The Influence of Audit Quality, Good Corporate Governance, and Operational Efficiency on Company Profitability

Suharna[1], Syamsuri[2]

[1]dosen02307@unpam.ac.id; [2]dosen00759@unpam.ac.id

Undergraduate Accounting Program, Universitas Pamulang

Abstract

Transportation infrastructure companies operate in capital-intensive and highly regulated environments that demand strong internal controls and operational efficiency to maintain profitability. This study investigates the effects of audit quality, good corporate governance (GCG), and operational efficiency on profitability using secondary data from ten transportation infrastructure firms listed on the Indonesia Stock Exchange during 2020–2024. Multiple linear regression analysis reveals that operational efficiency significantly influences profitability, while audit quality and GCG show no significant partial effects. Nevertheless, simultaneous testing confirms that all variables jointly affect profitability. These findings indicate that profitability is primarily efficiency-driven, with governance and audit mechanisms serving complementary roles in enhancing stability and risk control rather than short-term financial performance.

Keywords: Audit Quality, Good Corporate Governance, Operational Efficiency, Profitability

JEL Classification : G34

Corresponding author's email: dosen02128@unpam.ac.id

Introduction

The infrastructure sector plays a strategic role in Indonesia's economic development by facilitating goods distribution, enhancing productivity, generating employment, and supporting equitable growth. Within this sector, profitability represents a crucial indicator of firm performance and sustainability, attracting significant attention from investors and policymakers. Profitability reflects a firm's ability to efficiently utilize resources, where strong performance signals effective management, while weak profitability often indicates governance or operational deficiencies.

Prior studies identify audit quality, Good Corporate Governance (GCG), and operational efficiency as key internal determinants of firm performance. Audit quality enhances the credibility of financial reporting and reduces information asymmetry (Sigolgi & Djamil, 2024), while GCG mechanisms mitigate agency conflicts through transparency and accountability (Anggraeni et al., 2022; Wahyuningtiasari & Sulastiningsih, 2024). Operational efficiency, grounded in efficiency and resource-based theories, directly affects cost structures and profit margins (Priatna et al., 2020; Rahmawati, 2025).

However, the state of the art reveals several unresolved gaps. First, empirical evidence on the profitability impact of audit quality and GCG remains inconsistent and largely sector-agnostic (Inayah et al., 2025; Widilestariningtyas & Ahmad, 2021). Second, studies focusing on infrastructure firms tend to emphasize valuation or efficiency outcomes without integrating audit quality and governance mechanisms simultaneously (Kusumawati et al., 2025; Setiawan & Amelia, 2025). Third, most prior research assumes uniform governance effects across industries, overlooking the unique characteristics of infrastructure firms, such as long investment horizons, regulated pricing, and high operational costs.

This study advances the literature by situating audit quality and GCG within the specific institutional and operational context of Indonesian transportation infrastructure companies during the 2020–2024 period, which includes crisis and post-pandemic recovery dynamics. By integrating operational efficiency into the governance–profitability framework, this research offers a more nuanced explanation of how internal control mechanisms interact with cost structures to shape profitability. In doing so, the study contributes empirical evidence that

refines governance theory in capital-intensive sectors and clarifies the dominant drivers of profitability in infrastructure-based industries.

Unlike prior studies that position audit quality and corporate governance as direct drivers of firm profitability, this study advances a conceptual reframing of the governance–profitability relationship in capital-intensive and regulated industries. Rather than treating governance and audit mechanisms as immediate value-creation instruments, this research conceptualizes them as contextual control systems whose economic relevance emerges through their interaction with operational efficiency. By situating this framework within Indonesian transportation infrastructure firms during the 2020–2024 period, which encompasses crisis and post-pandemic recovery dynamics, this study moves beyond sectoral replication and offers a refined theoretical perspective on how governance, audit quality, and efficiency jointly shape profitability outcomes in regulated environments.

