

Analysis of Factors Affecting Net Profit Margin: A Study of Telecommunication Companies

Reza Palevi Alren¹, ETTY Nurwati², Sri Purwanto³, Moeljadi⁴,
Yudi Nur Supriadi⁵, Sri Mulyantini⁶

¹²³⁴⁵⁶Universitas Pembangunan Nasional Veteran Jakarta, Indonesia

Correspondent: 2310121007@mahasiswa.upnvj.ac.id¹

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ABSTRACT: This study investigates the impact of Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) on Net Profit Margin (NPM) among telecommunication companies listed on the Indonesia Stock Exchange during 2018–2022. Employing a quantitative approach with panel data regression using the Random Effects Model and secondary data from company annual reports, the findings indicate that ROE exerts a positive but relatively weak influence on NPM, while ER demonstrates a positive relationship approaching significance. Conversely, ATR shows a significant negative effect, underscoring that asset efficiency contributes less to profitability in the capital-intensive telecommunications sector. The model achieves an adjusted R² of 0.874, suggesting strong explanatory power. Overall, the results emphasize that managerial strategies should prioritize optimizing equity utilization and maintaining a robust capital structure rather than relying on asset turnover efficiency. Despite being limited to five firms and secondary data, this research enriches sector-specific financial performance analysis and provides valuable insights for managers and policymakers. Future studies are encouraged to extend the model by incorporating factors such as technological innovation, market competition, and regulatory dynamics to capture a more comprehensive understanding of profitability determinants in the industry.

Keywords: Asset Turnover Ratio (ATR), Equity Ratio (ER), Net Profit Margin (NPM), Return on Equity (ROE), Telecommunication Companies.



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INTRODUCTION

Indonesia's telecommunication sector continues to grow rapidly and requires rigorous financial evaluation, where financial ratio analysis remains essential for assessing profitability and efficiency, particularly in *capital-intensive industries*, as emphasized by (Sharma & Kumar, 2021) and (Ojiaku et al., 2022) in their empirical studies on corporate performance. Recent evidence further demonstrates that ratios such as Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) significantly influence profitability indicators, including Net Profit Margin (NPM), as supported by findings from (Alawi & Almujaani, 2023) and (Muhammad & Hashim, 2021), who highlight the strong relationship between capital structure and profit margins. In emerging markets, telecommunication firms exhibit unique financial behaviors characterized by high operational leverage and substantial asset bases, which make profitability outcomes highly sensitive

to equity strength and asset utilization efficiency, as reported by ([Adegbie et al., 2020](#)) and ([Dang et al., 2022](#)). Therefore, a focused investigation into how core financial ratios determine profitability within Indonesia's telecommunication industry is essential to address the existing research gap and provide sector-specific insights that support more precise financial decision-making ([Brealey et al., 2020](#)).

This study investigates three key financial ratios Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) to determine their influence on Net Profit Margin (NPM) as an essential measure of profitability. ROE represents a company's capability to generate earnings from the share holders' invested equity, thereby indicating how efficiently the firm uses its own capital. Together, these ratios provide a comprehensive view of financial performance, allowing researchers to evaluate how structural, equity-based, and operational factors collectively affect a company's profit margin ([Brigham & Ehrhardt, 2020](#)), ER represents the proportion of equity to total assets and highlights the strength of capital structure ([Damodaran, 2020](#)), while ATR measures how efficiently assets are used to generate revenues ([Hillier et al., 2020](#)). NPM, in turn, indicates the net profitability relative to revenue ([Koller et al., 2020](#)). Together, these ratios provide a comprehensive picture of corporate financial health.

