



The Effect of Asset Productivity and Debt Policy on Financial Performance at PT. Kereta Api Indonesia (Persero) for the 2015-2024 Period

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Article History:

Received : 06-09-2026

Revised : 14-10-2026

Accepted : 16-10-2026

Keywords: *Total Asset Turnover, Debt to Asset Ratio, Return on Assets, Asset Productivity, Debt Policy, Financial Performance*

Abstract : *This study examines the partial and simultaneous relationships of asset productivity, measured by Total Asset Turnover (TATO), and debt policy, measured by the Debt to Asset Ratio (DAR), with financial performance, measured by Return on Assets (ROA), at PT Kereta Api Indonesia (Persero) during 2015–2024. This quantitative study uses secondary data obtained from the company's annual financial reports. The data were analyzed using descriptive statistics, classical assumption tests, multiple linear regression, the coefficient of determination, and t-tests and F-tests with SPSS version 27. The partial test results indicate that TATO is positively but not significantly associated with ROA at the 5% significance level ($t = 2.087$; $p = 0.075$). Similarly, DAR has a negative but statistically insignificant association with ROA ($t = -0.656$; $p = 0.533$). However, the simultaneous test indicates that TATO and DAR are jointly significantly associated with ROA ($F = 7.037$; $p = 0.021$). The coefficient of determination (R^2) is 0.668, indicating that the two independent variables jointly explain 66.8% of the variation in ROA, while the remaining 33.2% is attributable to factors outside the research model. These findings suggest that asset productivity and debt policy, when considered jointly, are statistically associated with financial performance, although neither variable demonstrates an individually significant relationship at the 5% level.*

How to Cite: Putri Wulandari, Koes Indrakoesoema. (2026). *The Effect of Asset Productivity and Debt Policy on Financial Performance at PT. Kereta Api Indonesia (Persero) for the 2015-2024 Period*. 4(4). pp.283-294. <https://doi.org/10.61536/escalate.v4i4.842>



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Introduction

PT Kereta Api Indonesia (Persero) is a state-owned enterprise engaged in railway transportation services and faces challenges in managing resources, particularly fixed assets, and optimal financing policies to achieve maximum financial performance (PT Kereta Api Indonesia (PERSERO), 2024, p. 97). Asset productivity is one measure of a company's effectiveness in utilizing all assets to generate revenue and profits (Kasmir, 2019). High asset productivity reflects a company's ability to use resources efficiently to produce optimal output. In addition, debt policy is an important part of financing because

the use of external funding sources through debt is related to the company's capital structure, financial risk, and profitability. For PT Kereta Api Indonesia (Persero), which has large and complex assets, asset management and debt policy are increasingly important because the use of debt can provide financial leverage benefits, but can also increase risks if not managed optimally.

The 2015–2024 period was a dynamic period for PT Kereta Api Indonesia (Persero), particularly due to the COVID-19 pandemic, which resulted in decreased revenue and profits in 2020 and 2021 due to reduced public mobility and travel restrictions. The company's financial condition then began to recover from 2022 to 2024, making effective asset management and debt policies crucial to supporting financial recovery. Research data shows that TATO fluctuated from 0.622 times in 2015, reaching 0.689 times in 2018, then decreasing to 0.285 times in 2021 and increasing again to 0.431 times in 2023 before decreasing to 0.372 times in 2024. At the same time, DAR moved from 59.422% in 2015, reaching 67.973% in 2020, and was at 63.620% in 2024. ROA also experienced changes, from 6.238% in 2015 to negative at -3.263% in 2020 and -0.677% in 2021, then returning to positive in 2022–2024 although still below pre-pandemic conditions.

Based on these phenomena and problems, this study aims to analyze the effect of asset productivity on the financial performance of PT Kereta Api Indonesia (Persero) for the period 2015–2024, analyze the effect of debt policy on financial performance, and test the effect of asset productivity and debt policy simultaneously on the company's financial performance. Asset productivity is measured using Total Asset Turnover (TATO), debt policy is measured using the Debt to Asset Ratio (DAR), while financial performance is measured using Return on Assets (ROA). This study is important to provide an empirical picture of how the effectiveness of asset management and debt policy relates to the company's financial performance and provides input for PT Kereta Api Indonesia management and stakeholders in formulating optimal asset management strategies and funding structures. The novelty of the study lies in the simultaneous testing of both independent variables at PT Kereta Api Indonesia (Persero) with an observation period of 2015–2024, which covers conditions before, during, and after the COVID-19 pandemic, so that it is expected to provide more comprehensive empirical evidence regarding the relationship between asset productivity, debt policy, and the company's financial performance.

