

# **PROFITABILITY CHALLENGES IN THE INDIAN TELECOM SECTOR: A CASE STUDY OF BHARTI AIRTEL AND VODAFONE IDEA**

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## **ABSTRACT**

The Indian telecom sector has witnessed intense competition, regulatory interventions, and technological advancements, impacting profitability. This study uses Return on Capital Employed (ROCE), Net Profit per Share (NPS), and Return on Assets (ROA) to analyze the profitability of two of the top telecom firms in India: Bharti Airtel Ltd. and Vodafone Idea Ltd. The analysis covers a five-year period from 2018–2019 to 2022–2023. The result of the investigation shows a notable disparity between the two companies' financial performance. With ROCE heading in the right direction and NPS and ROA on the rise, Bharti Airtel is showing signs of improving profitability. While NPS and ROA have barely improved, Vodafone Idea is still having trouble; the company has a negative ROCE. Based on these outcomes, it shows that Bharti Airtel may have an additional favourable profitable future than Vodafone Idea. Further research could study the factors taking these trends and their continuing suggestions for both businesses.

**KEYWORD:** Assets, Economic, Finance, Indian Telecom, Ratio.

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## **I. INTRODUCTION**

India's telecom industry is an extreme one that is permanently changing. Telecommunications corporations have one of the biggest customer bases on the earth, but their effectiveness has been

hurt by some economic problems and intense competition. The Indian telecom industry has expanded to become a world-wide powerhouse because to an extraordinary user base that exceeds that of many industrialized countries. This notable surge has been ascribed to several factors, including the expanding middle class, government ideas encouraging digital inclusion, and the rushing pace of technical revolution.

However, under this striking veneer of progress lies a elaborate and extremely competitive landscape that has severely taxed the ability of telecom firms to turn a profit. Although relatively low margins and high operational expenditures, a small number of leading competitors have been combatting for marketplace dominance in the Indian telecom industry, which has undertaken a hurried consolidation in recent years. Because of the severe competition, operatives are constantly beating their rates to withdraw and retain customers at the expense of their bottom line, creating an endless pricing competition. Moreover, because the telecom business is intrinsically capital-demanding, it requires substantial capital expenses for network infrastructure, spectrum procurement, and technological improvements. The arrival of 5G technology has escalated the saddle of capital expenditure since network operators are whistled to put up next-generation networks to converge the expanding demand for fast-speed data and constant connections. Jointly with regulatory fees and taxes, these capital expenditures have substantially harmed the profitability of telecom operatives, imperilling the continuing continued existence of the firms.

The financial performing of telecom carriers in India has similarly been substantially impacted by the leading surroundings Government involvements, while supposedly aimed at protective customer safeties and encouraging competition, have often challenged criticism for their impulsiveness and potential harmful impact on business effectiveness. Frequent alterations to interconnect use fees, license requirements.

And spectrum sharing laws have made the governing environment insecure. Due to this, the tasks faced by telecom carriers have become even more complicated. This research is essential to comprehend how these significant Indian telecom businesses' financial situation are altering. By studying profitability metrics similar Return on Capital Employed (ROCE), Return on Assets (ROA), and Net Profit per Share (NPS), we can determine more about an organization's capability to produce returns on investments, accomplish assets efficiently, and growth shareholder value.

## II. REVIEW OF LITERATURE

- **Karlsson et al. (2001)** carried out a global financial benchmarking evaluation of telecom companies. The explore emphasized best practices for financial management and recommended insightful info on the financial performing of telecom companies across many geographies.
- **Ganesan (2007)** analyzed the efficiency of Indian telecom equipment companies' working capital management. The study determined that these companies' profitability and financial solidity depended strongly on effective working capital managing.
- **Prasad, R. K., & Singh, S. (2014)** studied the economic records of Reliance Communications and Bharti Airtel, they discovered that both companies fought with debt controlling and productivity. The writers persuade enterprises to spotlight on cost-downsizing and profits-variation strategies to reinforce their economic view.
- **Khan & Safiuddin (2014)** analyzed the connection amongst Indian telecom companies' financial accomplishment and corporate governance. The study show up the significance of openness, responsibility, and moral performance by finding a positive association relating sound corporate governance standards and financial performance.
- **Raza (2015)** observed the financial results of the Indian telecom business, with particular thought to the effects of laws and policies. The analyze made clear how essential it is to have a controlling environment that supports industrialized progress and profitability.
- **Sharma, A., & Sharma, R. (2016)** revealed that Bharti Airtel outshined Idea Cellular in positions of liquidity metrics and productivity. The authors suggest that Idea Cellular improve operational competence and regulate expenses to expand its business operation.
- **Bedi (2018)** explored Indian telecom firms' performance following acquisitions. The study's conclusion that mergers and acquisitions don't always result in superior financial performance highlights the impact of thorough due persistence and incorporation research.
- **Ramachandran & Kelkar (2019)** carried out research to estimate Reliance Jio's and Bharti Airtel's financial outcomes. The study assessed the two businesses and pinpointed opportunities for development consuming a variety of financial constraints.
- **Singh, S., & Kaur, H. (2019)** brought to light significant changes in the economic operation of the telecom companies throughout India. The writers put emphasis on that

company's requirement to use cutting-edge approaches to enhance productivity and profitability in the appearance of extreme competition.