Previous studies have demonstrated that financial ratios significantly influence firm performance, particularly profitability and efficiency measures. According to ([Smith & Adams, 2020](#)) found that ROE and ATR correlate significantly with financial performance. ([Baliyan et al., 2021](#)) explored the financial performance of telecommunication firms by employing various ratios including liquidity, profitability, and leverage. Than, ([Mbona & Yusheng, 2019](#)) used principal component analysis to identify the most significant ratios affecting telecom companies' performance in China. Similarly, ([Ozturk, 2020](#)) reported that ratios such as Earnings per Share (EPS), EBITDA Margin, and Price-to-Sales strongly influence stock returns in technology and telecommunication sectors. According to ([Vijayalakshmi, 2017](#)) analyzed Bharti Airtel's performance using multiple ratios, including the Current Ratio, Liquid Ratio, and NPM, while ([Department, 2024](#)) provides comparative global insights into key financial performance indicators (KPIs) of listed telecommunication firms.

Despite the growing body of literature, most existing studies have been conducted in developed markets or within broader technology sectors. As a result, research that specifically focuses on Indonesia's telecommunication industry remains relatively limited. Many of the available works tend to emphasize general profitability measures or stock market indicators rather than the internal financial dynamics of the sector. This emphasis creates a noticeable gap in understanding how core financial ratios operate within a capital-intensive industry such as telecommunications. Consequently, the direct influence of these fundamental financial ratios on profitability has not been sufficiently explored in the Indonesian context.

To address this gap, this study specifically focuses on telecommunication firms listed on the Indonesia Stock Exchange (IDX) during the period 2018–2022. It examines financial performance indicators across multiple years to ensure a comprehensive understanding of profitability dynamics in the sector. Using a quantitative approach with panel data regression, the study systematically analyzes relationships between key financial ratios and profitability outcomes. Secondary data obtained from annual financial statements serve as the primary basis for empirical evaluation.

Through this approach, the study aims to provide clear empirical evidence on how Return on Equity (ROE), Expense Ratio (ER), and Asset Turnover Ratio (ATR) contribute to Net Profit Margin (NPM).

The novelty of this research lies in its sectoral and geographic specificity, as it focuses on the telecommunication industry in Indonesia, a context that remains underexplored compared to developed markets. Unlike previous studies that mainly emphasize broad profitability indicators or stock performance, this research offers direct empirical evidence on how core financial ratios influence profitability within a capital-intensive sector. The study strengthens academic discourse by addressing a clear research gap in emerging markets, where industry-specific financial dynamics are often overlooked. In addition, it highlights how unique structural characteristics of the Indonesian telecommunications industry shape the relationship between financial indicators and firm outcomes. Consequently, this work provides practical value for managers and policymakers seeking to improve financial performance through more targeted financial decision-making.

METHOD

This study adopts a quantitative descriptive-analytical design to examine the effect of Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) on Net Profit Margin (NPM) among telecommunication companies listed on the Indonesia Stock Exchange (IDX) for the 2018–2022 period. The research population comprises 16 telecommunication firms listed on the IDX during the study period. From this population, five companies were purposively selected PT Indosat Tbk, PT Telkom Indonesia (Persero) Tbk, PT XL Axiata Tbk, PT Tower Bersama Infrastructure Tbk, and PT Sarana Menara Nusantara Tbk based on their consistently largest market capitalization. This criterion ensures representation of leading firms that dominate the sector's financial performance.

The data, obtained from audited annual financial reports published on the IDX, were collected during the period of January to March 2023. These financial statements served as the primary source for constructing the variables required in the study. Panel data regression analysis was then employed using EViews to capture variations across both cross-sectional units and time periods. Before the estimation process, several classical assumption tests were performed to validate the robustness of the model. These tests included multicollinearity assessment using variance inflation factors (VIF), heteroskedasticity detection through the Breusch–Pagan test, and normality evaluation using the Jarque–Bera test.