Research Methods

This study uses quantitative research with a causal approach to examine the causal relationship between asset productivity, debt policy, and financial performance at PT Kereta Api Indonesia (Persero). The quantitative approach was used because the research data are in the form of numbers derived from financial reports and analyzed statistically. According to Sugiyono (2020:16), quantitative research is used to examine a specific population or sample through statistical data collection and analysis to test hypotheses. Rahmi Pertiwi, Risnita, and Jailani (2023) explain that this approach is used to examine causal relationships and determine the contribution of independent variables to the dependent variable. Sugiyono (2021) explains that causal associative research distinguishes independent variables as causes and dependent variables as effects.

This study uses secondary data obtained from the annual report and financial statements of PT Kereta Api Indonesia (Persero) for the 2015–2024 period. This data is used to obtain the information needed to measure Asset Productivity, Debt Policy, and Financial Performance during the study period.

The research variables consist of Asset Productivity as the first independent variable proxied by Total Asset Turnover (TATO), Debt Policy as the second independent variable proxied by Debt to Asset Ratio (DAR), and Financial Performance as the dependent variable proxied by Return on Assets (ROA). TATO is used to measure the company's ability to use all assets to generate sales, DAR measures the proportion of assets financed by debt, while ROA measures the company's ability to generate net profit through the utilization of all assets.

The research population is the financial statements of PT Kereta Api Indonesia (Persero) for the period 2015–2024. According to Sugiyono (2020:80), a population is a generalized area consisting of objects or subjects with certain characteristics to be studied and conclusions drawn. The research sample consists of the profit and loss statements and financial position statements of PT Kereta Api Indonesia (Persero) for 2015–2024. This period was selected based on the availability of complete and consistent data and can describe the company's condition before, during, and after the COVID-19 pandemic,



resulting in 10 annual observations.

Data collection was conducted through documentation and internet research techniques. Documentation was conducted by collecting, recording, and reviewing secondary data in the form of the annual financial report of PT Kereta Api Indonesia (Persero) for the 2015–2024 period, while internet research was conducted to obtain financial reports that had been published on the official website of the Indonesia Stock Exchange.

The data analysis technique was carried out quantitatively with the help of SPSS 27. The analysis began with descriptive statistics, then continued with classical assumption tests which include normality, multicollinearity, heteroscedasticity, and autocorrelation tests. The normality test was carried out through histograms, Normal P-Plots, and One Sample Kolmogorov-Smirnov, while multicollinearity was seen from the Tolerance and VIF values. Furthermore, regression analysis, coefficient of determination, and partial and simultaneous hypothesis testing were carried out to determine the effect of independent variables on the dependent variable.

Results and Discussion

Calculation of Total Asset Turnover (TATO) Asset Productivity of PT Kereta Api Indonesia (Persero) 2015-2024

Table 1. Calculation of Asset Productivity (Total Asset Turnover) of PT Kereta Api Indonesia (Persero) for the 2015-2024 Period

Year	Sales (In Thousands of Rupiah)	Total Assets (In Thousands of Rupiah)	TATTOO (times)
2015	13,938,901,310	22,392,892,404	0.622
2016	14,463,328,404	25,133,216,120	0.575
2017	19,137,416,272	33,538,405,658	0.571
2018	26,864,014,499	38,995,759,409	0.689
2019	26,251,715,281	44,905,547,441	0.585
2020	18,074,850,763	53,207,069,002	0.340
2021	17,916,775,924	62,768,826,772	0.285
2022	25,577,639,010	71,581,229,723	0.357
2023	35,106,535,574	81,374,313,373	0.431
2024	36,108,216,958	97,099,125,872	0.372

Source: Financial Report of PT Kereta Api Indonesia (Persero) for the 2015-2024 Period

Based on Table 1, it can be seen that the total asset turnover ratio (TATO) of PT Kereta Api Indonesia (Persero) between 2015 and 2024 will fluctuate. In 2015, this TATO was around 0.622; in 2016 and 2017, it decreased to 0.575 and 0.571. In 2018, the TATO increased to 0.689, which is the highest of all time periods. In 2019 and 2020, the asset productivity (TATO) experienced a significant decline to 0.585 and 0.340. In 2021, this asset productivity (TATO) fell to 0.285, then rose to 0.357 in 2022 and 0.431 in 2023, before dropping to 0.372 in 2024.