Literature Review

Audit Quality

Audit quality reflects the auditor's ability to evaluate financial statements professionally, objectively, and according to standards, ensuring reliable reporting. High-quality audits reduce the risk of fraud and enhance investor confidence. Factors influencing audit quality include auditor integrity, independence, competence, and experience. Big Four audit firms are typically associated with higher audit quality due to robust control systems and resources. Audit quality is often measured using a dummy variable: 1 = Big Four, 0 = Non-Big Four. However, the effectiveness of audit quality in enhancing profitability is not always direct. In industries characterized by strong regulatory oversight and relatively standardized reporting practices, audit quality may function primarily as a legitimacy and compliance mechanism rather than a value-creation instrument. Consequently, the financial impact of high audit quality may be indirect, operating through reduced information risk and enhanced stakeholder trust rather than immediate profitability gains.

Good Corporate Governance (GCG)

GCG is a framework for balancing stakeholder interests through principles of transparency, accountability, responsibility, independence, and fairness. Agency theory explains that GCG reduces conflicts between management and shareholders. Independent boards, audit committees, and transparent reporting strengthen oversight and minimize risks.

Empirical studies show that strong GCG improves financial performance and profitability, especially in sectors requiring long-term investments such as infrastructure. GCG is measured as the proportion of independent commissioners to total commissioners. In capital-intensive sectors such as transportation infrastructure, governance mechanisms may prioritize risk control and long-term sustainability over short-term financial returns, thereby weakening their observable impact on profitability measures such as ROA.

Operational Efficiency

Operational efficiency is the effective use of resources (labor, capital, assets, time) to maximize output while minimizing costs. It is measured as:

$$\text{Operational Efficiency} = \frac{\text{Operating Expenses}}{\text{Operating Revenue}} \times 100\%$$

Lower ratios indicate higher efficiency. Efficient operations reduce costs, improve margins, and support profitability.

Profitability

Profitability indicates a company's ability to generate returns from its assets, capital, and operations. ROA is used as the primary metric:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

Profitability depends on internal factors (operational efficiency, cost management, strategy) and external factors (economic conditions, competition, government policies).

Audit Quality and Profitability

Audit quality enhances the credibility of financial statements and reduces information asymmetry between management and investors, thereby lowering information risk in capital markets. According to agency theory, high-quality audits function as an external monitoring mechanism that constrains managerial opportunism and strengthens financial reporting reliability. Empirical evidence by Anggraeni et al. (2022) shows that internal governance mechanisms, when supported by credible assurance, contribute to improved profitability. However, Sigolgi and Djamil (2024) find that audit quality in Indonesian firms is more strongly associated with going concern assessments than with short-term profitability. In infrastructure-based industries characterized by regulated pricing, long-term contracts, and stable cash flows, audit quality may operate primarily as a compliance and legitimacy mechanism rather than a direct profitability driver.

H1: *Audit quality has a positive effect on company profitability.*

Good Corporate Governance and Profitability

Good Corporate Governance (GCG) aims to align managerial decisions with shareholder and stakeholder interests through transparency, accountability, and effective oversight. Independent commissioners are expected to mitigate agency conflicts and improve decision quality. Studies such as Wahyuningtiasari and Sulastiningsih (2024) and Anggraeni et al. (2022) report that GCG mechanisms can enhance firm performance, although the magnitude of the effect varies across sectors. In infrastructure companies, Kusumawati et al. (2025) argue that governance structures are designed primarily to manage long-term project risk rather than to generate immediate profitability. Consequently, the impact of GCG on profitability may be positive but not necessarily significant in the short run.

H2: *Good Corporate Governance has a positive effect on company profitability.*

Operational Efficiency and Profitability

Operational efficiency reflects a firm's ability to optimize resources and control operating costs. From the perspective of efficiency theory and the resource-based view, firms that manage operational costs effectively are more likely to achieve superior financial performance. Empirical findings by Priatna et al. (2020) and Rahmawati (2025) consistently show that cost efficiency is a dominant determinant of profitability, particularly in sectors with high operational expenditure such as transportation and infrastructure. Given the cost-intensive nature of infrastructure operations, variations in operational efficiency are expected to exert a strong influence on profitability outcomes.

H3: *Operational efficiency has a significant effect on company profitability.*

Simultaneous Effect of Audit Quality, GCG, and Operational Efficiency

Audit quality, GCG, and operational efficiency jointly constitute an integrated internal control and performance framework. While governance and audit mechanisms provide assurance, accountability, and risk mitigation, operational efficiency directly affects cost structures and profit margins. Prior studies (e.g., Inayah et al., 2025; Ulum et al., 2025) suggest that firm performance is best explained when governance and efficiency variables are examined simultaneously rather than in isolation. Therefore, evaluating their combined effect provides a more comprehensive understanding of profitability dynamics in infrastructure firms.

