



The Effect of Asset Utilization Efficiency and Debt Structure on Profitability in Infrastructure Companies Listed on the Indonesia Stock Exchange for the 2019-2025 Period

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Article History:

Received : 26-08-2026

Revised : 11-09-2026

Accepted : 16-09-2026

Keywords: *Debt to Asset Ratio, Infrastructure Companies, Profitability, Return on Assets, Total Asset Turnover*

Abstract: *This research aims to analyze the effect of Total Asset Turnover and Debt to Asset Ratio on Return on Assets in infrastructure companies listed on the Indonesia Stock Exchange for the 2019–2025 period. This study uses a causal associative quantitative approach with secondary data from annual financial reports. The population consists of 29 companies, with 6 companies selected through purposive sampling. Data were analyzed using EViews 12 through panel data regression, classical assumption tests, t-tests, F-tests, and coefficient of determination. The results show that Total Asset Turnover has no significant effect on Return on Assets ($t = 0.026588$; $p = 0.9789$), while Debt to Asset Ratio has a significant effect on Return on Assets ($t = 14.79333$; $p = 0.0000$). Simultaneously, Total Asset Turnover and Debt to Asset Ratio have a significant effect on Return on Assets ($F = 105.7494$; $p = 0.0000$). The coefficient of determination (R^2) indicates the proportion of variation in Return on Assets explained by the independent variables.*

How to Cite: Andika Salsabila Putri Ferdiansyah, Karolina. (2026). *The Effect of Asset Utilization Efficiency and Debt Structure on Profitability in Infrastructure Companies Listed on the Indonesia Stock Exchange for the Period 2019-2025*. 4(2). pp.760-771. <https://doi.org/10.61536/escalate.v4i02.783>



<https://doi.org/10.61536/escalate.v4i02.783>

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Introduction

The infrastructure sector is one of the backbones of the Indonesian economy, playing a key role in providing basic infrastructure and absorbing labor. According to Statistics Indonesia (BPS) data, the infrastructure sector was among the five sectors that contributed the most to national economic growth in the fourth quarter of 2024, contributing 10.43 percent. This demonstrates the importance of the financial performance of infrastructure companies listed on the Indonesia Stock Exchange.

Entering 2024 and 2025, infrastructure companies face pressures from government budget efficiency, increasingly fierce project competition, and rising construction costs. Budget efficiency measures, enacted through Presidential Instruction No. 1 of 2025, have resulted in budget cuts for the Ministry of Public Works and the postponement or cancellation of several projects. Furthermore, a 10 to 30 percent increase in construction material prices has also put pressure on companies.

A decrease in project volume can result in a company's productive assets being underutilized, potentially reducing Total Asset Turnover. Data from infrastructure companies from 2019 to 2025 shows that Total Asset Turnover at ACST, IDPR, JKON, NRCA, PBSA, and TOTL exhibited different and fluctuating patterns. This indicates differences in the efficiency of companies in utilizing assets to generate sales.



On the other hand, funding constraints and cash flow delays can push companies to increase their use of debt to maintain operations and meet working capital needs. This condition is reflected in the Debt-to-Asset Ratio, which indicates differences in funding structures between companies. Data from 2019 to 2025 shows that some companies experienced an increase in debt use, while others showed a decrease or remained relatively stable.

Changes in asset efficiency and debt structure have the potential to impact profitability, as measured by Return on Assets. Data from 2019 to 2025 shows that Return on Assets (ROA) in infrastructure companies fluctuates, with varying conditions across companies. This discrepancy between theory and empirical phenomena is also evident in research by Rahayu Nur Hidayah & Faisal (2025), who found that Debt to Asset Ratio (DAR) had no significant partial effect on ROA, while Total Asset Turnover (TA) significantly impacted ROA.

Based on these conditions, this study aims to examine the effect of asset utilization efficiency and debt structure on profitability, both partially and simultaneously, in infrastructure companies listed on the Indonesia Stock Exchange for the period 2019 to 2025. This study is important to provide information on the relationship between these three aspects in the infrastructure sector conditions that face various pressures. The novelty of the study lies in testing the efficiency of asset utilization and debt structure on profitability in infrastructure companies during the period 2019 to 2025 by considering the phenomenon of changes in Total Asset Turnover, Debt to Asset Ratio, and Return on Assets.