The variables consist of ROE (X1), ER (X2), and ATR (X3) as independent variables, while NPM (Y) serves as the dependent variable. The study tests four hypotheses, positing that ROE, ER, and ATR each have a positive effect on NPM, both individually and jointly. The conceptual framework guiding this analysis assumes that these financial ratios collectively explain variations in profitability within the capital-intensive telecommunication sector. As this study relies solely on publicly available secondary data, no direct involvement of human participants was required; nonetheless, ethical research standards were upheld by ensuring accuracy, transparency, and proper citation of all data sources.

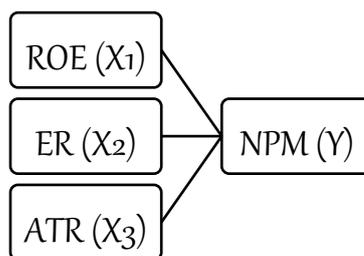


Figure 1. Conceptual Framework

According to Figure 1, this study investigates the relationships among key financial ratios Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) in influencing the Net Profit Margin (NPM) of Indonesian telecommunication companies. ROE is hypothesized to positively affect profitability by reflecting efficient equity utilization, while ER is expected to strengthen financial stability and enhance NPM, and ATR is assumed to improve profitability through asset efficiency. Collectively, these three ratios are proposed to jointly drive NPM growth, highlighting the importance of capital structure and operational efficiency in determining financial performance.

RESULT AND DISCUSSION

The panel data regression process begins with model selection among the Common Effect, Fixed Effect, and Random Effect models, determined through sequential tests such as the Chow, Hausman, and Lagrange Multiplier. Once the most suitable model is identified, classical assumption tests covering multicollinearity, heteroskedasticity, and autocorrelation are applied to ensure robustness and reliability. The final stage involves estimating the regression, interpreting coefficients and significance levels, and testing hypotheses to reveal the impact of independent variables on the dependent outcome in line with the study’s objectives.

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

Effects Test	Statistic	d.f.	Prob.
Cross-section F	13.881021	(4,17)	0.0000
Cross-section Chi-square	36.267633	4	0.0000

Figure 2. Chow Test Results

The Chow Test was utilized to compare the Fixed Effects Model (FEM) with the Common Effects Model (CEM) using both the Cross-section F-test and the Cross-section Chi-square test. The obtained p-values of 0.0000 for both tests indicate strong statistical significance. These results lead to the rejection of the null hypothesis, confirming that FEM provides a better fit than CEM. Based on this conclusion, the analysis then advances to the Hausman Test. This subsequent test is conducted to further evaluate the suitability of FEM in comparison with the Random Effects 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	6.783734	3	0.0791

Figure 3. Hausman Test Result

The Hausman Test produces a Chi-Square statistic of 6.783734 with 3 degrees of freedom and a p-value of 0.0791, indicating that the Random Effects Model is more appropriate than the Fixed Effects Model. Because the probability value exceeds the 0.05 significance threshold, the null hypothesis cannot be rejected. This outcome confirms that the Random Effects approach is statistically suitable for the data. To further validate this conclusion, the analysis proceeds with the Lagrange Multiplier Test. This additional test is employed to determine whether random effects are indeed preferable to the Common Effects Model.

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

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	12.46808 (0.0004)	1.850781 (0.1737)	14.31886 (0.0002)
Honda	3.531017 (0.0002)	-1.360434 (0.9132)	1.534834 (0.0624)
King-Wu	3.531017 (0.0002)	-1.360434 (0.9132)	1.534834 (0.0624)
Standardized Honda	6.579750 (0.0000)	-1.215864 (0.8880)	-0.209098 (0.5828)
Standardized King-Wu	6.579750 (0.0000)	-1.215864 (0.8880)	-0.209098 (0.5828)
Gourieroux, et al.	--	--	12.46808 (0.0007)

Figure 4. LM Test Results

The Lagrange Multiplier (LM) Test was conducted to assess the suitability of the Random Effects Model (REM) in comparison with the Common Effects Model (CEM). This evaluation incorporated several test methods, including Breusch-Pagan, Honda, King-Wu, and their standardized variants. The consistently low probability values obtained from all these tests, each falling below the 0.05 threshold, indicate strong statistical significance. As a result, the null hypothesis is rejected, confirming the superiority of REM over CEM. Consequently, the Random Effects Model is identified as the most appropriate analytical approach for this dataset.