Changes in the Total Asset Turnover (TATO) This shows that the company is consistently able to utilize its assets to work revenue from year to year. The increase in this ratio in 2018 indicates that the company is utilizing its resources with better to produce income. However, the decline that occurred in 2020 and 2021 shows that asset growth was not accompanied by an increase in sales. This condition is in line with the lack of operational activities of companies during the COVID-19 pandemic which resulted in a decrease in the number of passengers and revenue, meanwhile fixed company assets are improving.

Overall, the Asset Productivity (TATO) value of PT Kereta Api Indonesia (Persero) during the research period was in the range of 0.285–0.689 times, which means that every Rp.1.00 of assets owned by the company was able to generate sales between Rp.0.285 to Rp.0.689. In other words, the company's asset turnover rate is still relatively low because all assets owned have not been converted into sales optimally. This condition indicates that the effectiveness of asset management still needs to be improved so that the assets owned can provide a greater contribution to increasing the company's income in the following periods.



Calculation of Debt to Asset Ratio (DAR) Debt Policy of PT Kereta Api Indonesia (Persero) 2015-2024

Table 2. Debt Policy Calculation (Debt to Asset Ratio) PT Kereta Api Indonesia (Persero) Period 2015-2024

Year	Total Debt (In Thousands of Rupiah)	Total Assets (In Thousands of Rupiah)	DAR (%)
2015	13,306,312,618	22,392,892,404	59.422%
2016	15,420,143,242	25,133,216,120	61.350%
2017	20,438,591,787	33,538,405,658	60.941%
2018	20,695,703,682	38,995,759,409	53.072%
2019	25,099,922,978	44,905,547,441	55.895%
2020	36,167,089,500	53,207,069,002	67.973%
2021	39,118,737,129	62,768,826,772	62.322%
2022	42,501,045,418	71,581,229,723	59.374%
2023	50,468,176,132	81,374,313,373	62.017%
2024	61,774,463,399	97,099,125,872	63.620%

Source: Financial Report of PT Kereta Api Indonesia (Persero) for the 2015-2024 Period

Based on Table 2 illustrates how debt policy, as measured by the Debt to Asset Ratio (DAR), affects financial fluctuations. DAR increased from 59.422% in 2015 to 61.350% in 2016. The figure slightly decreased to 60.941% in 2017 and then to 53.072% in 2018, which was the lowest percentage ever in the period of the study. The Debt to Asset Ratio (DAR) rose to 55.895% in 2019 and then a sharp spike to 67.973% in 2020, which was the highest figure in the entire period of the study. After that, the ratio dropped to 59.374% in 2022 and 62.322% in 2021. DAR then returned to increases, reaching 62.017% in 2023 and 63.620% in 2024.

Changes in the Debt Assets (DAR) ratio indicate that the proportion of a company's assets financed by debt varies from year to year. The increase in the ratio in 2020 indicates that the company used a larger amount of debt-based funding compared to the previous period. This coincided with an increase in the company's total liabilities, while asset growth was not able to offset the proportional increase in debt. Conversely, the decrease in the ratio in 2018 and 2022 indicates that the company's funding structure has become relatively better due to a decrease in the proportion of debt to total assets.

Overall, PT Kereta Api Indonesia (Persero)'s Debt Policy Ratio (DAR) during the study period ranged from 53.072% to 67.973%. This indicates that more than half of the company's assets are financed by liabilities or debt. While debt can be utilized as a source of operational and investment financing, the relatively high Debt Policy Ratio (DAR) also reflects the company's heavy dependence on external funding. Therefore, the company needs to maintain a balance between debt use and its ability to generate productive assets to maintain financial health and manage financial risks.

