lou et al., (2024) who identified that in digital-intensive environments, managers tend to shift from traditional accrual-based profit management techniques to more subtle forms of manipulation.

CONCLUSION AND SUGGESTION

The test results show that Return on Assets and company size directly have no significant effect on profit management. This condition occurs because infrastructure companies have relatively stable revenue characteristics due to long-term contracts with the government and strict regulatory supervision, so financial performance is not the main trigger for profit management behavior. In addition, digital transformation has also not been proven to moderate the relationship between Return on Assets and profit management, because profitability-based managerial incentives are contractual and personal so that they do not necessarily change with the application of digital technology at the company level.

The main finding of this study is that digital transformation significantly moderates the influence of company size on profit management, with a positive direction of moderation. This means that in large infrastructure companies that are adopting digital transformation intensively, the trend of profit management practices is even stronger. This phenomenon reflects the dual role of digital transformation in financial reporting governance: large digital investments create pressure on higher performance expectations from investors as well as medium-term profit volatility that encourages managers to flatten reported earnings through discretionary accrual policies. Thus, this study emphasizes that digital transformation does not always play a role as a supervisory mechanism that suppresses management opportunism, and strengthening corporate governance remains an essential complement in the digitalization agenda.

Further research is suggested to add corporate governance variables such as audit quality and institutional ownership as moderation or mediation, use more sophisticated panel data estimation methods to address autocorrelation, and expand the scope of sectors and observation periods to improve the generalization of findings.

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