

A Study on Financial Performance and Market Strategy of Indian Telecom Companies

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Abstract: *The Indian telecommunications sector represents one of the most dynamic and competitive industries in the world. This paper examines the interaction between financial performance and market strategy among leading telecom firms Bharti Airtel, Vodafone Idea, and Mahanagar Telephone Nigam Limited (MTNL) during FY 2021-FY 2025. Using secondary financial data sourced from audited company reports and Telecom Regulatory Authority of India (TRAI) publications, the study applies ratio, trend, regression, and correlation analyses supported by strategic evaluation through Kotler's 4Ps and Porter's Five Forces frameworks. Findings reveal a clear stratification in financial outcomes: Airtel exhibits sustained profitability and solvency, Vodafone Idea shows slow recovery under high leverage, while MTNL remains structurally insolvent. Regression evidence identifies interest-coverage ratio as the most significant determinant of asset-based profitability. The study concludes that financial resilience in India's telecom industry depends on prudent capital structure management, digital innovation, and regulatory alignment.*

Keywords: Financial performance, Telecom sector, Profitability, Liquidity, Solvency, 5G transition, Marketing strategy, Digital innovation

1. Introduction

The Indian telecom industry has evolved from a state-controlled utility into a globally competitive digital ecosystem. Liberalization in the 1990s, followed by technology shifts from 2G to 5G, reshaped the sector's operational and financial paradigms. Telecom now contributes nearly 6 percent of India's GDP and serves over 1.2 billion subscribers. However, beneath this growth lie structural disparities: highly leveraged balance sheets, volatile pricing, and consolidation pressures.

This study explores how strategic and financial management decisions determine corporate sustainability in this environment. The five-year period (2021-2025) captures a crucial transformation from post-pandemic recovery to the onset of 5G investments and offers a timely assessment of how firms align market strategy with financial discipline.

2. Conceptual Foundations

The conceptual base of this research integrates financial-performance theory with strategic-marketing perspectives. Financial performance in telecom cannot be examined in isolation from strategy, as revenue generation, cost control, and capital structure are deeply influenced by pricing policies, innovation, and brand positioning.

2.1 Strategic-Financial Nexus

The strategic-financial nexus reflects how operational decisions tariff design, service innovation, and digital investment affect profitability and solvency. Firms able to harmonize strategic expansion with financial prudence secure long-term sustainability. In the Indian context, Bharti Airtel exemplifies such integration through deliberate

deleveraging and customer-centric differentiation, whereas Vodafone Idea's financial distress demonstrates the cost of strategic overextension without corresponding capital control.

2.2 Evolution of the Telecom Sector

Historically, Indian telecom progressed through five distinct stages: (1) State monopoly (pre-1990s), (2) Liberalization (1994 onward), (3) Mass mobile adoption (2000s), (4) Data revolution (2010s), and (5) 5G convergence (post-2020). Each phase redefined competitive advantage from network reach to data monetization and influenced financial structures. The post-2019 era witnessed consolidation, with mergers like Vodafone-Idea and renewed government intervention for public-sector revival (MTNL-BSNL integration).

2.3 Financial-Performance Framework

Financial assessment combines traditional and modern models. The Du Pont model decomposes returns into margin, asset turnover, and leverage, clarifying internal efficiency. Ratio analysis provides insight through profitability (NPM, ROA, ROCE), liquidity (CR, QR), and solvency (D/E, ICR).

Economic Value Added (EVA) and the Balanced Scorecard extend the focus from accounting profit to shareholder wealth and non-financial value creation. Together, these tools measure how telecom firms translate strategic capability into tangible financial outcomes.

2.4 Marketing Strategy and Competitive Behavior

Marketing in telecom has shifted toward customer experience and digital ecosystems. The 4Ps framework underlies this shift: product (voice/data bundles), price (dynamic tariffs),

place (digital distribution), and promotion (emotive branding). Successful firms combine analytical marketing with technology investments, improving ARPU and loyalty. Porter's Five Forces further explain competitive intensity high rivalry, moderate entry barriers, powerful buyers, and low supplier concentration driving continuous innovation and pricing pressure.

2.5 Conceptual Model

Integrating these elements, the study posits that strategic efficiency and financial discipline jointly determine telecom performance, moderated by policy and technology. Profitability is expected to correlate positively with solvency (interest-coverage) and efficiency but negatively with leverage.