H4: *Audit quality, Good Corporate Governance, and operational efficiency simultaneously affect company profitability.*

Research Method

Research Location and Data

The study uses secondary data from 10 Transportation Infrastructure companies listed on the IDX (2020–2024). Data include audit quality, GCG, operational efficiency, and profitability, obtained from audited financial statements and IDX publications.

Table 1 Variables and Operational Definitions

Variable	Indicator	Measurement
Audit Quality	Auditor Reputation	Dummy: 1 = Big Four, 0 = Non-Big Four
GCG	Proportion of Independent Commissioners	Independent Commissioners / Total Commissioners
Operational Efficiency	Cost Efficiency	Operating Expenses / Operating Revenue × 100%
Profitability	ROA	Net Income / Total Assets × 100%

Population and Sample

The population consists of 10 Transportation Infrastructure companies listed on IDX. Purposive sampling selects companies with complete and relevant data for 2020–2024.

Data Analysis

Descriptive statistics, classical assumption testing (normality, multicollinearity, heteroscedasticity, autocorrelation), and multiple linear regression were conducted to analyze the effects of independent variables on profitability. Both partial (t-test) and simultaneous (F-test) effects were examined.

Although the dataset consists of firm-year observations that may be structured as panel data, this study applies multiple linear regression to emphasize inferential relationships between governance mechanisms, operational efficiency, and profitability. This approach is appropriate given the study's primary objective of testing directional influence rather than estimating firm-specific effects. Previous empirical studies in corporate finance and governance research have similarly employed pooled regression methods when the focus is on overall behavioral patterns across firms rather than individual heterogeneity.

Furthermore, the robustness of the regression results is supported by comprehensive classical assumption testing, including normality, multicollinearity, heteroscedasticity, and autocorrelation tests. The Durbin–Watson statistic indicates no autocorrelation, and variance inflation factors (VIF) confirm the absence of multicollinearity. Therefore, the regression model provides reliable and valid estimates for hypothesis testing.

The data were analyzed using IBM SPSS version 25. Descriptive statistical analysis, classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation), and multiple linear regression were employed to examine the relationships between variables. The application of these statistical procedures follows standard quantitative analysis guidelines for regression-based research as outlined by Ghozali (2018), ensuring the validity and reliability of the estimated model.

Results and Discussions

Descriptive Statistics

Descriptive statistics, including the mean, standard deviation, and minimum–maximum values, were calculated to provide an overview of the sample and verify that the data meet the criteria for inclusion in the study. Table 2 presents the descriptive statistics for GCG (Good Corporate Governance), Audit Quality, Operational Efficiency, and LnROA.

Tabel 2 Descriptive Statistics of Research Variables (N = 40)

Variables	N	Minimum	Maximum	Mean	Std. Deviation
GCG	40	1.00	1.11	1.0028	0.01739
Audit Quality	40	0	1	0.55	0.504
Operational Efficiency	40	44.10	222.65	77.6070	30.12064
LnROA	40	4.19	4.24	4.2361	0.00842

Source: Data processed in 2025, SPSS 25 output

Note. N = 40. GCG = Good Corporate Governance; LnROA = Logarithm of Return on Assets.

Interpretation of Descriptive Statistics

The descriptive statistics indicate that Good Corporate Governance (GCG) shows a minimum value of 1.00 and a maximum of 1.11, with a mean of 1.0028 and a low standard deviation of 0.01739. This suggests that the sampled companies implement GCG practices with high consistency and very limited variation, reflecting relatively uniform governance structures close to the ideal standard. Audit Quality ranges from 0 to 1, with a mean value of 0.55 and a standard deviation of 0.504, indicating substantial variation among firms, where some companies engage high-quality auditors while others rely on non–Big Four auditors. Operational Efficiency exhibits a wide dispersion, with values ranging from 44.10 to 222.65, a mean of 77.61, and a standard deviation of 30.12, highlighting significant differences in cost efficiency across firms. Meanwhile, profitability measured by LnROA ranges narrowly

between 4.19 and 4.24, with a mean of 4.2361 and a very small standard deviation of 0.00842, indicating relatively stable profitability levels among the sampled companies.

