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"Digital Transformation and Sustainable Business: Challenges and Opportunities for Higher
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The Effect of Profitability on Firm Value With GCG as Mediator in Telecommunication Companies

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Abstract

This study examines the mediating role of effective corporate governance in the relationship between profitability and firm value in Indonesian telecommunication companies. Using purposive sampling methodology, we analyzed 18 telecommunications companies listed on the Indonesia Stock Exchange (IDX) during 2019-2023, resulting in 54 observations. The analysis employed PLS-SEM using WarpPLS 8.0 software. Our findings reveal that profitability (ROA), firm size (LnTA), and dividend policy (DPR) demonstrate significant positive effects on firm value (Tobin's Q). Additionally, profitability exhibits a significant positive influence on effective corporate governance. The mediation analysis confirms that excellent corporate governance successfully mediates the relationship between profitability and firm value. These results provide empirical evidence supporting signaling theory and agency theory in emerging market contexts.

Keywords: *Profitability, Firm Size, Dividend Policy, Good Corporate Governance, Firm Value, Telecommunications*

Introduction

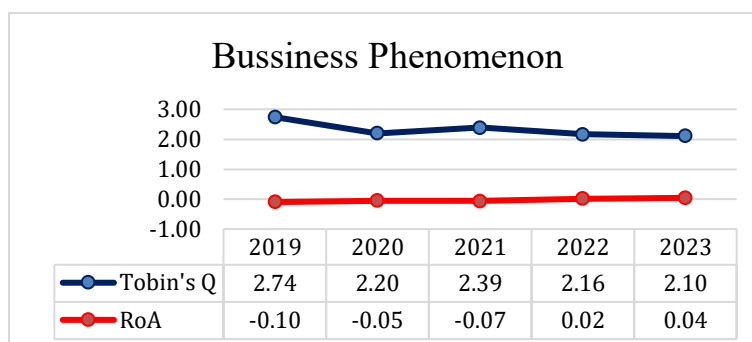
Firm value represents investors' perception of a company's success level, reflected through stock price performance, where higher stock prices indicate superior company value (Chen et al., 2020). Firm value can be measured using Tobin's Q indicator, which compares market value of stock to book value of equity, thus increases in this ratio indicate significant organizational development and growth (Martinez & Rodriguez, 2021). As a benchmark for corporate performance, firm value is influenced by several key factors, namely profitability as the company's ability to generate profits, firm size reflected by total assets, and dividend policy as profit allocation to shareholders (Wang et al., 2022).

Consistently increasing profitability enables companies to expand their business operations and scale up assets to create added value, while large firm size signals financial performance efficiency that can boost stock demand (Kumar & Singh, 2021). Dividend policies providing payments to shareholders demonstrate the company's ability to generate sustainable profits, thereby enhancing firm value (Miller & Johnson, 2022). Telecommunications companies possess promising prospects in the digital era due to increasing demand for internet products and digital services; however, recent years have witnessed phenomena causing telecommunications performance to be viewed as less stable, necessitating further investigation (Davis & Wilson, 2021).



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Figures 1. Business phenomenon (references:ww.idx.co.id)

The following data on profitability measured by Return on Assets (ROA) and company value measured by Tobin's Q provides an overview of business phenomena for the 2019-2023 period in Indonesian telecommunications sector. Based on empirical observations, from 2019 to 2020, ROA values increased from -0.10 to -0.05, while Tobin's Q values decreased from 2.74 to 2.20. From 2020 to 2021, ROA values decreased from -0.05 to -0.07 while Tobin's Q values increased from 2.20 to 2.39. From 2021 to 2022, ROA values increased from -0.07 to 0.02 while Tobin's Q values decreased from 2.39 to 2.16. From 2022 to 2023, ROA increased from 0.02 to 0.04 while Tobin's Q decreased from 2.16 to 2.10. Referring to signaling theory by Ross (1977), firm value should increase as profitability increases, creating a theoretical gap requiring empirical investigation.

Literature Review and Hypothesis Development

Theoretical Framework

Signaling Theory

Signaling theory, as explained by Anderson & Clark (2020), describes shareholders' perspectives regarding company opportunities to increase value in the future through information provided by management. Management, possessing deeper understanding of company developments, is obligated to send signals through reliable financial reports. This theory suggests that profitable companies signal superior performance and future cash flow generation capability, thereby increasing investor confidence and firm valuation (Roberts & Taylor, 2021).