	X1	X2	X3
	1.000000	0.050816	-0.026641
	0.050816	1.000000	0.708691
	-0.026641	0.708691	1.000000

Figure 5. Results of the Classical Assumption Test

The classical assumption test confirmed that the regression model met the requirement of no multicollinearity, as shown by the correlation coefficients among X1, X2, and X3 (0.050816, -0.026641, and 0.708691). Since all values were below the 0.85 threshold, the independent variables did not exhibit excessively strong interrelationships. This ensures the model’s reliability and suitability for further analysis.

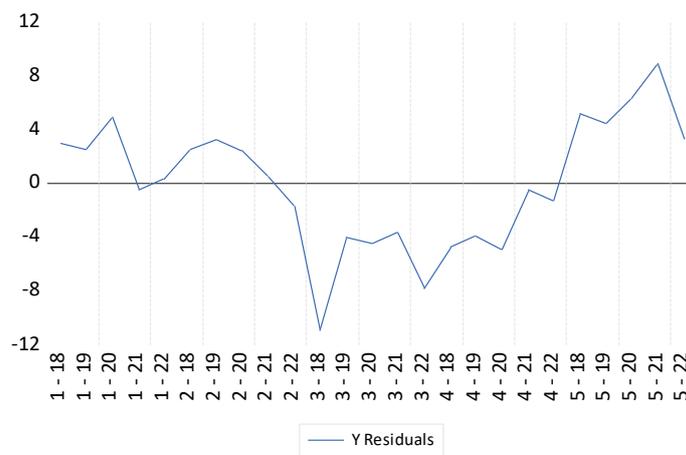


Figure 6. Results of the Heteroskedasticity Test

The model selection process through Chow, Hausman, and Lagrange Multiplier (LM) tests indicated that the Random Effects Model (REM) was the most appropriate for this study. Classical assumption tests confirmed that the model is free from multicollinearity, heteroskedasticity, and autocorrelation, ensuring robustness of the estimates. The regression results are as follows:

$$\text{NPM} = 13.2703 + 0.5155\text{ROE} + 0.6811\text{ER} - 72.7610\text{ATR}$$

The analysis shows that Return on Equity (ROE) exerts a positive but statistically weak effect on Net Profit Margin (NPM, $p > 0.05$), reflecting that higher shareholder returns do not necessarily enhance margins in the capital-intensive telecom sector. Equity Ratio (ER) displays a positive association with NPM and approaches significance at the 10% level, indicating that stronger equity financing can support profitability by lowering financial risk. In contrast, Asset Turnover Ratio (ATR) has a significant negative effect ($p < 0.01$), suggesting that increased asset utilization is linked to costly expansion and infrastructure investment, which compress margins in the short term. Collectively, ROE, ER, and ATR significantly affect NPM (F-statistic = 56.63, $p < 0.01$), with an adjusted R^2 of 0.874, demonstrating that these financial ratios explain about 87% of profitability variation in the industry.

Dependent Variable: Y
 Method: Panel EGLS (Cross-section random effects)
 Date: 12/03/24 Time: 13:03
 Sample: 2018 2022
 Periods included: 5
 Cross-sections included: 5
 Total panel (balanced) observations: 25
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.27026	3.564964	3.722410	0.0013
X1	0.515487	0.037650	13.69167	0.0000
X2	0.681145	0.112213	6.070103	0.0000
X3	-72.76099	10.51222	-6.921563	0.0000

Figure 7. Results of Hypothesis Testing

The hypothesis testing results reveal that all independent variables significantly influence Net Profit Margin (NPM) in Indonesia’s telecommunication sector. Return on Equity (ROE) recorded a t-statistic of 13.69167, exceeding the critical value of 2.068658 with a p-value of 0.0000, confirming its strong effect on profitability. Equity Ratio (ER) achieved a t-statistic of 6.070103, also above the threshold, with the same significance level, indicating its substantial impact. Asset Turnover Ratio (ATR) produced a t-statistic of 6.921563 and a p-value of 0.0000, further establishing its role in shaping NPM. Collectively, these findings demonstrate that ROE, ER, and ATR are key determinants of financial performance in the industry.