Calculation of financial performance proxied by Return on Assets (ROA) of PT Kereta Api Indonesia (Persero) for 2015-2024

Table 3. Calculation of Return on Assets of PT Kereta Api Indonesia (Persero) for the 2015-2024 Period

Year	Net Profit (In Thousands of Rupiah)	Total Assets (In Thousands of Rupiah)	ROA (%)
2015	1,396,988,150	22,392,892,404	6.238%
2016	1,018,240,148	25,133,216,120	4.051%
2017	1,720,316,985	33,538,405,658	5.129%
2018	1,535,582,583	38,995,759,409	3.938%
2019	1,975,047,535	44,905,547,441	4.398%
2020	-1,736,237,692	53,207,069,002	-3.263%
2021	-425,195,643	62,768,826,772	-0.677%
2022	1,685,989,220	71,581,229,723	2.355%
2023	1,871,548,137	81,374,313,373	2.300%
2024	2,222,582,760	97,099,125,872	2.289%

Source: Financial Report of PT Kereta Api Indonesia (Persero) for the 2015-2024 Period

Based on table 3, The financial performance of PT Kereta Api Indonesia (Persero), as measured by Return on Assets (ROA), shows significant fluctuations between 2015 and 2024. Financial performance (ROA) fell to 4.051% in 2016 from 6.238% in 2015. The figure rose to 5.129% in 2017 before it fell to 3.938% in 2018. Financial performance (ROA) rose to 4.398% in 2019. ROA fell to -3.263% in 2020, the lowest figure recorded throughout the entire period of the study, then rose to -0.677% in 2021, 2.355% in 2022, 2.300% in 2023, and 2.289% in 2024.



and remained negative at -0.677% in 2021. With financial performance (ROA) reaching 2.355% in 2022, slightly decreasing to 2.300% in 2023, and returningli slightly decreased to 2.289% in 2024, the company's situation then mulai is getting better.

Fluctuations in the company's financial performance (ROA) value indicate that the company's ability to generate profits from all its assets has been unstable throughout the study period. The decline in 2020 and 2021 was caused by the company experiencing a net loss, resulting in a negative return on assets. This condition is related to the decline in operational activity due to the COVID-19 pandemic, which impacted passenger numbers and the company's revenue. After the economy began to recover, the company was able to return to profit, bringing the ROA value back to a positive level starting in 2022.

Seelama penelthis itian, the level of development!The return on assets (ROA) of PT Kereta Api Indonesia (Persero) varies between -3.263% to 6.238%.!This shows that the company's ability tolam memasilright!The return on its assets varies from year to year. The company's ability to generatelright!the aba of the assets is shown oleh positive Return on Assets (ROA), while negative ROA indicates that the assets arelum hashilright!laba at that time. Oleh because of that, increasing operational effectiveness!and optimallization of asset utilization is a key factor in increasing profitability!company's performance in the coming period.

Based on the calculations that have been done, it can be seen that the value of Asset Productivity (Total Asset Turnover), Debt Policy (Debt to Asset Ratio), and Financial Performance (Return On Asset) at PT. Kereta Api Indonesia (Persero) has increased and decreased every year. Therefore, the researcher made an analysis test to find out whether there are problems in the Financial Performance of PT. Kereta Api Indonesia (Persero), by using the results of the data calculations above, the researcher will conduct research using computer software, namely SPSS version 27.

1. Descriptive Statistical Analysis

Table 4. Descriptive Statistical Test

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Produktivitas Aset	10	285.000	689.000	482.70000	140.997281
Kebijakan Hutang	10	53072.000	67973.000	60598.60000	4093.789774
Kinerja Keuangan	10	-3263.000	6238.000	2675.80000	2829.647045
Valid N (listwise)	10				

Source: Data processed by the author using SPSS version 27

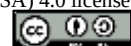
Based on the data in Table 4, the total number of data is 10, representing the sample size for the predetermined object, namely the period 2015-2024. The purpose of the descriptive statistical test is to determine the quality of the data being studied. If the mean value exceeds the standard deviation, the data quality is considered good. The following is a description of the test for each variable.

A. Asset Productivity proxied by Total Asset Turnover (TATO)

Asset Productivity (X1) measured by Total Asset Turnover (TATO) has 10 observations. The minimum value of 285,000 was recorded in 2021, while the maximum value of 689,000 was achieved in 2018. The company's average (mean) Asset Productivity is 482.70000 with a standard deviation of 140.997281. The condition where the mean value (482.70000) is greater than the standard deviation value (140.997281) indicates that the Asset Productivity data has a homogeneous distribution and data variation is not too high, reflecting relatively consistent asset utilization in generating income.