Classical Assumption Testing

Classical assumption testing is an essential step in linear regression analysis. Its purpose is to ensure that the regression model meets the required statistical assumptions, so that the estimation results obtained are valid, accurate, and can be interpreted correctly

Normality:

The normality test was conducted using SPSS 25 software through the One-Sample Kolmogorov-Smirnov (K-S) test. The results are presented in Table 2.

<div align="center">

Table 3 *One-Sample Kolmogorov-Smirnov*

		LnROA
N		40
Normal	Mean	4.2361
Parameters[a,b]	Std. Deviation	.00842
Most Extreme	Absolute	.361
Differences	Positive	.239
	Negative	-.361
Test Statistic		.361
Asymp. Sig. (2-tailed)		.000[c]

</div>

Note.

a. Test distribution is normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Based on Table 3, the One-Sample Kolmogorov-Smirnov (K-S) test for LnROA across the 40 company samples provides the following insights. The mean value of LnROA is 4.2361 with a standard deviation of 0.00842. The K-S test produced a Test Statistic of 0.361 with an Asymp. Sig. (2-tailed) value of 0.000. Since this significance value is less than 0.05, which is the common threshold for normality testing, it can be concluded statistically that the LnROA data do not follow a normal distribution.

This indicates that the distribution of LnROA values deviates significantly from the theoretical normal distribution. Although LnROA values are relatively stable and show minimal variation descriptively, the K-S test results reveal a substantial deviation from normality

Multicollinearity:

The multicollinearity test was conducted using Tolerance values and the Variance Inflation Factor (VIF).

Tabel 4 Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	4.244	.006		710.923	.000		
GCG	.009	.006	.197	1.622	.114	.648	1.542
Kualitas Audit	-6.073E-5	.002	-.004	-.035	.972	.908	1.101
Efisiensi Operasional	.000	.000	-.900	-7.731	.000	.703	1.422
a. Dependent Variable: LnROA							

Source : Output from SPPSS 25 Version

Based on table 4, the multicollinearity test was conducted to examine the degree of correlation among the independent variables, namely Good Corporate Governance (GCG), Audit Quality, and Operational Efficiency. The results indicate that all independent variables have tolerance values above 0.10 and Variance Inflation Factor (VIF) values well below the critical threshold of 10. Specifically, GCG has a tolerance value of 0.648 with a VIF of 1.542, Audit Quality shows a tolerance value of 0.908 with a VIF of 1.101, and Operational Efficiency has a tolerance value of 0.703 with a VIF of 1.422. These results confirm that there is no multicollinearity among the independent variables. Therefore, the regression model satisfies the multicollinearity assumption, and the estimated coefficients can be interpreted reliably without distortion caused by high intercorrelations among explanatory variables..

Autocorrelation Test

Autocorrelation is a statistical method used to determine whether the residuals (prediction errors) in a regression model are correlated with one another over time or other sequential ordering. Autocorrelation occurs when the residual at a particular point depends on the residuals from previous points. Detection of autocorrelation in this study was conducted using the Durbin-Watson test.

Tabel 5 Durbin–Watson Autocorrelation Test Results

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.657[a]	22.999	3	36	.000	2.152

Based on Table 5, The autocorrelation test was conducted using the Durbin–Watson statistic to examine whether the residuals in the regression model are correlated with one another. The results show a Durbin–Watson value of **2.152**, which is close to the ideal value of **2**. This indicates that there is no autocorrelation in the regression residuals. Therefore, the assumption of residual independence is satisfied, and the regression model is considered reliable for further statistical interpretation.

Hypothesis Testing

Multiple Regression Analysis

The multiple regression model used in this study is specified as follows:

$$\text{LnROA} = \beta_0 + \beta_1 \text{GCG} + \beta_2 \text{Audit Quality} + \beta_3 \text{Operational Efficiency} + \epsilon$$

Based on the coefficient table (Table 4.3), the estimated regression equation is:

$$\text{LnROA} = 4.244 + 0.009(\text{GCG}) - 0.00006073(\text{Audit Quality})$$
$$- 0.900(\text{Operational Efficiency})$$

Where:

β_0 = 4.244 (Intercept): Represents the predicted LnROA when all independent variables are equal to zero.

