

Assessing the Profitability Metrics of Bharti Airtel Limited: A Statistical Overview

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Abstract

The telecommunication sector is a vital industry in India, with Bharti Airtel Ltd. being the largest private telecom operator and market leader in mobile services by subscriber base. Since investors rely on consistent profitability for dividends and capital appreciation, this study examines Bharti Airtel's financial performance using key profitability ratios. The analysis reveals that both total income and net profit grew significantly during the study period. However, the growth rate of total income outpaced net profit, indicating that expenses rose faster than revenue. Despite this, the company maintained strong operational efficiency, as evidenced by its operating profit ratio exceeding the net profit ratio in 10 out of 12 years. While return on investment (ROI) remained favorable until 2010-11, it declined in subsequent years. Additionally, earnings per share (EPS) were relatively low throughout the study period, suggesting challenges in translating revenue growth into higher shareholder returns.

Keywords: profitability, operating profit, expenses, ratio and telecommunication.

Introduction

Communication is a fundamental human necessity, evolving from primitive gestures to advanced digital technologies. Among the various modes, oral communication remains predominant as it allows individuals to convey emotions and thoughts effectively. In India, telecommunication—particularly mobile phone usage—has witnessed exponential growth, with both government and private players offering services ranging from voice calls and SMS to internet and value-added features. This sector faces intense competition, with Bharti Airtel Ltd. emerging as the market leader, holding the largest subscriber base. Incorporated on July 7, 1995, as a public limited company, Bharti Airtel has expanded into a global telecom giant, operating across 20 countries in Asia and Africa and ranking among the world's top four mobile service providers. Headquartered in New Delhi, its diversified portfolio includes 2G, 3G, and 4G wireless services, broadband, IPTV, DTH, and enterprise solutions.

Profitability remains the cornerstone of any business, ensuring sustainability and enhancing shareholder value. Given Bharti Airtel's dominance and the sector's competitive dynamics, this study focuses on analyzing the company's profitability to evaluate its financial health and long-term viability in a rapidly evolving industry.

Review of Literature

Rajput Vijay M and Rich (2015) in their study analysed financial performance of BSNL and Idea Cellular Ltd. The study found that performance of IDEA Cellular Ltd. was better than BSNL. Further it has

been observed from the analysis that BSNL has made continuous loss during the study period which was the main reason of weak financial position of BSNL. Ponnamm Gautama Sharma and Risham Preet Kaur (2015) undertook a study on “Working Capital Management and its Impact on Profitability: A Study of Bharti Airtel Telecom Company”. For this purpose the study selected Bharti Airtel Ltd. The study evidenced significant improvement in liquidity performance of the company during the study period. The study also found significant negative relationship between liquidity and profitability, which indicates that Bharti Airtel had maintained post optimal level of liquidity during the period. Vijayalakshmi B and Sailasa M N (2013) found in their study that the financial health of BSNL, Airtel and Reliance communication were poor. In spite of having a well established infrastructural capacity, the public sector giant BSNL is still suffering to cope-up with the competition from private net work operators like Airtel and Reliance communication. God Fred Yaw Kio Akrofi (2013) evidenced that revenue of the telecommunication industry increased five times, total assets and net assets increased by four times, net profit increased considerably and subscriber base (SB) increased 13 times during the study period. John Thomas and Ramesh Damarla (2012) in their study diagnosed financial performance of BSNL for the period of ten years from 2002-03 to 2010-11. The researchers found that strong liquidity position was existed during the study period. The study also found that profitability of BSNL was highly fluctuating during the study period. Its net profit ratio was good during the first seven years of the study period, during the last two years net profit ratio of BSNL was negative.

Statement of the problem

The telecommunications sector stands as a critical pillar of India's economic growth, with recent technological advancements revolutionizing communication accessibility and affordability. Mobile telephony, complemented by value-added services like internet connectivity, has particularly transformed the industry landscape. Within this dynamic environment, Bharti Airtel Limited has emerged as India's largest private telecom operator, commanding the highest market share in mobile services by subscriber base.

The company's strong market position is reflected in its stock market performance, with its shares being actively traded and included in both premier market indices - the BSE Sensex and NSE Nifty. This prominence makes Bharti Airtel a significant indicator of sectoral health and investor confidence. Since shareholder returns through dividends and capital appreciation fundamentally depend on consistent profitability, financial performance becomes a crucial measure of corporate success.