B. Debt Policy proxied by Debt to Asset Ratio (DAR)

Based on the results in table 4, Debt Policy (X2) measured through the Debt to Asset Ratio (DAR) has a total of 10 observation periods. The minimum value of 53072,000 was obtained in 2018



and the maximum value of 67973,000 was recorded in 2020. The average (mean) of Debt Policy is 60598.60000 with a standard deviation of 4093.789774. The relatively small standard deviation value when compared to the average value indicates the stability of the company's solvency structure, where the portion of asset funding of PT. Kereta Api Indonesia (Persero) is consistently in the range of 60% funded through liabilities.

C. Financial Performance is proxied by Return on Assets (ROA)

Based on the results in table 4, Financial Performance (Y) measured through Return on Assets (ROA) has a total of 10 observation periods. The minimum value of -3263,000 was experienced in 2020 due to disruptions in public transportation operational restrictions during the COVID-19 pandemic, while the maximum value of 6238,000 was achieved in 2015. The average (mean) of Financial Performance is at a positive level of 2675.80000 with a standard deviation of 2829.647045. Unlike the two independent variables, the standard deviation of the Financial Performance variable is greater than its average value. This reflects the high volatility of the company's profitability which experienced a sharp contraction in 2020–2021 before experiencing a recovery in net profit in the 2022–2024 period.

2. Classical Assumption Test

A. Normality Test

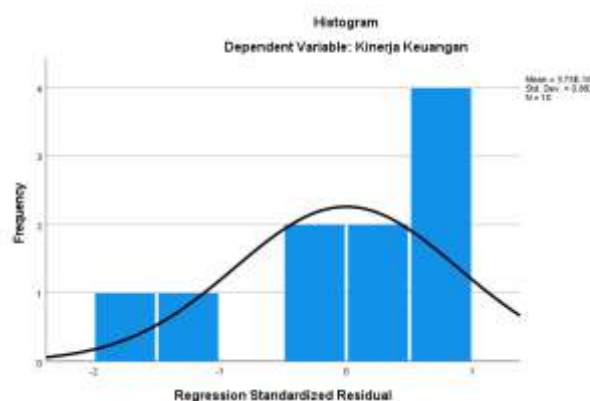


Table 5. Results of Normality Test Using Histogram Graph

Source: Data processed by the author using SPSS version 27

Based on Figure 1, the histogram graphIt can be seen that the distribution of the Regression Standardized Residuals generally follows a near-normal distribution pattern. The histogram shows that most of the residuals are concentrated in the center and still fall within the normal curve pattern. Although there is slight imbalance in the data distribution, no extreme deviations are observed. Thus, based on the histogram graph, the residuals in the regression model can be said to be distributed near-normally.

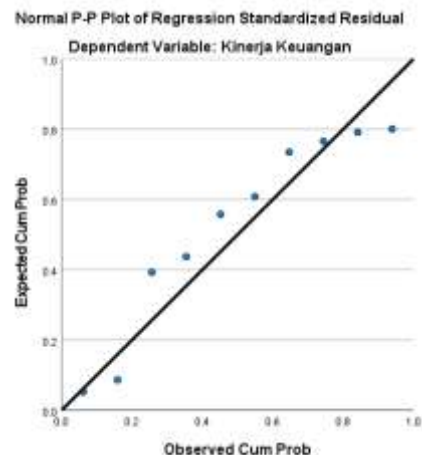


Figure 1. Results of Normality Test Using P-Plot Test

Source: Data processed by the author using SPSS version 27

Based on The results of the normality test using the Normal PP Plot of Regression Standardized Residual graph show that the residual points tend to follow and are located around the diagonal line. Although there are some points that deviate slightly from the diagonal line, these deviations are still within reasonable limits. This condition indicates that the residuals in the regression model have a distribution pattern close to normal. Thus, based on the PP Plot graph, the assumption of normality in the regression model can be declared met.

Table 6. Results of Normality Test Using the Kolmogorov-Smirnov Test
One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			10
Normal Parameters ^{a,b}	Mean		.0000000
	Std. Deviation		1630.801552
Most Extreme Differences	Absolute		.179
	Positive		.169
	Negative		-.179
Test Statistic			.179
Asymp. Sig. (2-tailed) ^c			.200 ^d
Monte Carlo Sig. (2-tailed) ^e	Sig.		.486
	99% Confidence Interval	Lower Bound	.474
		Upper Bound	.499

a. Test distribution is Normal.

b. Calculated from data.