Method

This study uses a quantitative method with a causal associative approach to determine the effect of Asset Utilization Efficiency as measured by Total Asset Turnover and Debt Structure as measured by Debt to Asset Ratio on Profitability as measured by Return on Assets in infrastructure sector companies in the construction services sector listed on the Indonesia Stock Exchange for the period 2019 to 2025. According to Sugiyono (2023), quantitative research is a method used to examine a specific population or sample by collecting and analyzing data quantitatively or statistically to test hypotheses. The research data is in the form of secondary data obtained from the company's annual financial reports through the Indonesia Stock Exchange and the company's official website, with the research being conducted from November 2025 to July 2026.

The research instrument consisted of annual financial reports, specifically the statement of financial position and income statement, which were used to calculate Total Asset Turnover, Debt to Asset Ratio, and Return on Assets (Kasmir, 2021). Data collection was conducted through observation, documentation, and internet research. The data were then analyzed using EViews 12 with panel data regression because it combines cross-sectional and time series data. The analysis included model selection through the Chow Test, Hausman Test, and Lagrange Multiplier Test, followed by tests for normality, multicollinearity, heteroscedasticity, autocorrelation, panel data regression, t-test, F-test, and coefficient of determination (R^2) as described by Ghazali (2021).

The research population consisted of 29 infrastructure sector companies engaged in construction services and listed on the Indonesia Stock Exchange during the period 2019 to 2025. The sample was determined using a purposive sampling technique based on the criteria of companies that had been listed before the research period, published financial reports consecutively from 2019 to 2025, provided the necessary data, had complete and accessible financial reports, and had been audited by an independent auditor. Based on these criteria, 6 companies were obtained with 42 observations, namely PT Acset Indonusa Tbk (ACST), PT Indonesia Pondasi Raya Tbk (IDPR), PT Jaya Konstruksi Manggala Pratama Tbk (JKON), PT Nusa Raya Cipta Tbk (NRCA), PT Paramita Bangun Sarana Tbk (PBSA), and PT Total Bangun Persada Tbk (TOTL). According to Sugiyono (2023), a sample is a part of a population that has certain characteristics according to research needs.

The research procedure was carried out through several stages, namely preparation, data collection, data processing, analysis, and conclusion drawing. The preparation stage includes topic determination, literature review, proposal preparation, problem identification, and variable determination. Next, the financial statements of sample companies for the period 2019 to 2025 were

collected and selected based on sample criteria, then processed to obtain the values of Total Asset Turnover, Debt to Asset Ratio, and Return on Assets. The data were then analyzed using EViews 12 through panel data regression and hypothesis testing. The results of the analysis were used to determine the effect of Asset Utilization Efficiency and Debt Structure on Profitability, then became the basis for compiling research conclusions and suggestions.

Research results

**Table 1 Total Asset Turnover Data for Infrastructure Companies
Period 2019-2025 (In Millions and Thousands of Rupiah)**