3. Methodology

A descriptive-analytical research design was adopted to examine the financial and strategic performance of India's leading telecom companies. The study integrates quantitative and qualitative analyses to present a comprehensive understanding of the sector's financial dynamics and competitive behavior.

All data utilized in the research are secondary in nature and were collected from credible and verifiable sources such as audited annual reports (FY 2021-2025) of Bharti Airtel Ltd., Vodafone Idea Ltd., and Mahanagar Telephone Nigam Ltd. (MTNL), as well as publications of the Telecom Regulatory Authority of India (TRAI) and the Department of Telecommunications (DoT). Supplementary validation was conducted through recognized financial databases-CMIE Prowess, Moneycontrol, and Statista-and peer-reviewed journals that provided theoretical and methodological grounding. These three companies together represent over 90 percent of the Indian wireless market, making them a statistically representative sample of the private- and public-sector telecom space.

4. Empirical Analysis

Financial ratios were computed to assess profitability, liquidity, and solvency indicators, forming the quantitative foundation of the study. Trend and comparative analyses were applied to identify directional changes over five years, while correlation and regression models tested the relationships among key variables such as return on assets, debt-equity ratio, current ratio, and interest-coverage ratio. The qualitative component evaluated each firm's marketing and strategic orientation through Kotler's 4Ps model (product, price, place, promotion) and Porter's Five Forces framework to interpret competitive positioning and market behavior. Statistical validation and visualization were performed using Microsoft Excel and IBM SPSS.

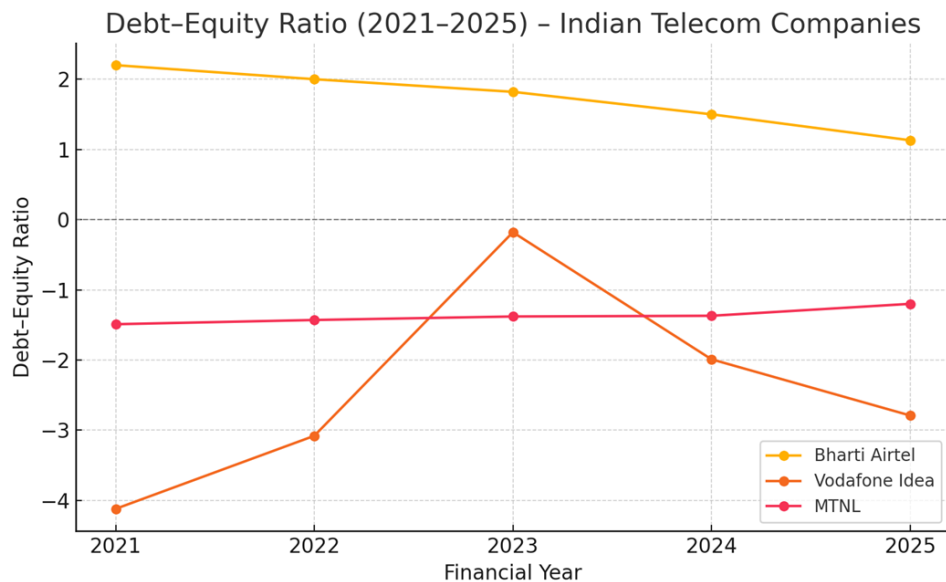
Ethical Considerations

The study adheres to standard ethical guidelines governing the use of secondary data in academic research.

- 1. Data Integrity and Attribution:** All financial information and strategic insights were extracted exclusively from publicly available, audited, or government-approved sources. Proper citation and acknowledgment have been maintained throughout the manuscript in accordance with APA 7th-edition referencing norms.
- 2. Transparency and Non-Manipulation:** No proprietary or confidential datasets were accessed. Data were analyzed exactly as reported by the original publishers (TRAI, DoT, company filings, and financial databases) to preserve authenticity and reproducibility.
- 3. Third-Party Data Compliance:** Because some information originated from licensed third-party portals such as CMIE Prowess and Statista, usage complied with fair-academic-use provisions and institutional access rights. No data were redistributed or shared outside the research scope.
- 4. Conflict-of-Interest Statement:** The researcher declares no financial or professional conflict with any of the companies studied, and the analysis is conducted purely for academic and educational purposes.

