

A study with selected ratios on financial performance of listed leading telecom companies in India

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Introduction:

Over the course of its 170-year existence, the Indian telecom industry has grown from a colonial-era telegraph service to the second-largest telecom market in the world, with more than 1.22 billion members as of late 2025. The first experimental electric telegraph connection between Diamond Harbour and Kolkata was established in 1850. In 1881, telephone services were legally inaugurated, and in 1882, the first exchanges opened in Chennai, Mumbai, and Kolkata. After gaining independence in 1947, all foreign telecom firms were nationalized and merged into the Ministry of Communications' Posts, Telephone and Telegraph (PTT) organization. For many years, the industry was controlled by the government. Only 80,000 telephone connections existed in India in 1948; by 1991, that number had gradually increased to almost 5 million. To concentrate only on telecom growth, the Department of Posts and the Department of Telecommunications were split off in 1985. The government founded VSNL for international services and MTNL for Delhi and Mumbai in 1986. The National Telecom Policy of 1994 allowed for private investment in value-added services following liberalization and private entry. Modi Telstra made India's first mobile phone call in Kolkata on July 31, 1995. To promote fair competition, the Telecom Regulatory Authority of India (TRAI) was founded in 1997. To address disagreements, the Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) was established in 2000. The DoT's operations division was corporatized as Bharat Sanchar Nigam Limited (BSNL) in October 2000. Reliance Jio's 2016 debut set off a fierce pricing war in the modern era, pushing the industry toward 4G high-speed internet and causing monthly data usage to skyrocket to almost 21 GB per user by 2024. Due to fierce rivalry, there are now just three private companies left: Vodafone Idea (Vi), Bharti Airtel, and Reliance Jio. In late 2022, India introduced 5G services. By 2025, the industry is progressing toward 6G development and enhanced digital infrastructure thanks to the Telecommunications Act of 2023.

Key words: Financial performance, Basic EPS ratio, Net Profit Margin ratio, Return on Capital Employed, Return on Assets, Dividend Payout Ratio

BRIEF PROFILE OF SELECTED COMPANIES

Reliance jio:

With a market share of almost 51% and a cellular customer base of about 515.3 million, Reliance Jio is the clear market leader. With an average revenue per user of ₹213.7 in late 2025, Jio, a digital-first powerhouse, has effectively switched from a volume-based approach to a value-based one. Its enormous 253 million 5G users and the quick development of its "AirFiber" fixed wireless service—which recently topped 11 million subscribers—are now driving its growth. Jio is still the major force behind India's data usage because to its extensive digital ecosystem, which includes AI-powered cloud services and unique content agreements. With more than 497 million users and a 60% share of wireless data traffic as of late 2025, Jio is the biggest operator and is making significant investments in satellite communications, 5G, and 6G.

Airtel:

As the "premium" operator, Bharti Airtel prioritizes profitability and high-value clients over volume. With a better Average Revenue Per User of ₹259 as of December 2025, it leads the sector

despite having a lesser cellular customer base of around 463 million. Often referred to as "premiumization," Airtel's plan entails growing its high-margin residential and business broadband services and moving 2G/4G subscribers to 5G. The business has reached its highest-ever revenue market share of around 40%, demonstrating its incredible tenacity. With the greatest percentage of active Visitor Location Register customers in the market (over 99%), Airtel's network is often praised for its high dependability and active user engagement. With more than 300 million users in India, this premier international provider operates in 17 countries. It is well-known for its corporate services, fast residential broadband, and robust 4G/5G network.

Vodafone Idea:

Vi is now concentrating on financial restructuring and network stabilization as part of a crucial turnaround phase. It has a market share of around 12.7% and serves over 193 million members as of the end of 2025. Despite ongoing customer attrition, the corporation has effectively expanded its 5G services to 43 locations throughout its 17 priority rings, reducing its losses. With the help of pricing changes and an effort to strengthen its 4G base, Vi's Average Return Per User has increased to 186. Supported by recent equity financing and substantial regulatory relief on government dues, Vi is working to restore its competitiveness by updating its infrastructure and growing its digital products with the integrated "Vi App". Currently concentrating on network growth and integration, this significant company was created by the merger of Idea Cellular and Vodafone India.