<i>Total Asset Turnover</i>					
No	Company Code	Year	Net sales	Total Assets	Results (Time)
1	ACST (Millions of Rupiah)	2019	3,947,173	10,446,519	0.38
		2020	1,204,429	3,055,106	0.39
		2021	1,494,671	2,478,713	0.60
		2022	1,036,870	2,111,024	0.49
		2023	2,349,638	2,608,782	0.90
		2024	3,172,312	2,812,732	1.13
		2025	2,370,355	2,985,134	0.79
2	IDPR (Full Rupiah)	2019	958,462,201,850	1,985,002,918,764	0.48
		2020	652,350,844,406	1,508,823,148,421	0.43
		2021	872,574,156,089	1,497,705,774,236	0.58
		2022	1,060,124,902,677	1,542,492,102,329	0.69
		2023	1,289,582,924,477	1,678,832,977,395	0.77
		2024	1,115,261,513,273	1,495,862,407,765	0.75
		2025	1,221,164,136,092	1,684,461,925,573	0.72
3	JKON (Thousands of Rupiah)	2019	5,470,824,200	4,928,108,872	1.11
		2020	3,013,778,917	4,565,315,258	0.66
		2021	3,480,062,858	4,145,213,922	0.84
		2022	4,465,174,493	4,307,485,666	1.04
		2023	4,548,754,696	4,396,310,133	1.03
		2024	3,875,321,246	4,371,497,764	0.89
		2025	3,853,980,726	4,497,533,290	0.86
4	NRCA (Full Rupiah)	2019	2,617,754,376,513	2,462,813,011,754	1.06
		2020	2,085,740,129,302	2,221,459,173,567	0.94
		2021	1,669,713,392,168	2,142,945,408,364	0.78
		2022	2,462,407,757,122	2,454,852,311,196	1.00
		2023	2,895,507,275,859	2,336,265,865,936	1.24
		2024	3,372,465,083,657	2,373,118,335,025	1.42
		2025	3,612,212,037,385	2,909,741,471,985	1.24
5	PBSA (Full Rupiah)	2019	607,764,419,249	722,903,663,896	0.84
		2020	552,602,370,724	702,230,572,680	0.79
		2021	279,155,322,925	776,987,707,840	0.36
		2022	731,846,535,897	857,819,112,060	0.85
		2023	572,763,446,107	795,622,503,779	0.72
		2024	1,154,289,864,419	1,117,111,786,295	1.03
		2025	1,591,238,558,757	1,421,978,769,398	1.12
6	TOTAL (Full Thousands)	2019	2,474,974,774	2,962,993,701	0.84
		2020	2,292,693,925	2,889,059,738	0.79
		2021	1,745,129,628	2,727,306,841	0.64
		2022	2,276,815,788	2,990,427,306	0.76
		2023	3,027,183,068	3,132,571,723	0.97
		2024	3,087,653,570	3,495,248,379	0.88



Total Asset Turnover					
No	Company Code	Year	Net sales	Total Assets	Results (Time)
		2025	3,901,466,300	4,043,515,360	0.96

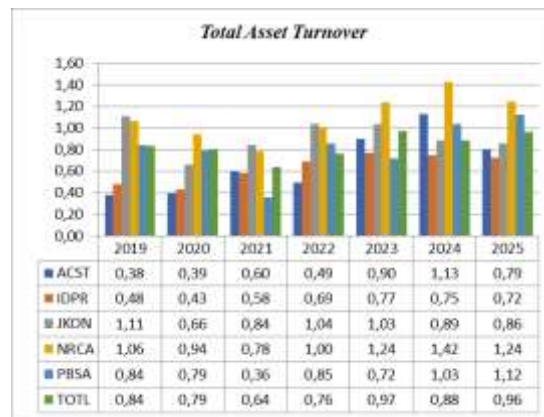


Figure 1 Total Asset Turnover Data Graph

Based on Table 4.1, the Total Asset Turnover of the sample companies fluctuated between 2019 and 2025, indicating changes in the effectiveness of asset utilization to generate sales. PT Nusa Raya Cipta Tbk had the highest ratio in 2025, at 1.24 times. In general, an increase in Total Asset Turnover reflects increasingly efficient asset utilization and the potential to increase profits, while a decrease in the ratio indicates suboptimal asset utilization.

Table 2 Data on Debt to Asset Ratio of Publicly-Owned Infrastructure Companies Period 2019-2025 (In Millions and Thousands of Rupiah)

Debt to Asset Ratio					
No	Company Code	Year	Total Debt	Total Assets	Results (%)
1	ACST (Millions of Rupiah)	2019	10,160,043	10,446,519	97.26
		2020	2,731,074	3,055,106	89.39
		2021	1,362,982	2,478,713	54.99
		2022	1,440,027	2,111,024	68.21
		2023	2,212,725	2,608,782	84.82
		2024	2,953,727	2,812,734	105.01
		2025	3,315,459	2,985,135	111.07
2	IDPR (Full Rupiah)	2019	780,919,773,607	1,985,002,918,764	39.34
		2020	741,212,593,871	1,508,823,148,421	49.13
		2021	865,435,728,036	1,497,705,774,236	57.78
		2022	911,736,880,381	1,542,492,102,329	59.11
		2023	1,018,199,988,400	1,678,832,977,395	60.65
		2024	816,694,474,501	1,495,862,407,765	54.60
		2025	989,528,153,910	1,684,461,925,573	58.74
3	JKON (Thousands of Rupiah)	2019	2,230,341,912	4,928,108,872	45.26
		2020	1,882,247,833	4,565,315,258	41.23
		2021	1,494,665,730	4,145,213,922	36.06
		2022	1,445,453,420	4,307,485,666	33.06
		2023	1,341,697,603	4,396,310,133	30.52
		2024	1,194,860,487	4,371,497,764	27.33
		2025	1,255,537,360	4,497,533,290	27.92
4	NRCA (Full Rupiah)	2019	1,241,648,295,607	2,462,813,011,754	50.42
		2020	1,068,303,801,217	2,221,459,173,567	48.09
		2021	975,856,372,145	2,142,945,408,364	45.54
		2022	1,251,141,710,774	2,454,852,311,196	50.97
		2023	1,138,018,030,997	2,336,265,865,936	48.71
		2024	1,168,762,362,416	2,373,118,335,025	49.25
		2025	1,538,161,840,341	2,909,741,471,985	52.95