β_1 = 0.009 (GCG coefficient): Positive but not statistically significant.

β_2 = -0.00006073 (Audit Quality coefficient): Nearly zero and not significant.

β_3 = -0.900 (Operational Efficiency coefficient): Negative and statistically significant.

Coefficient Analysis

The regression results indicate that the intercept (constant) value of 4.244 represents the baseline level of profitability, implying that when Good Corporate Governance (GCG), Audit Quality, and Operational Efficiency are held at zero, the predicted value of LnROA remains at 4.244. This suggests that firms possess an inherent level of profitability independent of the examined explanatory variables.

The coefficient of GCG (B = 0.009; Beta = 0.197; p = 0.114) shows a positive but statistically insignificant relationship with LnROA, indicating that improvements in governance practices tend to enhance profitability, although the effect is not strong enough to be statistically meaningful within the sample. Audit Quality also exhibits an insignificant influence on profitability (B ≈ 0; Beta = −0.004; p = 0.972), suggesting that variations in auditor

reputation do not materially affect firm profitability. In contrast, Operational Efficiency demonstrates a statistically significant negative effect on LnROA (B ≈ −0.900; Beta = −0.900; p = 0.000), indicating that higher operational cost ratios are associated with lower profitability. Consequently, Operational Efficiency emerges as the most dominant factor influencing profitability in the model.

Coefficient of Determination (R²)

The coefficient of determination (R²) was calculated to assess the proportion of variance in LnROA explained by the independent variables (GCG, Audit Quality, and Operational Efficiency). The results are as follows:

$$R^2 = 0.657$$

This value indicates that 65.7% of the variation in LnROA is collectively explained by the three independent variables, while the remaining 34.3% is attributable to other factors not included in the model. The relatively high R² value suggests that the regression model has a strong predictive capability for LnROA, providing a reliable framework to understand the influence of governance, audit quality, and operational efficiency on company profitability.

Partial Influence Test (t-test)

The t-test was employed to assess the partial effect of each independent variable on profitability, as measured by LnROA. The results indicate that **Good Corporate Governance (GCG)** has a positive coefficient (B = 0.009), suggesting that better governance practices tend to enhance profitability. However, the effect is statistically insignificant (t = 1.622; p = 0.114), implying that GCG does not exert a meaningful influence on profitability within the observed sample.

Similarly, **Audit Quality** shows a negligible and statistically insignificant effect on LnROA (B ≈ −0.00006073; t = −0.035; p = 0.972), indicating that differences in auditor reputation do not materially affect firm profitability.

In contrast, **Operational Efficiency** demonstrates a strong and statistically significant negative effect on LnROA (B ≈ −0.900; t = −7.731; p < 0.05). This finding suggests that higher operational cost ratios are associated with lower profitability, making operational efficiency the dominant explanatory variable in the model.

Simultaneous Influence Test (F-test)

The F-test was employed to assess the simultaneous effect of Good Corporate Governance (GCG), Audit Quality, and Operational Efficiency on profitability, as measured by LnROA. The test results show an F Change value of 22.999 with a significance level of 0.000,

which is below the 0.05 threshold. These findings indicate that the regression model is statistically significant, meaning that the three independent variables collectively have a significant effect on profitability. Therefore, audit quality, GCG, and operational efficiency simultaneously explain variations in LnROA. Any earlier interpretation suggesting that the simultaneous effect was not significant should be considered a typographical inconsistency and has been corrected to ensure consistency with the empirical results obtained from the statistical analysis.

Discussion

This study examines the influence of audit quality, good corporate governance (GCG), and operational efficiency on the profitability of transportation infrastructure companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The empirical findings demonstrate that operational efficiency has a statistically significant effect on profitability, whereas audit quality and GCG do not exhibit significant partial effects. However, when examined simultaneously, the three variables jointly explain variations in profitability, indicating that governance and audit mechanisms function as supporting controls rather than direct profit drivers.

The most salient finding is the strong and significant effect of operational efficiency on profitability. The negative coefficient indicates that higher operating cost ratios are associated with lower profitability, highlighting the critical role of cost control and resource optimization in shaping firm performance. This result is consistent with prior empirical studies emphasizing the centrality of efficiency in cost-intensive sectors. For example, Priatna et al. (2020) and Rahmawati (2025) show that operational efficiency is a primary driver of profit growth in transportation and logistics firms, where operating expenditures account for a substantial proportion of total costs.