Recognizing this critical relationship between profitability and sustainable growth, this study undertakes a comprehensive analysis of Bharti Airtel's financial health through examination of key profitability ratios. The research aims to provide valuable insights into the company's operational efficiency and long-term viability in India's highly competitive telecommunications market.

Objective

The study has been done with the following objective.

1. To study profitability of Bharti Airtel Limited.

Methodology

This research employed a comprehensive analytical approach to evaluate the profitability performance of Bharti Airtel Limited. The study utilized financial data extracted from the company's annual reports

spanning twelve fiscal years (2004-05 to 2015-16). To ensure robust analysis, the research methodology incorporated both statistical and financial examination tools.

For statistical evaluation, the study applied:

- Descriptive statistics (means and standard deviation)
- Coefficient of variation (CV) to assess data dispersion
- Compounded annual growth rate (CAGR) for trend measurement
- Time-series trend analysis

Financial assessment was conducted through ratio analysis, examining key profitability indicators. This dual-method approach enabled both quantitative measurement and qualitative interpretation of Bharti Airtel's financial performance over the study period.

Results and Discussion

The study has been carried out to analyse profitability of Bharti Airtel Ltd for the period of 12 years from 2004-05 to 2015-16. Table 1 presents the results of total income, net profit, their trend, mean, standard deviation, co-efficient of variation and compounded annual growth rate.

Year	Total Income		Net Profit	
	Rs.	Change (%)	Rs.	Change (%)
2004-05	7817.93		1210.67	
2005-06	11217.47	43.48	2012.08	66.19
2006-07	17674.65	57.56	4033.23	100.45
2007-08	25343.60	43.39	6244.19	54.82
2008-09	33489.16	32.14	7743.84	24.02
2009-10	35232.16	5.20	9426.15	21.72
2010-11	37692.80	6.98	7716.90	-18.13
2011-12	41603.80	10.38	5730.00	-25.75
2012-13	45350.90	9.01	5096.30	-11.06
2013-14	49918.50	10.07	6600.20	29.51
2014-15	55496.40	11.17	13200.50	100.00
2015-16	60300.20	8.66	7546.50	-42.83
Mean	35094.80		6380.05	
SD	16897.77		3222.81	
CV	48.15		50.51	
CAGR	18.56		16.47	

Table 1: Trend of Total Income and Net profit

Source: Computed from Annual Reports.

The analysis reveals significant growth in Bharti Airtel's financial metrics during the study period. As presented in Table 1, the company's total income demonstrated remarkable expansion, escalating from ₹7,817.93 crore in 2004-05 to ₹60,300.20 crore in 2015-16 - representing a sevenfold increase. This growth was particularly pronounced between 2005-06 and 2008-09, followed by consistent but more moderate increases in subsequent years. Statistical measures (mean, standard deviation, and coefficient of

variation) indicated moderate fluctuations around the mean income value, while the CAGR confirmed robust overall income growth.

Net profit followed a similar upward trajectory, growing sixfold from ₹1,210.67 crore to ₹7,546.50 crore during the same period. However, this growth exhibited greater volatility, with notable doubling events in 2006-07 and 2014-15, contrasted by significant declines - particularly a 42.83% drop in 2015-16 and consecutive decreases from 2010-11 to 2012-13. The CAGR analysis revealed that while net profit growth remained strong, it was outpaced by total income growth, indicating that expenditure growth exceeded revenue expansion during the period.

Figure 1 visually represents these trends, illustrating both the overall positive trajectory and the periodic fluctuations in operating income and net profit. The comparative growth patterns suggest that while Bharti Airtel successfully scaled its operations, maintaining profitability margins presented ongoing challenges, particularly in later years of the study period.

The researchers have calculated Net Profit Ratio, Operating Profit Ratio, Earnings Per Share and Return on Investment of Bharti Airtel Ltd in order to analyse profitability of the company and the results are presented in table 2.