<i>Debt to Asset Ratio</i>					
No	Company Code	Year	Total Debt	Total Assets	Results (%)
5	PBSA (Full Rupiah)	2019	185,055,593,387	722,903,663,896	25.60
		2020	166,214,951,770	702,230,572,680	23.67
		2021	195,989,012,014	776,987,707,840	25.22
		2022	212,406,611,910	857,819,112,060	24.76
		2023	198,463,552,902	795,622,503,779	24.94
		2024	341,623,889,784	1,117,111,786,295	30.58
		2025	492,746,152,143	1,421,978,769,398	34.65
6	TOTAL (Full Thousands)	2019	1,886,089,201	2,962,993,701	63.65
		2020	1,749,895,710	2,889,059,738	60.57
		2021	1,495,422,466	2,727,306,841	54.83
		2022	1,750,251,774	2,990,427,306	58.53
		2023	2,065,505,363	3,132,571,723	65.94
		2024	2,307,888,171	3,495,248,379	66.03
		2025	2,713,536,965	4,043,515,360	67.11

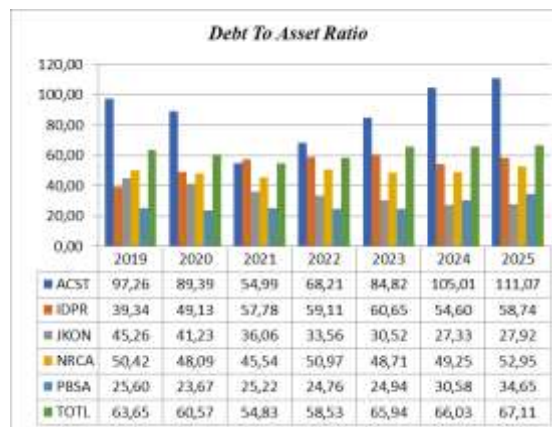


Figure 2 Debt to Asset Ratio Data Graph

Based on Table 2, the sample companies' debt-to-asset ratios fluctuated between 2019 and 2025. Generally, an increase in the ratio indicates a company's increasing reliance on debt and increased financial risk, while a decrease indicates a healthier funding structure.

Profitability Calculation

Table 3 Data on Return on Assets of Infrastructure Companies
Period 2019-2025 (In Millions and Thousands of Rupiah)

<i>Return on Assets</i>					
No	Company Code	Year	Net profit	Total Assets	Results (%)
1	ACST (Millions of Rupiah)	2019	1,131,849	10,446,519	10.83
		2020	1,340,079	3,055,106	43.86
		2021	693,366	2,478,713	27.97
		2022	451,613	2,111,024	21.39
		2023	276,638	2,608,782	10.60
		2024	542,065	2,812,732	19.27
		2025	687,180	2,985,134	23.02
2	IDPR (Full Rupiah)	2019	3,509,738,431	1,985,002,918,764	0.18
		2020	382,162,811,564	1,508,823,148,421	25.33
		2021	144,075,330,432	1,497,705,774,236	9.62
		2022	1,290,895,099	1,542,492,102,329	0.08
		2023	33,177,813,391	1,678,832,977,395	1.98
		2024	24,947,523,535	1,495,862,407,765	1.67
		2025	26,380,159,400	1,684,461,925,573	1.57
3	JKON (Thousands of Rupiah)	2019	202,283,267	4,928,108,872	4.10
		2020	51,834,425	4,565,315,258	1.14
		2021	37,110,098	4,145,213,922	0.90
		2022	201,656,509	4,307,485,666	4.68
		2023	241,814,791	4,396,310,133	5.50
		2024	189,090,101	4,371,497,764	4.33
		2025	113,529,861	4,497,533,290	2.52
4	NRCA	2019	101,155,011,546	2,462,813,011,754	4.11