BSNL: Sanchar Nigam Limited, Bharat As of February 2026, BSNL is undergoing a significant strategic shift as part of the government's Atmanirbhar Bharat plan, moving from a legacy provider to a cutting-edge 4G/5G operator. As of December 2025, BSNL had over 92.8 million wireless customers. Its share of the wireless market is around 7.46%. With a combined PSU market share of 19.7% with MTNL and APSFL, BSNL is still a major participant in the wireline sector. As the sole provider in more than 5 lakh villages, BSNL is essential in closing the digital divide between rural and urban areas. A partnership between C-DOT, Tejas Networks, and Tata Consultancy Services (TCS) created the entirely in-house 4G technology stack that BSNL has implemented. 95,511 of BSNL's 97,672 4G stations were operational as of January 15, 2026. The recently installed 4G equipment is intended to be software-upgradable to 5G. By early 2026, 5G service trials in key cities like Delhi and Mumbai should be over. In collaboration with Viasat, BSNL is testing Direct-to-Device satellite connectivity and introduced countrywide Voice over Wi-Fi in January 2026.

With successive net profits in Q3 (₹262 crore) and Q4 (₹280 crore), BSNL reported its first quarterly earnings in 18 years, marking a historic milestone in FY 2024–25, according to the Financial Performance report. With enormous revival packages, including a ₹47,000 crore capital expenditure for FY 2025–2026 to finance its statewide 4G saturation and 5G improvements, the government is still supporting BSNL.

FINANCIAL ANALYSIS:

Establishing financial policies, evaluating economic trends, deciding which companies or projects to invest in, and formulating long-term corporate objectives all require financial research. To do this, financial numbers and data are combined. A financial analyst will thoroughly review a company's cash flow statement, balance sheet, and income statement. Financial analysis is useful in both business and investment finance contexts. One of the most common ways to analyze financial data is to compute ratios from the data in the financial statements and compare them to those of other companies or to the company's historical performance. The main concerns of financial ratio analysis are solvency, liquidity, profitability, and efficiency.

Literature review:

1. P. Danani (2024). Telecommunications: Analysis of Grant Demand for 2024–2025. Legislative Research (PRS). This policy evaluation details the government's ₹82,916 crore capital injection strategy for BSNL to guarantee sector viability and compares the financial health of the public sector (MTNL/BSNL) to private companies.
2. Research on Economic Times, 2024. Fitch's predictions for the Reliance Jio, Airtel, and Vodafone ideas. The Economic Times. An analysis of Fitch's 2025 forecasts, which predict both Jio and Airtel would see an EBITDA rise of 10% due to increasing data use of 21.3GB per subscriber on average.

3. Sharma, R., and Gupta, A. (2025). Jio vs. Airtel: An analysis of telecom firms' financial comparisons. IRJWEB. This analysis compares the two leaders' net profit ratios from 2021 to 2024, highlighting Jio's consistent 15% profitability and Airtel's slow recovery from 7.27% to 9.23%.
4. ICRA Limited (2025). ICRA Limited's study report on the Indian telecom sector. ICRA. This analysis notes that 5G capital spending probably peaked in FY2024–2025 and emphasizes how recent rate rises are anticipated to drive industry ARPU beyond ₹200 for FY2025.
5. Singh, P., and Kumar, S. (2025). An analysis of the telecom sector in India. IJCRT. To evaluate long-term operational efficiency, this article examines 14 important financial ratios for Airtel, Jio, and Vi, including leverage and liquidity, using Principal Component Analysis (PCA) on data from 2013 to 2023.
6. F. Nafees (2024). An analysis of Vodafone Idea Limited's financial performance reveals the effects of mergers and acquisitions in the telecom sector. Journal of Finance, Management, and Economics International, 7(1), 33–37. This study examines Vi's post-merger financial trajectory, looking at how Jio's fierce competition has affected the company's financial results until 2023.
7. Patel, J., and M. J. Patel (2024). Examination of the telecom sector's performance. IJMSSR. This report looks at the telecom industry's recovery after COVID-19, analyzing how growing data usage and the 5G revolution are assisting businesses in overcoming past financial obstacles.
8. Khan, M., and V. Reddy (2025). A multifaceted analysis of 5G services in India. IJCRT. The economic benefits of the 5G deployment are examined in this assessment, with particular attention paid to how the expansion of 5G networks' subscriber bases and infrastructure are affecting the main telcos' financial stability.
9. Analysis of Scribd (2025). Financial performance of telecoms: Airtel, Jio, Vi, Scribd. In contrast to Vodafone Idea's extremely negative margin (-73.21%) and unsustainable debt-to-equity ratio of -2.01x, Jio's strong net profit margin (20.43%) is highlighted in this comparative analysis of current indicators.
10. India's Telecom Regulatory Authority (TRAI). (2025). The 2024–2025 Indian Telecom Services Annual Performance Indicators (TRAI). The sector's financial health is reviewed in this official study, which also notes a notable increase in wireless average revenue per user to ₹174.46 and a 12.02% year-over-year growth in adjusted gross revenue.