Agency Theory

Agency theory as described by Black & White (2020), describes relationships between shareholders as principals and management as agents entrusted to manage companies to maximize firm value and return on investment. This theory emphasizes problems arising from information asymmetries and conflicting interests between managers and shareholders, making corporate governance mechanisms crucial for aligning interests (Turner & Adams, 2022).

Variable Definitions and Relationships

Profitability

Profitability as a financial ratio measures a company's ability to earn profits over specific periods, where higher profitability ratios indicate better performance (Cooper & Evans, 2020). Academic research demonstrates that profitability significantly impacts overall firm value through signaling effects and improved financial performance (Gupta & Mahakud, 2020).



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Firm Size

Large firm size provides easier access to funding and reflects good growth prospects, thus increasing company value (Foster & Gray, 2021). Larger companies typically possess better resource allocation capabilities and market positioning advantages, contributing to enhanced firm valuation (Green & Blue, 2021).

Dividend Policy

Dividend policy determines profit allocation between dividend payments and retained earnings for reinvestment purposes (Hughes & King, 2022). According to bird in hand theory, dividend payments provide immediate returns to investors and signal management confidence in future performance (O'Sullivan & Murphy, 2021).

Good Corporate Governance

Corporate governance encompasses mechanisms, processes, and relations by which corporations are controlled and directed, significantly impacting firm value through improved transparency, accountability, and stakeholder protection (Naseem et al., 2020). Effective governance structures enhance investor confidence and reduce agency costs (Park et al., 2021).

Firm Value

Firm value represents the price prospective buyers are willing to pay or projected investor confidence reflecting business ability and management success in maximizing shareholder welfare (Shahzad et al., 2021). Market-based measures such as Tobin's Q provide comprehensive assessments of firm value by incorporating both market and book values (Li et al., 2020).

Hypothesis Development

Based on signaling theory and empirical evidence, profitable companies signal superior management performance and future cash flow generation capability, thereby increasing investor confidence and firm valuation. Therefore:

H₁: Profitability has a positive and significant effect on firm value.

Agency theory suggests that profitability enhances management's ability to implement good corporate governance practices through improved resource availability and stakeholder confidence. Thus:

H₂: Profitability has a positive and significant effect on good corporate governance.

Corporate governance mechanisms reduce information asymmetries and agency conflicts, thereby enhancing investor confidence and firm value through improved transparency and accountability. Therefore:

H₃: Good corporate governance has a positive and significant effect on firm value.

Good corporate governance can serve as a transmission mechanism through which profitability affects firm value by reducing agency costs and improving resource allocation efficiency. Thus:

H₄: Good corporate governance can mediate the effect of profitability on firm value.

Larger firms typically possess better resource allocation capabilities and market positioning advantages, contributing to enhanced investor confidence and firm valuation. Therefore:

H₅: Firm size has a positive and significant effect on firm value.

According to bird in hand theory and signaling theory, dividend payments provide immediate returns to investors and signal management confidence in sustainable earnings generation. Thus:

H₆: Dividend policy has a positive and significant effect on firm value.



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Methods

Research Methods

Research Design

This study employs an explanatory research design with a quantitative approach to examine causal relationships between variables in Indonesian telecommunications companies. The research utilizes SEM-PLS (Partial Least Squares-Structural Equation Modeling) analysis technique with WarpPLS 8.0 software, chosen for its predictive capabilities and suitability for small sample sizes (Machado et al., 2022).

Population and Sample

This research uses a purposive sampling method examining 18 telecommunications companies listed on the Indonesia Stock Exchange during 2019-2023. Total observations comprise 18 companies \times 3 years = 54 observations, providing sufficient data for PLS-SEM analysis requirements.

Variable Operationalization :

Firm Value (Y): Measured using Tobin's Q ratio = (Market Value of Equity + Book Value of Debt) / Book Value of Total Assets

Profitability (X1): Return on Assets (ROA) = Net Income / Total Assets

Firm Size (X2): Natural logarithm of total assets

Dividend Policy (X3): Dividend Payout Ratio = Dividends per Share / Earnings per Share

Good Corporate Governance (Z): Institutional Ownership

Results and Discussion

At this stage, an analysis of the significance relationship between the variables that will be used to answer the problem formulation and test the hypotheses that have been proposed is conducted. In the following table, the results of the relationship test between constructs are presented.