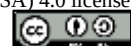
c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

Source: Data processed by the author using SPSS version 27

Based on the Table6 results of normality test using Kolmogorov-Smirnov testThe Kolmogorov-Smirnov Test Statistic value is 0.179 with an Asymptotic Significance value (2-tailed) of 0.200. In addition, the Monte Carlo Significance value is recorded at 0.486 (with a 99% confidence interval of 0.474 – 0.499). Because the calculated significance value (0.200) far exceeds the critical



limit of 0.05 ($p > 0.05$), the null hypothesis is accepted. It can be concluded that the residuals of the regression model meet the assumptions of a normal distribution.

B. Multicollinearity Test

Table 7. Multicollinearity Test Results

		Coefficients ^a					Collinearity Statistics	
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF
	B	Std. Error	Beta					
1	(Constant)	4958.004	15516.226		.320	.759		
	Produktivitas Aset	13.165	6.308	.656	2.087	.075	.480	2.082
	Kebijakan Hutang	-.143	.217	-.206	-.656	.533	.480	2.082

a. Dependent Variable: Kinerja Keuangan

Source: Data processed by the author using SPSS version 27

Based on Table 7, the Asset Productivity variable (X1) has a Tolerance value of 0.480 and a VIF value of 2.082. Similarly, the Debt Policy variable (X2) obtained a Tolerance value of 0.480 and a VIF of 2.082. Because the Tolerance value of both variables is greater than 0.10 ($0.480 > 0.10$) and the VIF value is far below 10 ($2.082 < 10.00$), it can be concluded that there are no symptoms of multicollinearity between the independent variables in this regression model.

C. Heteroscedasticity Test

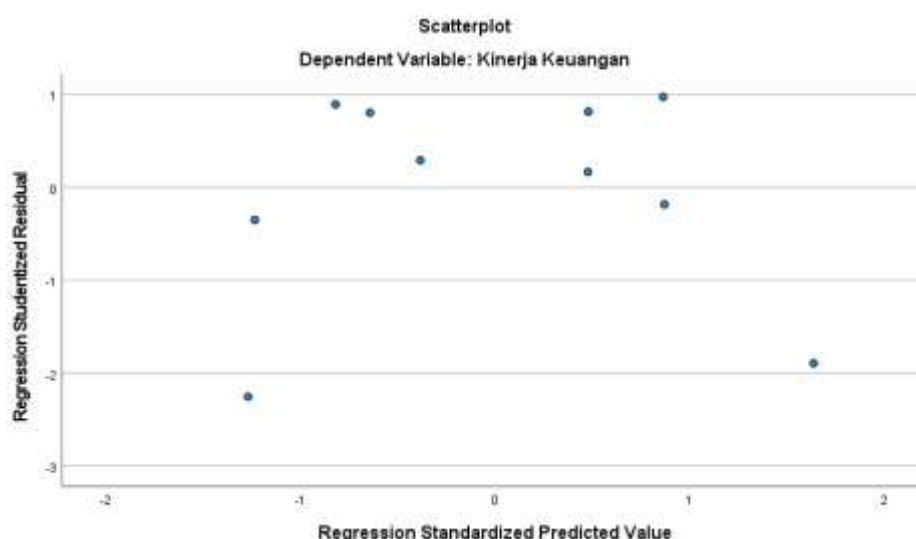


Figure 2. Heteroscedasticity Test Results

Source: Data processed by the author using SPSS version 27

Heteroscedasticity test resultsAs shown in Figure 2, the Standardized Residual Regression points are spread above and below the value of 0 on the vertical axis and do not form a specific systematic pattern. The distribution of points also does not show a tapering, widening, or wavy pattern. This condition indicates that there is no indication of a systematic change in residual variance at various levels of predicted values. Thus, it can be concluded that the regression model does not experience symptoms of heteroscedasticity or the assumption of homoscedasticity has been met. Therefore, the regression model can be used to continue the analysis of the effect of Asset Productivity proxied by Total Asset Turnover (TATO) and Debt Policy proxied by Debt to Asset Ratio (DAR) on Financial Performance.