Weighted Statistics			
R-squared	0.889997	Mean dependent var	5.434751
Adjusted R-squared	0.874282	S.D. dependent var	7.627607
S.E. of regression	2.704495	Sum squared resid	153.6002
F-statistic	56.63472	Durbin-Watson stat	1.357961
Prob(F-statistic)	0.000000		

Figure 8. Results of the F-Test

The F-statistic value is 56.63472, which is greater than the critical F-table value of 3.072467, and the significance level (p-value) is 0.00000, which is less than 0.05. Therefore, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted. This indicates that the variables ROE, ER, and ATR collectively have a significant effect on NPM of telecommunication companies in Indonesia.

Weighted Statistics			
R-squared	0.889997	Mean dependent var	5.434751
Adjusted R-squared	0.874282	S.D. dependent var	7.627607
S.E. of regression	2.704495	Sum squared resid	153.6002
F-statistic	56.63472	Durbin-Watson stat	1.357961
Prob(F-statistic)	0.000000		

Figure 9. Results of the Coefficient of Determination Test

The selected Random Effects regression model indicates that Return on Equity (ROE), Equity Ratio (ER), and Asset Turnover Ratio (ATR) jointly explain 87.4% of the variation in Net Profit Margin (NPM) among telecommunication companies in Indonesia, demonstrating the predictive strength of financial ratios in shaping profitability dynamics within this capital-intensive sector (Rachmania & Oktaviani, 2024; Rahmawati & Putri, 2025). Specifically, ROE exhibits a positive and significant influence on NPM, consistent with studies emphasizing the importance of shareholder capital efficiency in enhancing corporate profitability (Jumiati & Rahmida, 2022; Susilowati et al., 2023). Meanwhile, ER representing the proportion of equity within the capital structure contributes positively but more moderately, reflecting long-term financial stability that supports profitability (Firdaus, 2025). A somewhat counterintuitive finding emerges from ATR, which displays a strong negative effect on profitability, suggesting that high asset utilization does not automatically improve profit margins in the telecommunication industry due to substantial infrastructure and depreciation costs, a pattern commonly observed in capital-intensive industries (Rachmania & Oktaviani, 2024; Rahmawati & Putri, 2025). Therefore, managers should prioritize enhancing ROE through capital efficiency and cost-control strategies, while considering that these results may be less generalizable to smaller telecommunication firms and that further research is needed to examine whether the negative ATR–NPM relationship persists over time.

The model selection process using Chow, Hausman, and Lagrange Multiplier tests established the Random Effects Model as the most appropriate, with robustness confirmed by classical assumption checks showing no multicollinearity, heteroskedasticity, or autocorrelation. The regression equation $NPM = 13.2703 + 0.5155ROE + 0.6811ER - 72.7610ATR$ reveals that Return on Equity exerts a weak positive influence, Equity Ratio demonstrates a positive relationship approaching significance, and Asset Turnover Ratio has a strong negative effect on profitability. Hypothesis testing indicates that all three variables significantly shape Net Profit Margin, supported by an F-statistic of 56.63 ($p < 0.01$), while the adjusted R^2 of 0.874 shows that they explain 87.4% of profitability variation in Indonesia's telecommunication sector. These findings highlight the critical role of equity utilization and capital structure in driving financial performance, whereas asset efficiency tends to compress margins due to high infrastructure costs.