RESEARCH METHODOLOGY

1. Time duration for the study: 2020-2021 to 2024-2025 – 5 years
2. Data collection: based on secondary method of selected company's annual report
3. Hypothesis is tested at 5% level of significance by multi regression [reliance jio is constant variable and other two are Predictors.
4. Basis of sample –The 3 companies are selected, those are working as leading telecom companies in India, reliance jio, airtel and vi
5. Population: BSNL, reliance jio, airtel and vi [BSNL is not listed in stock exchange]
6. Objective: to find the profitability in financial performance of selected telecom companies in India
7. Variable: 1] EPS ratio, 2] Net Profit Margin ratio 3] Return on Capital Employed 4] Return on Assets 5] Dividend Payout Ratio
8. Research gap: time duration, variable and selected companies

OBJECTIVES

1. To study Basic eps of the selected Telecom companies
2. To study Net Profit Margin ratio of the selected Telecom companies
3. To study Return on capital employee of the selected Telecom companies
4. To study Return on Assets of the selected Telecom companies
5. To study Dividend Payout Ratio of the selected Telecom companies

HYPOTHESIS

H01 : There is no significant impact of Basic eps among the selected companies

H02 : There is no significant impact of Net Profit Margin ratio among the selected companies

H03 : There is no significant impact of Return on capital employee among the selected companies

H04 : There is no significant impact of Return on Assets among the selected companies

H05 : There is no significant impact of Dividend Payout Ratio among the selected companies

BSNL: The state-owned operator is undergoing a major revival, focusing on 4G rollout and 5G pilot projects to regain market share.

TABLE 1

EPS (Rs.)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	Mean	Max	Min	Std. Dev
Reliance jio	26.06	62.14	65.34	59.24	49.66	52.49	65.34	26.06	15.89309
Bharti Airtel	40.60	8.74	-0.16	-6.53	-46.18	-0.71	40.60	-46.18	31.21504
VI	-26.97	-20.33	-12.07	-2.31	7.35	-10.87	7.35	-26.97	13.74212

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.498 ^a	.248	-.504	19.48823	.248	.330	2	2	.752

a. Predictors: (Constant), Bharti Airtel , VI

Model	Coefficients ^a	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	Reliance jio	43.829	27.279		1.607	.249	-73.543	161.201
	Airtel	-.551	1.019	-1.082	-.540	.643	-4.937	3.836
	VI	-.761	2.316	-.658	-.329	.774	-10.725	9.203

a. Dependent Variable: Reliance jio

ANOVA ^a		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	250.779	2	125.389	.330	.752 ^b
	Residual	759.583	2	379.791		
	Total	1010.361	4			

a. Dependent Variable: Reliance jio , b. Predictors: (Constant), Bharti Airtel , VI

The p-value 0.752 > 0.05 so null hypothesis is accepted and there is no significant impact of Basic eps among the selected companies.

TABLE 2

Net Profit Margin (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	Mean	Max	Min	Std. Devi
Reliance jio	6.81	7.86	8.36	9.22	13.00	9.05	13.00	6.81	2.37
Bharti Airtel	21.57	5.29	-0.10	-5.13	-39.17	-3.51	21.57	-39.17	22.32
VI	-163.55	-38.13	-16.02	-2.35	7.39	-42.53	7.39	-163.55	69.78

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.998 ^a	.997	.993	.19489	.997	295.733	2	2	.003

a. Predictors: (Constant), Bharti Airtel , VI

ANOVA ^a		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.465	2	11.233	295.733	.003 ^b
	Residual	.076	2	.038		
	Total	22.541	4			

a. Dependent Variable: RELAINCE JIO, b. Predictors: (Constant), Bharti Airtel , VI

Mode Coefficients ^a	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1							

1	(Constant)	8.370	.141		59.315	.000	7.763	8.977
	AIRTEL	-.120	.007	-1.128	-17.770	.003	-.149	-.091
	VI	-.006	.002	-.179	-2.818	.106	-.015	.003
a. Dependent Variable: RELAINCE JIO								

P value 0.003<0.05, null hypothesis is rejected and There is significant impact of Net Profit Margin ratio among the selected companies.

TABLE 3

R o C E	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	Mean	Max	Min	Std. Dev
Reliance jio	7.34	9.54	10.21	8.24	5.82	8.23	10.21	5.82	1.75
Bharti Airtel	10.68	8.65	7.80	5.66	4.05	7.37	10.68	4.05	2.58
VI	-6.11	-5.27	-2.26	3.24	4.00	-1.28	4.00	-6.11	4.70

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.490 ^a	.240	-.519	2.15589	.240	.316	2	2	.760

a. Predictors: (Constant), Bharti Airtel , VI

ANOVA ^a		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.941	2	1.471	.316	.760 ^b
	Residual	9.296	2	4.648		
	Total	12.237	4			

a. Dependent Variable: RELAINCE JIO, b. Predictors: (Constant), Bharti Airtel , VI

Model Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	10.168	10.227		.994	.425	-33.836	54.173
	AIRTEL	-.323	1.521	-.478	-.213	.851	-6.867	6.221
	VI	-.346	.836	-.932	-.415	.719	-3.942	3.249

a. Dependent Variable: RELAINCE JIO

The p-value 0.760 >0.05 so null hypothesis is accepted and there is no significant impact of Return on capital employee among the selected companies.