D. Autocorrelation Test

Table 8. Autocorrelation Test Results

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.817 ^a	.668	.573	1849.155148	1.695

a. Predictors: (Constant), Kebijakan Hutang, Produktivitas Aset

b. Dependent Variable: Kinerja Keuangan

Source: Data processed by the author using SPSS version 27

Autocorrelation testlation using the Durbin-Watson (DW) method produces values with the number of samples $n = 10$, the number of independent variables $k = 2$, and the significance level $\alpha = 0.05$, the Durbin-Watson table produces $dL = 0.6972$ and $dU = 1.6413$. The value of $4 - dU$ is 2.3587. The regression results show the calculated Durbin-Watson value of 1.695. Based on the decision-making criteria, if $dU < DW < (4 - dU)$, then the model is in the area of no autocorrelation. Because $1.6413 < 1.695 < 2.3587$, it is decided that there is no positive or negative autocorrelation in the regression model.

3. Multiple Linear Regression Test

Multiple linear regression analysis is used to determine the magnitude of the influence of each independent variable on the dependent variable, which can be seen in the following table:

Table 9. Multiple Linear Regression Test Results

Coefficients^a

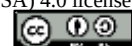
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4958.004	15516.226		.320	.759
	Produktivitas Aset	13.165	6.308	.656	2.087	.075
	Kebijakan Hutang	-.143	.217	-.206	-.656	.533

a. Dependent Variable: Kinerja Keuangan

Source: Data processed by the author using SPSS version 27

Based on the results of the regression calculations in table 9, The multiple linear regression equation obtained is: $Y = 4958.004 + 13.165 X_1 - 0.143 X_2$. From the results of the multiple regression equation, it can be analyzed with the following statement:

- Constant value(a) of 4,958,004 indicates that if Asset Productivity (X_1) and Debt Policy (X_2) are zero, then Financial Performance (Y) is estimated at 4,958,004 units.
- The Asset Productivity Coefficient (X_1) of 13.165 indicates a positive relationship with Financial Performance (Y). Every one unit increase in Asset Productivity will increase Financial Performance by 13.165 units, assuming a constant Debt Policy.
- The Debt Policy coefficient (X_2) of -0.143 indicates a negative relationship with Financial Performance (Y). Every one-unit increase in Debt Policy will decrease Financial Performance by 0.143 units, assuming fixed Asset Productivity.



4. Test the Coefficient of Determination (R²)

Table 10. Results of the Coefficient of Determination (R²)

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.817 ^a	.668	.573	1849.155148	1.695

a. Predictors: (Constant), Kebijakan Hutang, Produktivitas Aset

b. Dependent Variable: Kinerja Keuangan

Source: Data processed by the author using SPSS version 27

Based on the data in Table 10, a multiple correlation (R) value of 0.817 was obtained, indicating that Asset Productivity (TATO) and Debt Policy (DAR) have a very strong relationship with Financial Performance (ROA). The R Square value of 0.668 indicates that the two independent variables are able to explain 66.8% of the variation in Financial Performance, while the remaining 33.2% is explained by other factors outside the research model.

5. Hypothesis Testing

1. Partial t-test

Table 11. Partial Test Results (t-Test)

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4958.004	15516.226		.320	.759
	Produktivitas Aset	13.165	6.308	.656	2.087	.075
	Kebijakan Hutang	-.143	.217	-.206	-.656	.533

a. Dependent Variable: Kinerja Keuangan

Source: Data processed by the author using SPSS version 27

Based on the results obtained as in table 11, it was run partially to test the impact of each independent variable, and to find $t_{table} = (df = nk - 1)$ with $n = 10$ and $k = 2 - 1 = 7$ and obtained t_{table} of 2.365 and a significance level of 0.05 so that it can be explained as follows:

1. The Influence of Asset Productivity proxied by Total Asset Turnover on Financial Performance proxied by Return on Assets

Based on the data in table 11, the partial test results show a calculated t value of $2.087 < t_{table}$ 2.365 and a significance value of $0.075 > 0.05$. Thus, Asset Productivity does not have a significant effect on Financial Performance at the 5% significance level. The regression coefficient of 13.165 indicates a positive relationship. However, at the 10% significance level, the effect is significant because $0.075 < 0.10$. Therefore, H1 is not proven at the 5% significance level.