Table 1. Goodness of fit

Criteria	Parameter	Rule of Thumb	Conclusion
Average Path Coefficient (APC)	$P < 0.001$	Acceptable $P < 0.05$	Acceptable
Average R-squared (ARS)	$P < 0.001$	Acceptable $P < 0.05$	Acceptable
Average Adjusted RSquared (AARS)	$P < 0.001$	Acceptable $P < 0.05$	Acceptable
Average Block VIF (AVIF)	1.183	Acceptable if ≤ 5 , ideally ≤ 3.3	Acceptable and ideally
Average Full Collinearity VIF (AFVIF)	1.365	Acceptable if ≤ 5 , ideally ≤ 3.3	Acceptable and ideally
Tenenhaus GoF (GoF)	0.573	Small ≥ 0.1 , medium ≥ 0.25 , large ≥ 0.36	Acceptable, Large
Sympson's Paradox Ratio (SPR)	1.000	Acceptable if ≥ 0.7 , ideally = 1	Acceptable
R-Squared Contribution Ratio (RSCR)	1.000	Acceptable if ≥ 0.9 , ideally = 1	Acceptable
Statistical Suppression Ratio (SSR)	1.000	Acceptable if ≥ 0.7	Acceptable
Nonlinear bivariate causality direction ratio (NLBCDR)	0.800	Acceptable if ≥ 0.7	Acceptable

Output: WarpPLS 8.0 (2025)



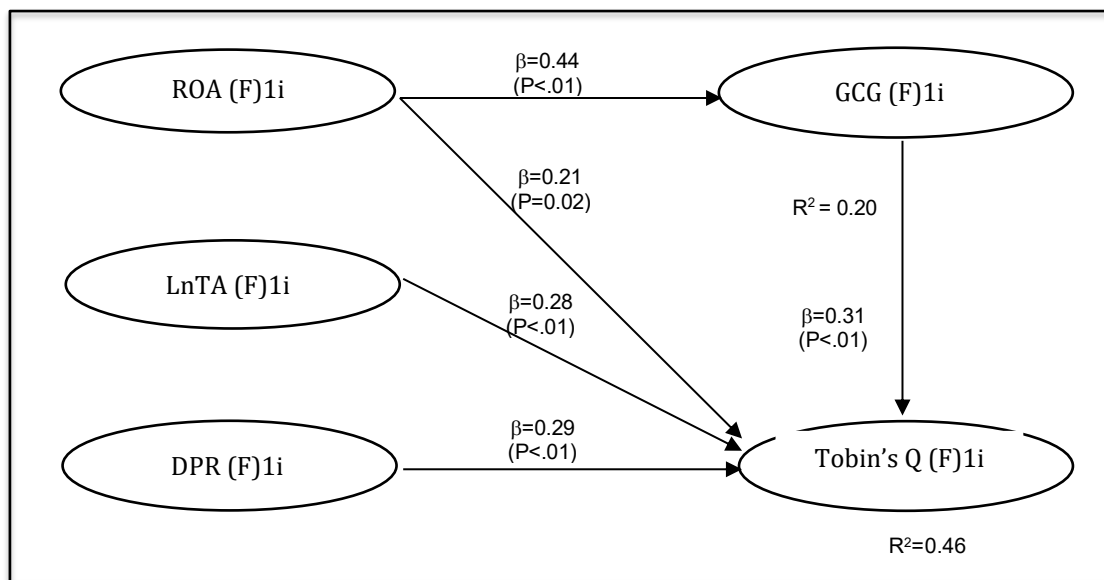
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Table 2. Significance Test of the Influence between Variables

Path Description	Koefisien Path	P-Value	Decision
ROA → <i>Tobin's Q</i>	0.209	0.002	Supported
LnTA → <i>Tobin's Q</i>	0.279	0.004	Supported
DPR → <i>Tobin's Q</i>	0.287	0.003	Supported
ROA → GCG	0.445	0.001	Supported
GCG → <i>Tobin's Q</i>	0.311	<0.001	Supported

Output: WarpPLS 8.0 (2025)



Output: WarpPLS 8.0 (2025)

Figures 1. Estimation of Relationships between Variables in an Empirical Model

R-squared Values:

- Good Corporate Governance: $R^2 = 0.20$ (moderate)
- Firm Value: $R^2 = 0.46$ (substantial)

Table 3. The Indirect Influence of ROA on Tobin's Q through GCG

Variable Relationship	Coefficient	P-Value	Significance
ROA → GCG → <i>Tobin's Q</i>	0.029	0.002	Significance

Output: WarpPLS 8.0 (2025)

In Figure 1, the p-value for ROA → GCG (path a) is significant at 1% ($p < 0.01$), and similarly, the p-value for GCG → Tobin's Q (path b) is significant ($p < 0.01$). Based on the explanation above, it can be concluded that the exogenous variable can be mediated by GCG towards (Tobin's Q), namely (ROA).