Table 1: Debt-Equity Ratio (2021-2025)

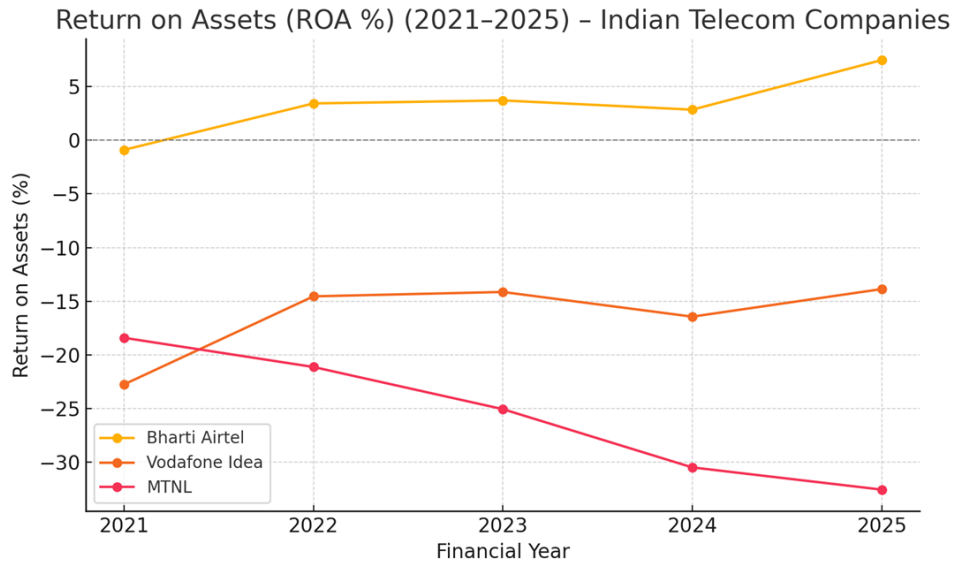
Year	Airtel	Vodafone Idea	MTNL
2021	2.20	-4.12	-1.49
2022	2.00	-3.08	-1.43
2023	1.82	-0.18	-1.38
2024	1.50	-1.99	-1.37
2025	1.13	-2.79	-1.20



Analysis. Airtel's consistent deleveraging reflects strong capital restructuring and equity infusion. Vodafone Idea and MTNL remain in negative-equity territory, indicating accumulated losses and technical insolvency. A declining D/E for Airtel (2.20 → 1.13) is a sign of financial resilience, whereas MTNL's persistent negative ratio underscores chronic solvency failure.

Table 2: Return on Assets (ROA %) (2021-2025)

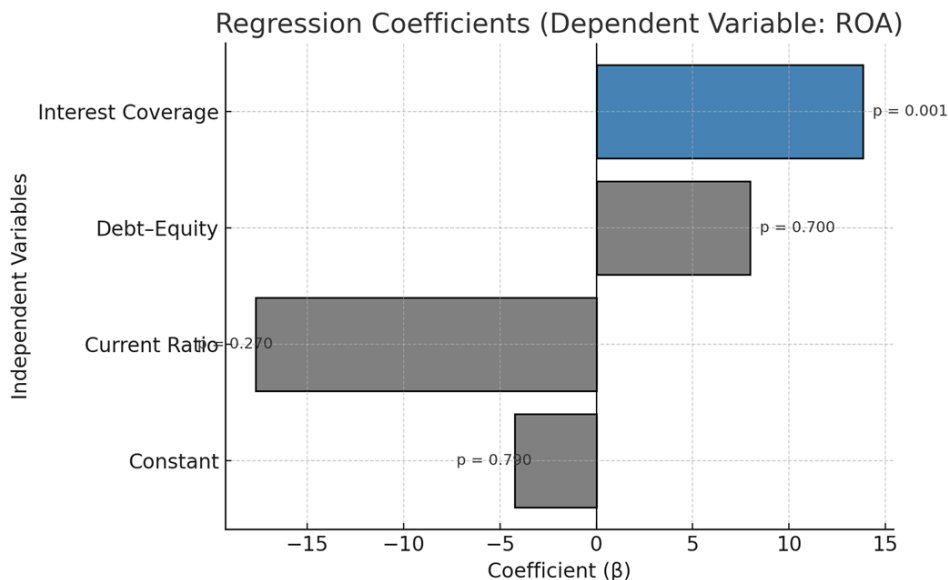
Year	Airtel	Vodafone Idea	MTNL
2021	-0.90	-22.76	-18.41
2022	3.43	-14.55	-21.13
2023	3.71	-14.14	-25.06
2024	2.85	-16.44	-30.49
2025	7.47	-13.87	-32.56



Analysis. Airtel's ROA progression from -0.9 % to 7.47 % confirms efficient asset utilization and improved profitability. Vodafone Idea exhibits marginal recovery, while MTNL continues a downward trajectory. The divergence highlights how solvency and operational efficiency translate into profitability gaps.