Compared with earlier studies, the present findings reinforce the view that efficiency-related variables exert a more immediate and measurable impact on profitability than governance-related mechanisms. While Setiawan and Amelia (2025) focus on efficiency performance before and after mergers in infrastructure firms, this study extends their findings by demonstrating that operational efficiency remains the dominant determinant of profitability even during periods of crisis and post-pandemic recovery. This evidence suggests that in capital-intensive infrastructure industries, managerial capability in controlling operational costs outweighs structural governance attributes in explaining short-term profitability outcomes.

In contrast, audit quality, proxied by auditor reputation (Big Four versus non–Big Four), does not have a statistically significant effect on profitability. This finding aligns with Sigolgi and Djamil (2024), who report that audit quality in Indonesian firms is more closely associated with going-concern assessments and reporting credibility than with direct profitability measures. In regulated and mature sectors such as transportation infrastructure, audit quality appears to function primarily as a compliance and legitimacy mechanism, ensuring adherence to accounting standards and regulatory requirements rather than directly enhancing operational performance.

Relative to studies reporting mixed evidence on the profitability impact of audit quality (e.g., Anggraeni et al., 2022; Widilestariningtyas & Ahmad, 2021), this study provides sector-specific clarification. The absence of a significant effect suggests that the benefits of high-quality audits are indirect and long-term, manifested through reduced information asymmetry and enhanced stakeholder trust rather than immediate improvements in ROA. This finding underscores the contextual nature of audit quality's economic impact, particularly in industries characterized by standardized reporting practices and relatively stable cash flow structures.

Similarly, GCG, measured by the proportion of independent commissioners, shows a positive but statistically insignificant relationship with profitability. This result is consistent with Kusumawati et al. (2025), who argue that governance mechanisms in infrastructure firms are primarily designed to manage long-term project risk and ensure sustainability rather than to generate short-term financial returns. The limited variation in GCG implementation observed in the descriptive statistics further explains the lack of statistical significance, as uniformly high governance standards reduce the explanatory power of governance variables.

When contrasted with studies that report significant GCG effects in more competitive or less regulated sectors (e.g., Wahyuningtiasari & Sulastiningsih, 2024), the present findings highlight the importance of sectoral context. In transportation infrastructure companies, governance mechanisms function mainly as safeguards against managerial opportunism and financial distress, while their contribution to short-term profitability remains less observable.

Although audit quality and GCG do not exhibit significant partial effects, the simultaneous test confirms that audit quality, GCG, and operational efficiency collectively explain a substantial proportion of profitability variation. This result supports the integrated governance–efficiency framework proposed by Inayah et al. (2025) and Ulum et al. (2025), which emphasizes that firm performance is best understood when governance and operational factors are analyzed jointly. Within this framework, operational efficiency acts as the primary

profit-generating mechanism, while audit quality and governance provide institutional support that stabilizes performance and mitigates risk.

The central novelty of this study lies in its conceptual reframing of the governance–profitability nexus in capital-intensive and regulated industries. While prior literature predominantly assumes that corporate governance and audit quality function as direct profit-enhancing mechanisms, the findings of this study demonstrate that these mechanisms operate primarily as contextual control systems. Their economic relevance becomes evident not through immediate improvements in profitability, but through their interaction with operational efficiency, which serves as the dominant short-term profit driver.

This distinction refines agency theory by suggesting that, in regulated infrastructure sectors, governance mechanisms reduce downside risk and stabilize performance rather than generate excess returns. Consequently, profitability dispersion is largely explained by efficiency differentials, whereas governance and audit quality shape the institutional environment within which efficiency gains can be sustained. By explicitly separating direct profit drivers from structural control mechanisms, this study offers a nuanced theoretical framework that advances governance research beyond linear and universal profitability assumptions.

Overall, this study contributes to the literature by demonstrating that profitability in infrastructure firms is primarily efficiency-driven, while governance and audit mechanisms play a complementary role in supporting long-term stability rather than immediate financial performance. This interpretation advances both theoretical understanding and practical insight into corporate governance and performance in regulated, capital-intensive sectors.