TABLE 4

Return on Assets (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	Mean	Max	Min	Std. Dev
Reliance jio	3.44	4.38	4.96	4.44	3.65	4.17	4.96	3.44	0.62
Bharti Airtel	5.98	1.41	-0.02	-1.27	-9.07	-0.59	5.98	-9.07	5.47
VI	-31.95	-6.03	-4.37	-0.86	3.36	-7.97	3.36	-31.95	13.88

Summary									
Mode Summary 1	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.908 ^a	.824	.647	.36903	.824	4.670	2	2	.176

a. Predictors: (Constant), Bharti Airtel , VI

ANOVA ^a		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.272	2	.636	4.670	.176 ^b
	Residual	.272	2	.136		
	Total	1.544	4			

a. Dependent Variable: RELAINCE JIO, b. Predictors: (Constant), Bharti Airtel , VI

Model Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	4.849	.276		17.569	.003	3.661	6.036
	Airtel	.156	.061	1.377	2.580	.123	-.104	.417
	VI	.073	.024	1.630	3.055	.093	-.030	.176

a. Dependent Variable: RELAINCE JIO

The p-value .176>0.05 so null hypothesis is accepted and there is no significant impact of Return on Return on Assets among the selected companies.

TABLE 5

Dividend Payout Ratio (%)	Mar 25	Mar 24	Mar 23	Mar 22	Mar 21	Mean	Max	Min	Std.Dev
Reliance jio	19.18	14.48	11.49	10.99	12.27	13.68	19.18	10.99	3.35
Bharti Airtel	19.71	45.63	-1,967.63	0.00	-4.33	-381.32	45.63	1967.63	886.99
VI	0.00	0.00	0.00	0.00	8.16	1.63	8.16	0.00	3.65

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.503 ^a	.253	-.494	4.09619	.253	.338	2	2	.747

a. Predictors: (Constant), Bharti Airtel , VI

ANOVA ^a		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.353	2	5.676	.338	.747 ^b
	Residual	33.558	2	16.779		
	Total	44.910	4			

a. Dependent Variable: RELAINCE JIO, b. Predictors: (Constant), Bharti Airtel , VI

Coefficients ^a		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	14.857	2.339		6.351	.024	4.791	24.922
	Airtel	.002	.002	.457	.727	.543	-.009	.012
	VI	-.316	.578	-.344	-.547	.639	-2.802	2.170

a. Dependent Variable: RELAINCE JIO

The p-value 0.747>0.05 so null hypothesis is accepted and there is no significant impact of Dividend Payout Ratio among the selected companies.

FINDING & CONCLUSION:

Variables - ratios	P-value	Decision on Ho	Decision on H ₁
EPS ratio	0.752	Accepted	Rejected
Net Profit Margin ratio	0.003	Rejected	Accepted
Return on Capital Employed	0.760	Accepted	Rejected
Return on Equity	0.176	Accepted	Rejected
Dividend Payout Ratio	0.747	Accepted	Rejected

Only the Net Profit Margin ratio had a statistically significant effect on the dependent variable out of the five financial ratios that were examined. The significance level was not met by any of the other ratios (EPS, ROCE, ROE, and dividend payout), indicating that their effects in this particular dataset are not statistically significant. Margin of Net Profit p = 0.003 The null hypothesis is disproved since the p-value is significantly less than 0.05. This suggests a substantial and statistically significant

correlation. The outcome being assessed can be accurately predicted by changes in the net profit margin. Return on Equity (ROE) $p = 0.176$: Although it is nearer the cutoff than the rest, it is still not significant. We conclude that the influence is negligible. Dividend Payout, ROCE, and EPS $p > 0.70$: The p-values for these ratios are quite high (0.752, 0.760, and 0.747, respectively). This implies that there is no discernible relationship between these factors and the study's dependent variable. Nearly all of the outcomes for these three are the product of chance. Out of the five financial ratios investigated, the study finds that Net Profit Margin is the only one that has a statistically significant impact on the dependent variable ($p < 0.05$). As a result, the null hypothesis for net profit margin is rejected, while the null hypotheses for EPS, ROCE, ROE, and dividend payout ratio are accepted. This implies that bottom-line profitability efficiency, rather than investment returns or payout structures, is what drives market performance or the goal variable.

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