2. The Influence of Debt Policy as proxied by Debt to Asset Ratio on Financial Performance as proxied by Return on Assets

Based on the data in table 11, the partial test results show a calculated t value of -0.656 with an absolute value of $0.656 < t_{table}$ 2.365 and a significance value of $0.533 > 0.05$. Thus, Debt Policy does not have a significant effect on Financial Performance. The regression coefficient of -0.143 indicates a negative relationship, so that an increase in Debt Policy tends to be followed by a decrease in Financial Performance. Therefore, H2 is rejected.



2. F test (simultaneous)

Table 12. Simultaneous Test Results (F Test)

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48126498.27	2	24063249.14	7.037	.021 ^b
	Residual	23935623.33	7	3419374.761		
	Total	72062121.60	9			

a. Dependent Variable: Kinerja Keuangan

b. Predictors: (Constant), Kebijakan Hutang, Produktivitas Aset

Source: Data processed by the author using SPSS version 27

Based on the data in table 12, it is confirmed that The results of the simultaneous test (F test) show that the calculated F value is 7.037 with a significance level of 0.021. At a significance level of 5% with degrees of freedom (df1) of 2 and (df2) of 7, the F table value is 4.74. The test results show that the calculated F value is greater than the F table, namely $7.037 > 4.74$, and the significance value of 0.021 is smaller than 0.05. Thus, H_0 is rejected and H_a is accepted. Which shows that Asset Productivity (TATO) and Debt Policy (DAR) simultaneously have a significant effect on Financial Performance (ROA) at PT Kereta Api Indonesia (Persero) for the period 2015–2024. Although partially both variables do not have a significant effect at the 5% level, together they are proven to have a significant effect on Financial Performance.

Research Discussion

The Effect of Asset Productivity on Financial Performance. The results of the study indicate that TATO has no significant partial effect on ROA. This is consistent with the characteristics of PT Kereta Api Indonesia (Persero) as a capital-intensive company with a large proportion of fixed assets, where increasing asset turnover requires a longer time to have a significant impact on profitability due to high depreciation and infrastructure maintenance expenses. These results align with research by Abillah Salam and Nugroho (2024) and Raapi and Rovita (2025), which found that TATO has no significant effect on ROA.

The Effect of Debt Policy on Financial Performance. The Debt-to-Debt (DAR) ratio does not have a significant partial effect on ROA, although the relationship is negative. This indicates that PT Kereta Api Indonesia (Persero)'s debt use, which is largely allocated for long-term strategic infrastructure investments, has been managed with a relatively controlled level of risk and interest expense, so that fluctuations in the DAR ratio do not drastically alter short-term profitability. This result is consistent with Maysaputra and Amirudin (2025) and Adji Widodo (2018), which show that DAR has no significant effect on ROA.

The Simultaneous Effect of Asset Productivity and Debt Policy on Financial Performance. Although both variables are partially insignificant, the simultaneous test results indicate that the combination of asset productivity management and funding policy is a significant factor influencing financial performance. This finding aligns with research by Abillah Salam and Nugroho (2024), Maysaputra and Amirudin (2025), and Adji Widodo (2018), which shows that variables related to asset productivity and funding structure simultaneously influence ROA. The R Square value of 66.8% indicates that the model combining operational efficiency (TATO) and funding structure (DAR) has a fairly high explanatory power on ROA.

Conclusion

Based on the results of the analysis, it was concluded that: (1) Asset Productivity which is proxied by Total Asset Turnover (TATO) does not have a significant partial effect on Financial Performance which is proxied by Return on Assets (ROA); (2) Debt Policy which is proxied by the Debt to Asset Ratio (DAR) does not have a significant partial effect on Financial Performance which is proxied



by *Return on Assets* (ROA); and (3) Asset Productivity and Debt Policy simultaneously have a significant effect on Financial Performance which is proxied by *Return on Assets* (ROA), with a contribution of 66.8% (R Square = 0.668) and a correlation coefficient (R) of 0.817 indicating a very strong relationship. The company is advised to continue to improve the efficiency of asset management and maintain an optimal, integrated funding structure to support sustainable financial performance improvement. Further research is recommended to add other independent variables, expand the research object to similar state-owned transportation companies, and extend the observation period to obtain more comprehensive results.

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