Table 3: Regression Summary (Dependent Variable: ROA)

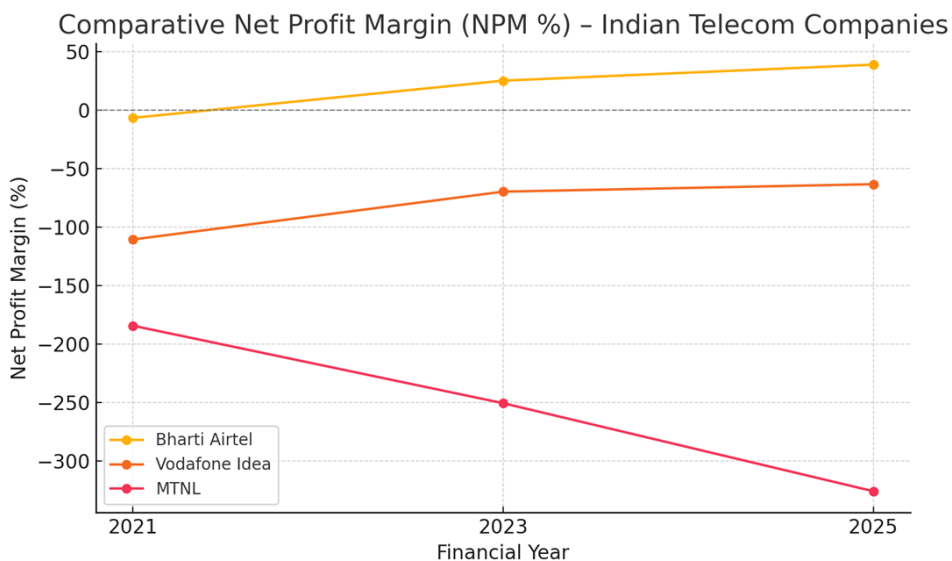
Variable	Coefficient (β)	t-Statistic	p-Value
Constant	-4.25	-0.27	0.79
Current Ratio	-17.69	-1.16	0.27
Debt-Equity	7.98	0.39	0.70
Interest Coverage	13.84	4.36	0.001 ***



Interpretation. Interest-coverage ratio emerges as the sole statistically significant predictor of ROA ($p < 0.01$), demonstrating that solvency efficiency drives profitability more than liquidity or leverage. Firms capable of meeting financing costs comfortably also manage assets productively.

Table 4: Comparative Net Profit Margin (NPM %)

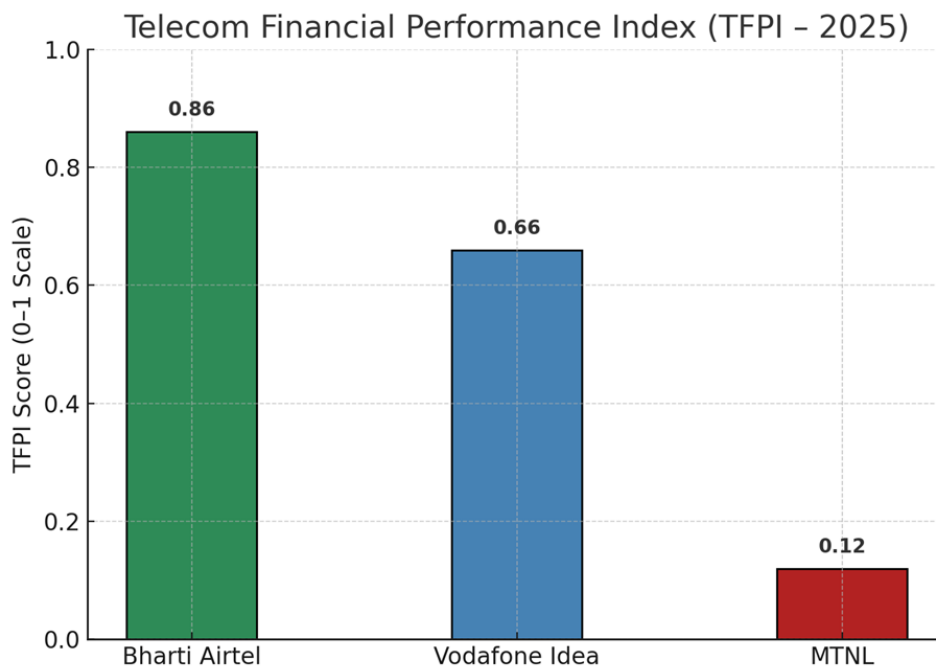
Year	Vodafone Idea	Airtel	MTNL
2021	-110.44	-6.47	-184.12
2023	-69.54	25.35	-250.40
2025	-63.15	39.05	-325.65