Return on Assets					
No	Company Code	Year	Net profit	Total Assets	Results (%)
5	(Full Rupiah)	2020	55,122,851,471	2,221,459,173,567	2.48
		2021	51,648,101,245	2,142,945,408,364	2.41
		2022	74,670,162,517	2,454,852,311,196	3.04
		2023	99,508,842,135	2,336,265,865,936	4.26
		2024	81,602,166,883	2,373,118,335,025	3.44
		2025	175,524,357,593	2,909,741,471,985	6.04
	PBSA (Full Rupiah)	2019	13,287,142,235	722,903,663,896	1.84
		2020	43,151,541,644	702,230,672,680	6.14
		2021	83,315,829,281	776,987,707,840	10.72
		2022	133,988,085,819	857,819,112,060	15.62
		2023	192,742,530,687	795,622,503,779	24.23
		2024	215,043,213,488	1,117,111,786,295	19.25
6	TOTAL (Full Thousands)	2025	320,081,304,703	1,421,978,769,398	22.51
		2019	175,502,010	2,962,993,701	5.92
		2020	108,580,758	2,889,059,738	3.76
		2021	101,633,430	2,727,306,841	3.73
		2022	91,646,670	2,990,427,306	3.06
		2023	172,704,944	3,132,571,723	5.51
		2024	266,505,876	3,495,248,379	7.60
		2025	414,518,484	4,043,515,360	10.25



Figure 3 Graph of Return on Asset Data for Infrastructure Companies

Based on the graph, the Return on Assets of the sample companies fluctuated between 2019 and 2025. PT Acset Indonusa Tbk had the highest ROA, while PT Jaya Konstruksi Manggala Pratama Tbk tended to be low and stable. Overall, changes in ROA indicate that the companies' ability to utilize assets to generate profits is not yet fully stable. Influencing factors include changes in profits, assets, economic conditions, and asset management efficiency.

Table 4 Descriptive Statistics

	Y	X1	X2
Mean	0.092029	0.816229	0.404931
Median	0.050800	0.814700	0.468150
Maximum	0.438800	1.421100	0.972800
Minimum	0.000800	0.359300	0.000500
Std. Dev.	0.096427	0.243092	0.224700
Skewness	1.597175	0.115411	-0.265171
Kurtosis	5.339833	2.832229	2.872040
Jarque-Bera	27.43770	0.142495	0.520863
Probability	0.000001	0.931231	0.770719
Sum	3.865200	34.28180	17.00710
Sum Sq. Dev.	0.381225	2.422835	2.070094
Observations	42	42	42

Based on descriptive statistics, there are 29 observations from six infrastructure companies for the 2019–2025 period. Profitability (ROA) has an average of 0.0920 with a fairly high variation and is not normally distributed based on the Jarque-Bera test. Meanwhile, Total Asset Turnover has an average of 0.8162 and Debt to Asset Ratio of 0.4049, both of which are normally distributed. In general, the data shows inter-company variation in each research variable.

Panel Data Estimation Model

Table 5 Chow Test Results

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.174240	(5,34)	0.3293
Cross-section Chi-square	6.683326	5	0.2312

From the output results above in the “Cross-section F” row in the probability column, it can be seen that the value is 0.3293, so in this case the probability value is $0.3293 > 0.05$, which means that H_0 is accepted and H_a is rejected, which means that the Common Effect Model is more appropriate to use in this study.

Table 6 Hausman Test Results

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.805996	2	0.4054

The table shows that the F probability is 0.4054, which means that the F probability value is less than the significance value used, namely 0.05. The F probability value is $0.4054 > 0.05$, so H_0 is rejected and H_a is accepted, which means that the Random Effect model is more appropriate to use in this study.