- **Nagdev & Pishori (2019)** analyzed the Altman Z-Score model to influence the economic health of Indian telecom firms. Though numerous businesses were in the gray area, indicating possible financial difficulty, the margin of the businesses were judged to be economically sound.
- **Acharya & Roy (2020)** carried out an essential investigation of Indian telecom firms. The study examined dominant financial indicators and determined variables including debt levels, monitoring changes, and rivalry strength that assumed these big business monetary hit.
- **Ahuja, G., & Gupta, M. (2020)** found that Reliance Jio outperformed Bharti Airtel in relations of liquidity, profitability and solvency metrics across the examined period. The writers recommend that Bharti Airtel focus on proceeds diversification and cost optimization schemes to boost up its financial performance.
- **Barot & Japee (2021)** compared the financial outcome of a few Indian telecom industries in their evaluation. The research engaged distinct financial boundaries to estimate liquidity, profitability and solvency, thereby displaying the contrasting performance standards among separate segment partakers.
- **Ahmed & Muhammed (2021)** examined how the commercial performance of Indian telecom businesses was influenced by capital structure. Enterprises should enhance their debt-to-equity ratio for enhanced financial performance, according to the study, which classified an extensive correlation between profitability and capital structure.
- **Gupta & Rao (2022)** examined the impact of regulations by the Telecom Regulatory Authority of India (TRAI) on the financial performance of telecom companies. Their research indicated that while regulations aimed at ensuring fair competition, such as capping call termination charges, can benefit consumers, they can also restrict revenue streams for telecom companies, hindering profitability. This highlights the need for a balanced regulatory approach that fosters a competitive environment.
- **Patel & Shah (2023)** explored the financial burden of spectrum acquisition for Indian telecom companies. Their findings suggest that the high costs associated with spectrum auctions, coupled with declining Average Revenue Per User (ARPU) due to intense competition, present a significant challenge to profitability. This emphasizes the need for

innovative strategies to improve operational efficiency and explore alternative revenue streams alongside network upgrades.

### III. OBJECTIVES OF STUDY

- A. To determine the profitability inclinations for Vodafone Idea Ltd. and Bharti Airtel.
- B. Compare the financial performance of Bharti Airtel and Vodafone Idea Ltd.

### IV. RESEARCH METHODOLOGY

#### A. SAMPLING METHOD

- a. The research study is based on snowball sampling technique.

#### B. DATA COLLECTION

- a. The financial data and information required for the study are derived from the secondary source created by money control.

#### C. PERIOD OF THE STUDY

- a. This study covered a five-year period (2018–2019 to 2022–2023), and the two businesses' annual reports—Bharti Airtel Ltd. and Vodafone Idea Ltd.—provided the study's critical data.

#### D. ACCOUNTING TOOLS

##### a. Profitability Ratios

- $\text{Return on Capital Employed} = \text{EBIT} / \text{Capital Employed}$
- $\text{Net Profit per Share} = \text{Net Income} / \text{Total Revenue} * 100$
- $\text{Return on Assets} = \text{Net Income} / \text{Average Total Assets} * 100$

#### E. STATISTICAL TOOLS

- a. **Mean**
- b. **Standard Deviation**

### V. DATA ANALYSIS & INTERPRETATION

This section delves into the financial performance of Bharti Airtel and Vodafone Idea, analyzing key metrics to understand the profitability challenges they face. The analysis will

utilize financial data from annual reports. The interpretation of this data analysis will be crucial for understanding the case studies and formulating potential solutions for improved financial performance.