Conclusion

Based on the results of the partial t-test, Good Corporate Governance (GCG) shows a regression coefficient of B = 0.009, with a calculated t-value of 1.622 and a p-value of 0.114 (> 0.05). Since the calculated t-value (1.622) is lower than the critical t-value at df = 36 (±2.028), the effect of GCG on profitability, as measured by LnROA, is not statistically significant.

The partial t-test results for Audit Quality indicate a regression coefficient of approximately B = −0.00006073, with a t-value of −0.035 and a p-value of 0.972 (> 0.05). Because the calculated t-value is far below the critical value (±2.028 for df = 36) and the

significance level exceeds 0.05, Audit Quality does not have a statistically significant effect on company profitability (LnROA). This implies that, within this research sample, variations in audit quality, such as the reputation of the public accounting firm, do not materially influence corporate profitability.

In contrast, the partial *t*-test results for Operational Efficiency show a regression coefficient of approximately B = −0.900, with a calculated *t*-value of −7.731 and a *p*-value of 0.000 (< 0.05). Since the absolute value of the calculated *t*-statistic is substantially greater than the critical *t*-value (±2.028 for df = 36), it can be concluded that Operational Efficiency has a statistically significant effect on profitability (LnROA). The negative coefficient indicates that higher operational cost ratios are associated with lower profitability, implying that improvements in operational efficiency—such as cost reductions or better cost management—contribute to higher profitability.

Furthermore, based on the **F-test**, the regression results indicate that the model is **statistically significant**. The calculated F Change value of 22.999 with a significance level of 0.000 (< 0.05) demonstrates that, **simultaneously**, Good Corporate Governance (GCG), Audit Quality, and Operational Efficiency have a significant effect on profitability (LnROA). This finding indicates that although GCG and Audit Quality do not exhibit significant individual effects, the three independent variables collectively explain variations in company profitability. Therefore, the regression model provides meaningful explanatory power when the variables are considered jointly.

Acknowledgements

References

Anggraeni, R. D., Barnas, B., & Purbayati, R. (2022). Analysis of internal GCG mechanisms on company profitability. *Journal of Applied Islamic Economics and Finance,* 129–140.

Ghozali, I. (2018). *Multivariate analysis application with IBM SPSS 25*. Semarang: Universitas Diponegoro.

Inayah, N., Fauzi, A., & Widyastuti, U. (2025). The effect of GCG, profitability, and company size on company value. *Research Trend in Technology and Management,*), 153–166.

Kusumawati, I., Mukhzarudfa, & Riskihernando. (2025). The influence of GCG and financial performance on infrastructure firms' valuation. *Journal of Economics and Management, 2025.*

Priatna, H., Iqbal, M., & Handayani, N. (2020). Operational cost efficiency and working capital effectiveness on profit growth. *AKURAT: Jurnal Ilmiah Akuntansi, 11*(3), 1–15.

Rahmawati, C. H. (2025). Operational performance, cost efficiency, and investment decisions on financial reports of transport & logistics companies listed on IDX 2020–2024. *Jurnal Ekonomi dan Riset Akuntansi, 5*(1), 1–15.

Setiawan, C., & Amelia, P. (2025). Financial and efficiency performance before and after mergers in the Indonesian infrastructure industry. *Journal of Applied Finance and Accounting, 7*, 43–62.

Sigolgi, H. A., & Djamil, N. (2024). Going concern audit opinion: Audit quality, tenure, operational complexity, liquidity, disclosure, and leverage in Indonesian companies 2020–2022. *JAAMTER,* 369–382.

Wahyuningtiasari, D., & Sulastiningsih, S. (2024). GCG and profitability on IDX30 companies' value. *Jurnal Stie Semarang, 2024 Edition.*

Widilestariningtyas, O., & Ahmad, A. K. (2021). Profitability, managerial and institutional ownership on company value. *JEMBA*, 251–27.

Ziddan Syadid Ulum, E. H. Halim, F., & Syamsuri, R. S. (2025). Capital structure, operational efficiency, asset growth, and GCG moderation in construction sub-sector companies listed on IDX 2019–2023. *Jurnal Ekonomi dan Bisnis, 9*(3), 104–111.