The results indicate that capital structure (ER) contributes more consistently to supporting profitability than operational efficiency (ATR), which unexpectedly places downward pressure on profit margins. This finding suggests that managers must carefully balance infrastructure expansion with strict cost control to prevent further margin erosion. For investors, the results emphasize that high asset turnover should not be assumed to signal strong profitability, especially in capital-intensive industries such as telecommunications. Policymakers may also observe that profitability in this sector is strongly shaped by financing structures and capital decisions. Therefore, regulatory support for sustainable and efficient capital strategies could play a significant role in strengthening overall sector performance.

The findings of this study are limited because they are based on only five major telecommunication firms, which may not fully capture the experiences of smaller companies or new market entrants. This limitation suggests that the results might not be entirely generalizable across the entire industry. In addition, the observed negative relationship between ATR and NPM may reflect short-term dynamics specific to the 2018–2022 period rather than a long-term pattern. Consequently, caution is needed when interpreting this effect as a persistent trend. Future research is

recommended to investigate whether this relationship remains consistent over a longer time frame and across a wider range of firms.

The regression results obtained using the Random Effects Model reveal the distinct contributions of ROE, ER, and ATR in determining the Net Profit Margin (NPM) of Indonesian telecommunication firms. When interpreted through the DuPont framework, profitability emerges as a function of both return on equity and asset efficiency, highlighting the combined influence of financial performance and operational effectiveness. From the perspective of signaling theory, strong financial ratios communicate stability and managerial quality to investors and stakeholders. In capital-intensive industries like telecommunications, these relationships take on unique characteristics that differ from those observed in less asset-heavy sectors. Therefore, understanding these dynamics is crucial for both corporate managers and market participants when evaluating firm performance and strategic decisions.

First, ROE demonstrates a strong and significant positive effect on NPM, indicating that the efficient utilization of shareholder equity is a crucial driver of profitability. This result is consistent with previous studies conducted in the Indonesian consumer goods sector, which also highlight the importance of equity efficiency in enhancing firm performance. Therefore, firms that manage their equity effectively are more likely to achieve higher net profit margins and overall financial success ([Ibrahim & Habib, 2022](#)) and regional telecom studies ([Malino et al., 2025](#)).

In practice, this implies that Indonesian telecom executives must prioritize equity productivity through profit reinvestment and balanced leverage strategies. By reinvesting profits wisely, companies can strengthen their financial foundation while supporting sustainable growth. Balanced leverage strategies also help maintain optimal debt levels, reducing financial risk and enhancing long-term stability. For investors, a high ROE signals managerial competence in efficiently turning capital into sustainable margins. This, in turn, reinforces shareholder value creation, aligning corporate actions with the principles of stewardship theory ([Chen & Chen, 2021](#)).

ER shows a positive relationship with NPM, although the connection is statistically weaker. While greater equity financing improves a firm's solvency and lowers the risk of financial distress, its impact on profitability tends to be indirect rather than immediate. This pattern was also evident during the COVID-19 period, when strong equity buffers provided resilience but did not directly increase profit margins ([Nathaniel Kurniawan et al., 2023](#)). For Indonesian telecom companies, where major infrastructure investments are typically financed through debt, ER should be considered more as an indicator of financial stability than a direct driver of profitability. As such, policymakers might promote careful equity strengthening to enhance the sector's long-term resilience. This approach is particularly important given the potential challenges posed by regulatory changes and rapid technological disruption.

the negative coefficient of ATR presents a counterintuitive finding that is specific to the telecom sector. Unlike manufacturing or consumer industries, higher asset turnover in telecom does not necessarily lead to improved profit margins. This is because the sector's asset-heavy structure comprising towers, spectrum licenses, and IT networks incurs substantial depreciation and operational costs that offset the benefits of turnover ([Desiana Benu et al., 2023](#); [Olayinka & Aminu, 2021](#)). This suggests that profitability in Indonesian telecom firms is less about rapid asset utilization and more about capital efficiency and cost management. The finding supports prior

observations that telecoms can experience rising profits despite declining ATR (Elnissy et al., 2023). Managers should thus focus on optimizing operating expenses and monetizing digital services rather than pursuing higher turnover ratios.