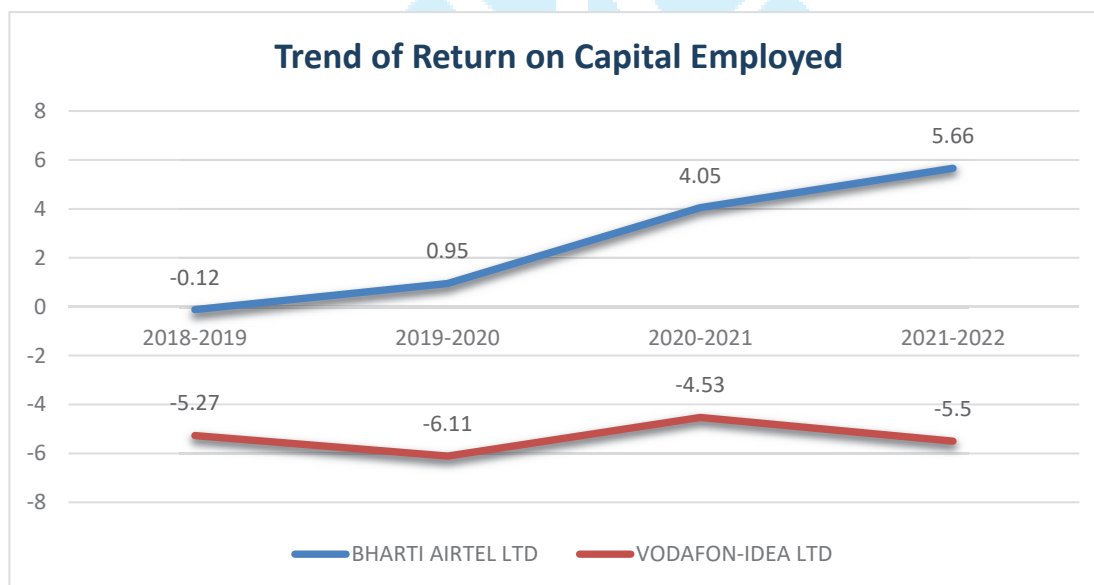
**Table 1: Return on Capital Employed**

YEAR	BHARTI AIRTEL LTD	VODAFON-IDEA LTD
2018-2019	-0.12	-5.27
2019-2020	0.95	-6.11
2020-2021	4.05	-4.53
2021-2022	5.66	-5.5
2022-2023	7.8	-3.94

**Source: Compiled by author by using annual reports of these two companies**

The above table 1 shows the five-year Return on Capital Employed (ROCE) of Bharti Airtel Ltd., and Vodafone Idea Ltd., most likely covering from the year 2018–19 to the year 2022–23.

**Chart 1: Trend of Return on Capital Employed**



**Source: Author's Compilation**

The Chart 1 shows the trend of Return on Capital Employed for both the companies from the year 2018-19 to the year 2021-2022.

- A. **Bharti Airtel:** After being negative for the first 2 years, Airtel's ROCE has been positive for the last three years (2020–21 to 2022-23). There is an obvious upward trend, which indicates that profitability is ascending in kin to the capital employed.
- B. **Vodafone-Idea:** Over the course of the last 5 years, Vodafone-Idea has continuously registered a negative ROCE and this indicates that the business is having concern turning a profit on the money it finances.

In terms of ROCE, Bharti Airtel has surpassed Vodafone-Idea by extensive scope in recent years and Airtel's positive ROCE shows that they are earning money on their capital investments, at the same time as Vodafone-Idea's adverse ROCE says that they are losing money. And it showed that Vodafone-Idea has been battling recently, while Bharti Airtel's profitability has better. To grasp the underlying causes of these tendencies and their capability prospect outcomes on both businesses, more probe is needed.