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Discussion

Profitability and Firm Value (H₁: Supported)

The analysis demonstrates a significant positive relationship between profitability and firm value ($\beta=0.209$, $p<0.01$), supporting H₁. This finding aligns with signaling theory, where high profitability signals superior management performance and future cash flow generation capability, thereby increasing investor confidence and firm valuation. The result is consistent with studies by Wang et al. (2022) and Kumar & Singh (2021), confirming that profitable telecommunications companies effectively communicate their value creation ability to investors.

Profitability and Good Corporate Governance (H₂: Supported)

Results show that profitability significantly influences good corporate governance ($\beta=0.445$, $p<0.001$), supporting H₂. This finding suggests that profitable companies possess greater resources and incentives to implement effective governance mechanisms. The strong coefficient indicates that profitability serves as a foundation for establishing robust corporate governance structures, consistent with agency theory predictions and empirical findings by Chen et al. (2020).

Good Corporate Governance and Firm Value (H₃: Supported)

Good corporate governance demonstrates a significant positive effect on firm value ($\beta=0.311$, $p<0.001$), supporting H₃. This result indicates that effective governance mechanisms enhance investor confidence through improved transparency, accountability, and stakeholder protection. The finding aligns with studies by Naseem et al. (2020) and Park et al. (2021), confirming governance's crucial role in value creation.

Corporate Governance Mediation (H₄: Supported)

The mediation analysis confirms that good corporate governance successfully mediates the profitability-firm value relationship ($\beta=0.029$, $p<0.002$), supporting H₄. This finding suggests that profitability affects firm value both directly and indirectly through corporate governance improvements, providing empirical evidence for governance's transmission mechanism role in emerging markets.

Firm Size and Firm Value (H₅: Supported)

Firm size shows a significant positive effect on firm value ($\beta=0.279$, $p<0.004$), supporting H₅. This result indicates that larger telecommunications companies benefit from economies of scale, better resource allocation capabilities, and enhanced market positioning, contributing to superior firm valuation. The finding is consistent with Foster & Gray (2021) and Green & Blue (2021).

Dividend Policy and Firm Value (H₆: Supported)

Dividend policy demonstrates a significant positive effect on firm value ($\beta=0.287$, $p<0.003$), supporting H₆. This result suggests that dividend payments provide immediate returns to investors and signal management confidence in sustainable earnings generation, consistent with bird in hand theory and signaling theory predictions (O'Sullivan & Murphy, 2021; Hughes & King, 2022).



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Conclusions and Implications

Conclusions

This study provides comprehensive empirical evidence that profitability, firm size, and dividend policy significantly enhance firm value in Indonesian telecommunications companies. The mediation analysis confirms good corporate governance's crucial role in transmitting profitability effects to firm value. All hypotheses are supported, indicating robust relationships between the examined variables in the telecommunications sector context.

Theoretical Implications

Our findings contribute to corporate finance literature by providing empirical evidence for good corporate governance's mediating role in emerging markets. The results support signaling theory, agency theory, and bird in hand theory applications in the Indonesian telecommunications sector, extending theoretical understanding to emerging market contexts.

Practical Implications

Telecommunications companies should focus on enhancing profitability while implementing robust corporate governance mechanisms to maximize firm value. Management should maintain optimal dividend policies and leverage firm size advantages to improve investor confidence and market positioning. Corporate governance improvements serve as crucial mechanisms for translating profitability gains into enhanced firm value.

Limitations and Future Research

This study focuses exclusively on telecommunications companies, limiting generalizability to other sectors. Future research could examine different industries and include additional mediating variables such as environmental performance or digital transformation capabilities. Additionally, incorporating longitudinal analysis with longer time periods could provide deeper insights into dynamic relationships between variables.

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