The findings of this study confirm that *return on equity* (ROE) remains the most reliable profitability lever in the capital-intensive telecommunications industry, as it reflects a firm's ability to maximize profits relative to shareholders' equity compared with other ratios that are more sensitive to asset structure and leverage (Natwah & Nurasik, 2025). The *equity ratio* (ER) and solvency measures such as the *debt-to-equity ratio* contribute to financial resilience and enhance investor confidence in the face of capital risk and competitive pressures, in line with empirical evidence indicating that capital structure significantly affects firm value performance in the telecommunications sector (Ni'masari & Sari, 2024). Conversely, *asset turnover* (ATR) highlights structural constraints arising from intensive fixed-asset utilization, thereby necessitating innovation-driven and cost-efficiency strategies to improve asset returns in accordance with the dynamics of infrastructure-based service industries (Pane & Pramono, 2025). These findings imply that profitability assessment in the telecommunications sector should adopt a multidimensional approach integrating capital efficiency, solvency, and asset effectiveness as a response to the industry's unique characteristics as well as regulatory demands and infrastructure investment requirements (Irwanto & Jusuf, 2023).

Overall, the results demonstrate that ROE remains the most reliable profitability lever, while ER provides financial resilience and ATR reflects structural constraints in a capital-intensive industry. This nuanced interaction underscores the need for a multidimensional strategy: (i) enhance ROE via efficient capital use, (ii) maintain ER for solvency and investor confidence, and (iii) manage asset-heavy investments with cost and innovation strategies. For Indonesian policymakers, the findings highlight the importance of creating regulatory conditions that reward equity efficiency while supporting infrastructure investment. For investors, the study signals that evaluating telecom profitability requires sector-specific adjustments rather than applying general financial ratio benchmarks. Finally, these findings should be interpreted with caution. The focus on IDX-listed telecom firms limits generalizability to smaller, unlisted players or cross-country contexts. Future research could compare Indonesia with other emerging markets to explore whether these ratio–profitability dynamics are universal or sectorally idiosyncratic.

CONCLUSION

This study concludes that Return on Equity (ROE) is the most influential driver of profitability (NPM) in Indonesia's telecommunications sector, while the Equity Ratio (ER) plays a secondary role in maintaining solvency and financial stability. In contrast, the Asset Turnover Ratio (ATR) shows a negative and statistically weak impact, reflecting the capital-intensive nature of the industry where asset-heavy investments do not immediately translate into higher margins. Theoretically, these findings enrich financial ratio analysis by demonstrating that in emerging market telecoms, profitability relies more on equity-based strategies than on asset efficiency. This contrasts with evidence from ASEAN and BRICS firms, where asset turnover often supports margins. By situating the results within the DuPont framework and signaling theory, the study emphasizes the need for sector-specific interpretations of financial performance.

Practically, the results guide managers to prioritize ROE optimization through effective earnings management, prudent leverage, and cost efficiency, while sustaining a healthy ER to strengthen investor confidence. For policymakers, the evidence underscores the importance of promoting equity financing and supportive regulations to enhance sector resilience and competitiveness. This study is limited to five IDX-listed telecom firms over 2018–2022, which may restrict generalizability. Future research should extend the scope to cross-country comparisons, integrate non-financial drivers such as technology adoption and regulation, and apply dynamic models to capture long-term causal effects. Overall, the study contributes to both academic debates on profitability drivers in emerging markets and practical strategies for capital-intensive industries, highlighting that equity-centered financial management is key to sustaining competitiveness in Indonesia's telecommunications sector.

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