Table 7 Lagrange Multiplier Test Results

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

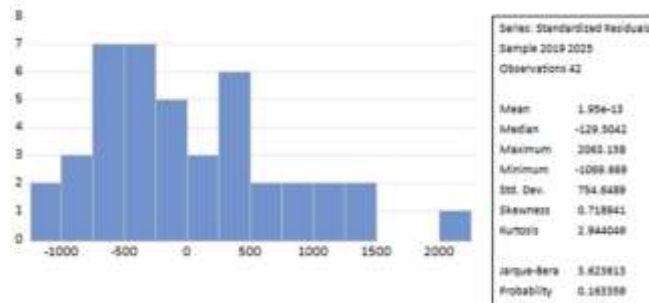
	Cross-section	Time	Both
Breusch-Pagan	2.530149 (0.1117)	0.951426 (0.3294)	3.481575 (0.0621)
Honda	1.590644 (0.0558)	-0.975410 (0.8353)	0.435036 (0.3318)
King-Wu	1.590644 (0.0558)	-0.975410 (0.8353)	0.517147 (0.3025)
Standardized Honda	2.558892 (0.0053)	-0.741919 (0.7709)	-2.139150 (0.0838)
Standardized King-Wu	2.558892 (0.0053)	-0.741919 (0.7709)	-2.032270 (0.9789)
Gourieroux, et al.	—	—	2.530149 (0.1264)

Based on the results of the table above, it can be seen from the Cross-Section probability value, which is 0.1117, which is greater than 0.05. Therefore, H_0 is accepted and H_a is rejected, so the appropriate model is the Common Effect.

Table 8 Conclusions of Panel Data Regression Model Testing

No	Method	Testing	Results
1	Chow Test	Common Effect vs Fixed Effect	Common Effect
2	Hausman test	Random Effect vs Fixed Effect	Random Effect
3	Lagrange Multiplier Test	Common Effect vs Random Effect	Common Effect

Classical Assumption Test Results



Picture1 Normality Test Results

The image above shows a probability value of $0.163359 > 0.05$, indicating that this research model is normally distributed. Since the profitability value is greater than the 0.05 significance level, it can be concluded that the residuals from the regression model are normally distributed.

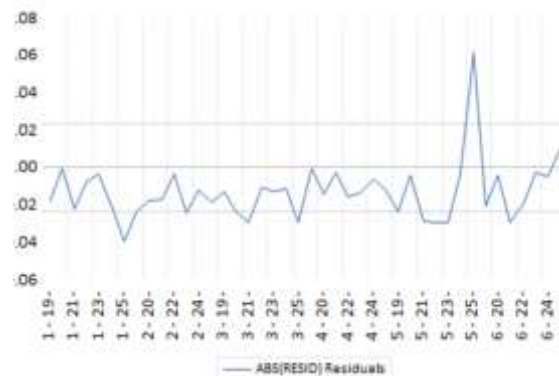
Table 9 Multicollinearity Test Results

	X1	X2
X1	1.000000	0.024444
X2	0.024444	1.000000

Based on the results in the table above, it can be seen that the correlation value between independent variables is $0.02444 < 0.85$, which means that H_a is accepted and H_o is rejected.

Table 10 Heteroscedasticity Test Results

Dependent Variable: ABS(RESID)				
Method: Panel Least Squares				
Date: 07/03/26 Time: 01:44				
Sample: 2019 2025				
Periods included: 7				
Cross-sections included: 6				
Total panel (balanced) observations: 42				
White cross-section (period cluster) standard errors & covariance (d.f. corrected)				
Standard error and t-statistic probabilities adjusted for clustering				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.062818	0.021032	2.986782	0.0244
X1	-0.028987	0.021064	-1.376170	0.2179
X2	-0.023510	0.015205	-1.546189	0.1730



Graph 5 Heteroscedasticity Test Results

Based on the graph above, the test results show that several independent variables have a significance of $X1$ of $0.2179 > 0.05$ and $X2$ of $0.1730 > 0.05$. Therefore, the null hypothesis is accepted.