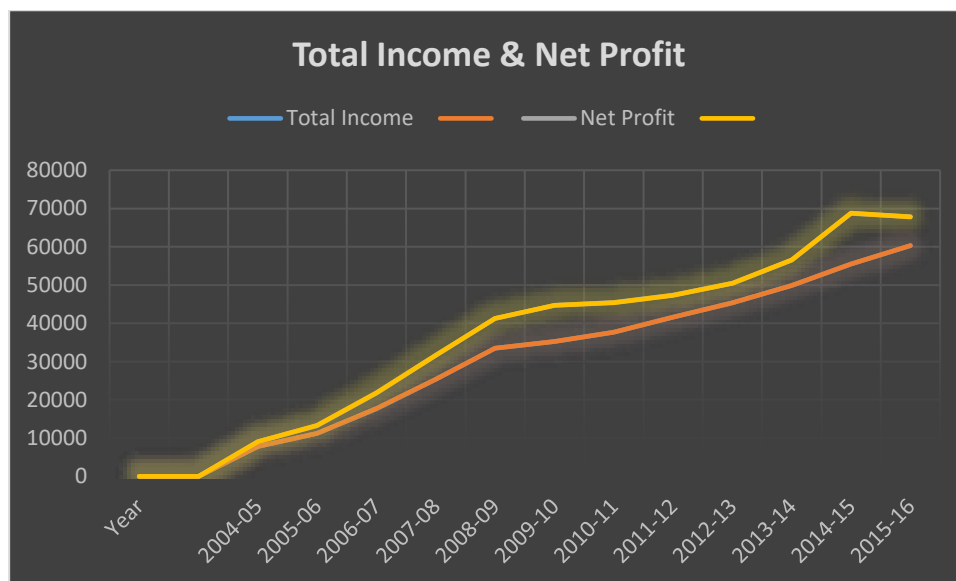


Figure 1: Trend of Total Income and Net Profit

Year	NPR (%)	OPR (%)	EPS (Rs)	ROI (%)
2004-05	15.49	18.10	6.53	9.66
2005-06	17.94	19.40	10.62	12.52
2006-07	22.82	23.74	21.27	18.01
2007-08	24.64	25.62	32.90	19.08
2008-09	23.12	27.97	40.79	19.51
2009-10	26.75	24.07	24.82	20.77
2010-11	20.47	20.52	20.32	13.08
2011-12	13.77	15.63	15.09	9.37

Table: 2 Profitability Ratios of Bharti Airtel Ltd.

2012-13	11.24	11.65	13.42	7.44
2013-14	13.22	14.19	16.51	8.34
2014-15	23.79	16.97	33.02	12.77
2015-16	12.51	15.95	18.88	5.63
Mean	18.81	19.48	21.18	13.01
SD	5.43	5.00	10.12	5.19
CV	28.88	25.65	47.78	39.88

Source: Computed from Annual Reports

The examination of profitability ratios reveals significant insights into Bharti Airtel's financial performance during the study period. As evidenced in Table 2, the net profit ratio demonstrated considerable stability, fluctuating between 11.24% and 26.75%, with particularly strong performance (exceeding 20%) during 2006-07 to 2010-11 and in 2014-15. The mean net profit ratio of 18.81% indicates consistently healthy profitability, supported by low variability as reflected in the standard deviation and coefficient of variation results.

More notably, the operating profit ratio exhibited even more robust performance, maintaining a range of 11.24% to 26.75% throughout the study period. The ratio consistently remained above 10%, with peak performance (above 20%) mirroring the net profit ratio's strongest years. A critical observation emerges from the comparative analysis: in all years except 2009-10 and 2014-15, the operating profit ratio surpassed the net profit ratio. This pattern suggests strong operational efficiency, as evidenced by higher operating income, while simultaneously indicating that non-operating expenses consistently outweighed non-operating incomes during most years. The mean operating profit ratio of 19.48% further confirms the company's operational strength, with minimal deviation as demonstrated by the statistical measures. These findings collectively portray Bharti Airtel as maintaining efficient core operations throughout the study period, though non-operational factors occasionally impacted bottom-line profitability.

Earning per share of Bharti Airtel Ltd. was fluctuating during the study period. It ranged from Rs.6.53 to Rs.40.79 per share. High EPS were found during 2007-08, 2008-09 and 2014-15. EPS was found to be low during 2004-05. Mean value of EPS is also found to be low. Moderate level of deviation was found in EPS as per the results of SD and CV. Return on investment of the company ranged from 5.63 to 20.77 percent during the study period. Return on investment was increasing up to the year 2009-10 and latter it was fluctuating. Return on investment of the company was found to be high during 2005-06 to 2010-11 and during 2014-15. During other years it was less than 10 per cent. Less than 10% of RIO considered low and they are found in 2011-12 to 2013-14 and 2015-16. The results of SD and CV revealed moderate level of deviation in the ratio. Two ways of increasing profit of a concern is either to increase revenue or to decrease expenses. Hence analysing expenses is important in profitability analysis. Access charges, licence fee and spectrum charges, depreciation, rent, power and fuel expenses, and employees benefit expenses are identified as major expenses of telecommunication companies. Table 3 gives the results of total and above mentioned expenses ratio of Bharti Airtel Ltd for the study period.