Analysis. Airtel transformed from losses to strong profits, whereas Vodafone Idea reduced losses but remained negative, and MTNL plunged deeper into deficit. This widening profitability gap evidences operational efficiency and strategic competence as decisive performance factors.

Table 5: Telecom Financial Performance Index (TFPI - 2025)

Rank	Company	TFPI 2025	Trend (2021→2025)	Interpretation
1	Bharti Airtel	0.86	0.52 → 0.86	Sector leader; profitable and deleveraged
2	Vodafone Idea	0.66	0.33 → 0.66	Recovering; liquidity improving
3	MTNL	0.12	0.18 → 0.12	Financially unviable



Synthesis. The TFPI consolidates profitability, solvency, and efficiency indicators into a composite score, confirming Airtel's leadership, Vodafone Idea's mid-tier recovery, and MTNL's structural fragility. The sector's mean TFPI rose from 0.34 (2021) to 0.55 (2025), indicating gradual stabilization driven primarily by private-sector efficiency.

5. Discussion

The empirical findings substantiate that solvency efficiency is the cornerstone of profitability in India's telecom sector. Interest coverage not only signifies debt-servicing capability but also captures operational robustness and financial discipline. Airtel's positive transformation underscores the synergy between deleveraging and digital strategy deploying capital efficiently into high-margin services such as data, enterprise connectivity, and fintech.

Vodafone Idea's partial stabilization illustrates the burden of post-merger restructuring, where high leverage and negative equity continue to constrain recovery despite modest liquidity improvement. MTNL's declining ratios, in contrast, highlight structural inefficiency common to public-sector undertakings constrained by legacy costs and limited innovation.

Strategically, the marketing dimension aligns with these financial trends. Airtel's premium brand positioning and differentiated service experience elevated ARPU (₹145 → ₹218) and EBITDA (48 % → 52 %), reinforcing profitability. Vodafone Idea's tactical campaigns improved customer retention but failed to offset financial weakness. MTNL's stagnant marketing approach mirrors its operational inertia.

6. Conclusions

The study concludes that financial resilience in the Indian telecom sector is largely determined by solvency and capital-structure optimization. Firms that maintain a positive interest-coverage ratio and moderate leverage while pursuing innovation-driven strategies sustain profitability even in turbulent markets. Airtel stands as the benchmark for financial prudence and strategic agility; Vodafone Idea

remains a case of constrained recovery; and MTNL faces existential risk without state-led restructuring.

The widening gap between private and public telecom players signals a structural duality that policy reform must address through consolidation, performance-based governance, and digital modernization.

7. Managerial and Policy Implications

Managers should prioritize debt rationalization, enhance interest-coverage ratios, and improve asset turnover through automation and digital integration. Liquidity efficiency, as seen in Airtel's case, can remain below the textbook 1:1 if cash flows are stable and receivables are efficiently managed.

Policymakers should accelerate BSNL-MTNL integration, extend incentives for 5G investments, and ensure tariff rationalization to secure sectoral stability. Investors and rating agencies may adopt composite indices like TFPI and SPI for benchmarking multidimensional corporate health.

8. Limitations and Future Research

The study covers three major operators and a five-year period (FY 2021-FY 2025). Including Reliance Jio and expanding the horizon could yield more comprehensive insights. Moreover, secondary data may not fully reflect service quality or customer satisfaction. Future work could integrate non-financial sustainability metrics and predictive econometric or machine-learning models to forecast post-5G performance trajectories.

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