Table 11 Results of Autocorrelation Test Transformation

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.505800	0.086581	-40.49140	0.0000
LOG(X1)	-0.002409	0.094711	-0.025438	0.9798
LOG(X2)	-0.293759	0.019984	-14.69262	0.0000
Weighted Statistics				
R-squared	0.842344	Mean dependent var	-2.657918	
Adjusted R-squared	0.834259	S.D. dependent var	12.89118	
S.E. of regression	1.032951	Sum squared resid	41.61256	
F-statistic	104.1869	Durbin-Watson stat	1.771734	
Prob(F-statistic)	0.000000			

After the transformation, the autocorrelation test was carried out again on the independent and dependent variables using the Log and Cross-section SUR methods and the Durbin Watson-stat results obtained were $1.771734 > 1.4073$ DL (Lower Bound).

Panel Data Regression Analysis

Table 12 Panel Data Regression Results Using the Fixed Effect Model (FEM)

Redundant Fixed Effects Tests				
Equation: Unfiled				
Test cross-section fixed effects				
Effects Test	Statistic	df	Prob.	
Cross-section F	3.078248	(5,34)	0.0213	
Cross-section Chi-square	15.663326	5	0.0076	
Cross-section fixed effects test equation:				
Dependent Variable: Y				
Method: Panel Least Squares				
Date: 07/04/26 Time: 08:24				
Sample: 2019 2025				
Periods included: 7				
Cross-sections included: 6				
Total panel (balanced) observations: 42				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.272705	0.047129	5.786384	0.0000
X1	-0.101989	0.049725	-2.051067	0.0470
X2	-0.240609	0.053795	-4.472728	0.0001
R-squared	0.387519	Mean dependent var	0.092029	
Adjusted R-squared	0.356109	S.D. dependent var	0.096427	
S.E. of regression	0.077376	Akaike info criterion	-2.211539	
Sum squared resid	0.233493	Schwarz criterion	-2.087420	
Log likelihood	49.44232	Hannan-Quinn criter.	-2.166044	
F-statistic	12.33771	Durbin-Watson stat	0.832394	
Prob(F-statistic)	0.000071			

Table 13 Panel Data Regression Results Using the Random Effect Model (REM)

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	1.805996	2	0.4054

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
X1	-0.049275	-0.073568	0.000551	0.3007
X2	-0.137654	-0.187727	0.001563	0.2053

Table 14 Panel Data Regression Results Using the Common Effect Model (CEM)

Dependent Variable: Y
Method: Panel Least Squares
Date: 07/04/25 Time: 08:36
Sample: 2019 2025
Periods included: 7
Cross-sections included: 6
Total panel (balanced) observations: 42

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.272705	0.047129	5.786384	0.0000
X1	-0.101989	0.049725	-2.051067	0.0470
X2	-0.240609	0.053795	-4.472728	0.0001

R-squared 0.387519 Mean dependent var 0.092029
Adjusted R-squared 0.356109 S.D. dependent var 0.096427
S.E. of regression 0.077376 Akaike info criterion -2.211539
Sum squared resid 0.233493 Schwarz criterion -2.087420
Log likelihood 49.44232 Hannan-Quinn criter. -2.166044
F-statistic 12.33771 Durbin-Watson stat 0.832394
Prob(F-statistic) 0.000071

Hypothesis Testing

Table 15 Results of the Common Effect Model (CEM) Regression Analysis

Dependent Variable: LOG(Y)
Method: Panel EGLS (Cross-section SUR)
Date: 07/11/26 Time: 08:08
Sample: 2019 2025
Periods included: 7
Cross-sections included: 6
Total panel (balanced) observations: 42
Linear estimation after one-step weighting matrix

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.506024	0.086207	-40.68970	0.0000
LOG(X1)	-0.002501	0.094062	-0.026588	0.9789
LOG(X2)	-0.293787	0.019858	-14.79333	0.0000

Weighted Statistics

R-squared	0.844311	Mean dependent var	-2.623820
Adjusted R-squared	0.836327	S.D. dependent var	13.00242
S.E. of regression	1.032923	Sum squared resid	41.61029
F-statistic	105.7494	Durbin-Watson stat	1.771427
Prob(F-statistic)	0.000000		

Table 16 F Test Results

R-squared	0.844311	Mean dependent var	-2.623820
Adjusted R-squared	0.836327	S.D. dependent var	13.00242
S.E. of regression	1.032923	Sum squared resid	41.61029
F-statistic	105.7494	Durbin-Watson stat	1.771427
Prob(F-statistic)	0.000000		

Based on the results of the F test, it shows that the profitability value of 0.000000 is smaller than 0.05. The calculated F value of 105.7494 > Ftable of 4.084745733. Thus, it can be concluded that Ho is rejected and Ha is accepted, meaning that Asset Use Efficiency and Debt Structure simultaneously have

a significant effect on Profitability in infrastructure companies listed on the Indonesia Stock Exchange for the period 2019-2025.