(Percentage)

Year	Total Expenses	Access Charges	Licence Fee & Spectrum Charges	Employees Expenses	Benefit	Power and Fuel	Rent	Depreciation
2004-05	84.51	21.53	9.76	6.45		1.84	1.24	13.04
2005-06	82.06	19.18	9.62	6.91		2.67	1.49	12.77
2006-07	77.18	17.52	9.27	6.37		3.50	1.53	13.31
2007-08	75.36	15.94	10.20	5.26		3.89	3.20	12.49
2008-09	76.88	15.54	10.70	4.28		4.82	8.58	9.57
2009-10	73.25	12.59	10.66	4.08		6.22	10.17	11.04
2010-11	79.53	13.23	13.24	3.85		6.48	11.14	11.13
2011-12	86.23	13.96	11.28	3.34		7.15	11.47	14.22
2012-13	88.76	16.36	10.76	3.33		7.87	11.52	15.05
2013-14	86.78	14.63	10.95	3.30		8.35	11.40	14.49
2014-15	76.21	14.34	12.08	3.05		7.42	10.77	13.62
2015-16	87.49	13.31	11.72	3.10		6.70	10.85	15.83
Mean	81.19	15.68	10.85	4.44		5.57	7.78	13.05
SD	5.43	2.65	1.12	1.43		2.16	4.46	1.80
CV	6.69	16.93	10.34	32.19		38.79	57.38	13.82

Table: 3 Expenses Ratios of Bharti Airtel Ltd.

Source: Computed from Annual Reports

The study of Bharti Airtel's expense structure reveals several critical insights into the company's cost management. As shown in Table 3, the total expenses ratio remained consistently high, ranging between 73.25% and 88.76% of total income, with a mean value of 81.19%. This substantial expense ratio, coupled with minimal deviation as indicated by standard deviation and coefficient of variation, suggests stable cost patterns despite the company's significant profitability.

A detailed examination identifies several major expense components:

Access charges constituted a substantial portion, accounting for 12.59% to 21.53% of total income (mean: 15.68%). This expense, representing approximately one-sixth of total income and 20% of total expenses, showed consistent patterns with low variability.

Regulatory costs, including license fees and spectrum charges, ranged from 9.27% to 13.24%, peaking in 2010-11 but generally stabilizing around 10% of total income in subsequent years.

Depreciation expenses remained significant (9.5%-15.83%), exceeding 10% in all years except 2008-09, reflecting the capital-intensive nature of telecom operations. These costs demonstrated stable patterns with low deviation.

Operational costs showed contrasting trends:

Power and fuel expenses (1.84%-8.35%) exhibited an upward trajectory throughout the study period, with moderate variability

Rent expenses (1.24%-11.52%) similarly increased over time, showing moderate deviation

Employee expenses (3.05%-6.91%) demonstrated a declining trend, as income growth outpaced personnel cost increases, with moderate fluctuation around the mean



The analysis highlights Bharti Airtel's ability to maintain profitability despite significant and growing operational expenses, particularly in infrastructure-related costs, while demonstrating improved efficiency in personnel expenditure management. The consistent patterns across most expense categories, as evidenced by the statistical measures, suggest systematic cost management practices throughout the study period.

Conclusion

The telecommunications industry has emerged as a critical and rapidly developing sector in India, transforming the way people connect through affordable and accessible mobile services. As the country's largest private telecom operator, Bharti Airtel Ltd. dominates the market with a 24.32% subscriber share (TRAI report, October 2016), establishing itself as the industry leader.

This study reveals that Bharti Airtel achieved substantial growth in both total income and net profit during the analysis period. However, the faster growth rate of total income compared to net profit indicates that expenses grew more rapidly than revenues. Despite this cost pressure, the company maintained strong operational efficiency, as demonstrated by its operating profit ratio exceeding the net profit ratio in 10 out of 12 study years. While return on investment remained healthy until 2010-11, it showed deterioration in subsequent years. Additionally, the company's earnings per share remained relatively low throughout the study period, suggesting challenges in translating revenue growth into stronger shareholder returns.

These findings highlight Bharti Airtel's successful market expansion while also revealing important insights about its cost management and profitability trends in India's competitive telecom landscape.

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