Table 17 Results of the Coefficient of Determination (R2) test

Weighted Statistics			
R-squared	0.844311	Mean dependent var	-2.623620
Adjusted R-squared	0.836327	S.D. dependent var	13.00242
S.E. of regression	1.032923	Sum squared resid	41.61029
F-statistic	105.7494	Durbin-Watson stat	1.771427
Prob(F-statistic)	0.000000		

Based on descriptive statistics, there are 29 observations from six infrastructure companies for the 2019–2025 period. Profitability (ROA) has an average of 0.0920 with a fairly high variation and is not normally distributed based on the Jarque-Bera test. Meanwhile, Total Asset Turnover has an average of 0.8162 and Debt to Asset Ratio of 0.4049, both of which are normally distributed. In general, the data shows inter-company variation in each research variable.

Discussion

1. The Effect of Asset Utilization Efficiency on Profitability

Based on the results obtained regarding Asset Utilization Efficiency and Profitability of infrastructure companies listed on the Indonesia Stock Exchange. The results of the partial hypothesis test show that the Asset Utilization Efficiency variable (X1) has a significance value of 0.9789, which is much greater than the significance level of 0.05. The calculated t-value of 0.026588 is also much smaller than the t-table (around 2.021). Thus, H_0 is accepted and H_a is rejected, which means that Asset Utilization Efficiency does not affect Profitability in infrastructure companies listed on the Indonesia Stock Exchange (IDX) during the 2019-2025 period. This is in line with the research of Ikhsanuddin Sulaeman Atiq & Krisnaldy (2025).

2. The Effect of Debt Structure on Profitability

Based on the results obtained regarding the Debt Structure and Profitability of infrastructure companies listed on the Indonesia Stock Exchange. The results of the partial hypothesis test indicate that the Debt Structure variable (X2) has a significance value of 0.0000 which is smaller than 0.05. The t-count value of 14.79333 is absolutely greater than the t-table (2.021), so H_0 is rejected and H_a is accepted. This indicates that Debt Structure has a significant effect on Profitability in infrastructure companies listed on the Indonesia Stock Exchange for the 2019-2025 period. This is in line with the research of Chika Dyah Kurniadi & Mohammad Safii (2025).

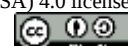
3. The Effect of Asset Utilization Efficiency and Debt Structure on Profitability

Based on the results of the F test obtained regarding the Efficiency of Asset Use and Debt to Asset Ratio on the profitability of infrastructure companies listed on the Indonesia Stock Exchange. The results of the simultaneous hypothesis test F show that the profitability value of 0.000000 is smaller than 0.05. The calculated F value of 105.7494 > Ftable of 4.084. Thus, it can be concluded that H_0 is rejected and H_a is accepted, meaning that Efficiency of Asset Use and Debt Structure simultaneously have a significant effect on Profitability in infrastructure companies listed on the Indonesia Stock Exchange for the period 2019-2025.

This is supported by research by Rahayu Nur Hidayah & Faisal (2025) which states that simultaneously the Total Asset ratio and Debt to Asset Ratio have a significant effect on Return on Assets.

Conclusion

This study shows that Asset Utilization Efficiency as measured by Total Asset Turnover has no significant effect on Profitability, while Debt Structure as measured by Debt to Asset Ratio has a significant effect on the Profitability of infrastructure companies for the period 2019–2025. Simultaneously, Asset Utilization Efficiency and Debt Structure have a significant effect on Profitability, so that asset management and funding structure together are important aspects in improving company performance.



This study is limited by its relatively small sample size, consisting of only six companies, spanning the 2019–2025 period. Therefore, the results cannot be generalized to all infrastructure companies. Future research is recommended to expand the sample size, extend the study period, and incorporate other variables that could potentially impact profitability. Practically, companies need to prioritize optimal debt structure management and improve asset management effectiveness so that financial decisions can support sustainable profitability growth.

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