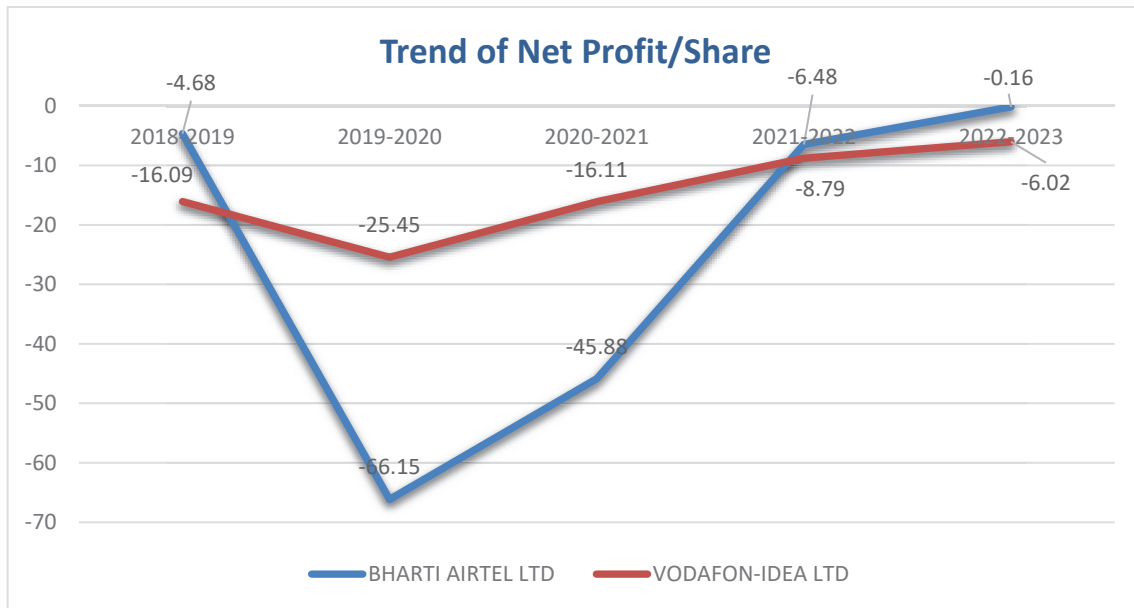
**Table 2: Net Profit per Share**

YEAR	BHARTI AIRTEL LTD	VODAFON-IDEA LTD
2018-2019	-4.68	-16.09
2019-2020	-66.15	-25.45
2020-2021	-45.88	-16.11
2021-2022	-6.48	-8.79
2022-2023	-0.16	-6.02

**Source: Compiled by author by using annual reports of these two companies**

The table 2 shows the Net Profit Share of Bharti Airtel Ltd. and Vodafone Idea Ltd. for five financial years, likely from the year 2018-19 to the year 2022-23.

**Chart 2: Trend of Net Profit per Share**



**Source: Author's Compilation**

The chart 2 indicates the net profit per share (NPS) trend for Bharti Airtel and Vodafone Idea Ltd. during a five-year period amongst 2018 and 2023. The y-axis shows the net profit per share in rupees, while the x-axis signifies the fiscal year.

- A. **Bharti Airtel:** In 2018–2019, net profit share was -4.68 rupees; in 2022–2023, it was -0.16 rupees.
- B. **Vodafone Idea:** Net profit share go down from -16.09 Rs. in 2018–2019 to -6.02 Rs. in 2022–2023.

The data shows that, while being negative, the net profit share of together firms has enhanced over the past two years. This suggests that they are not earning income. To determine if this is a recent trend or a part of a more substantial issue, a long-term profitability study may be helpful. Both Bharti Airtel and Vodafone Idea are battling to make a profit.

**Table 3: Return on Assets**

YEAR	BHARTI AIRTEL LTD	VODAFON-IDEA LTD
2018-2019	-0.83	-6.03
2019-2020	-12.01	-31.95
2020-2021	-9.07	-22.79
2021-2022	-1.27	-14.56
2022-2023	-0.02	-14.13

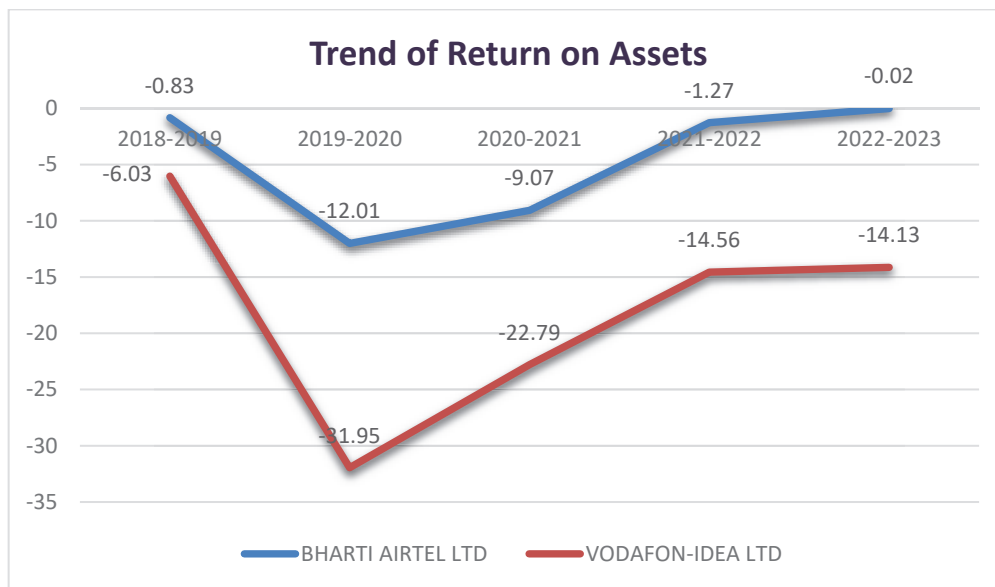




**Source: Compiled by author by using annual reports of these two companies**

The table 2 shows the Return on Assets of Bharti Airtel Ltd. and Vodafone Idea Ltd. for five financial years, likely from the year 2018-19 to the year 2022-23.

**Chart 3: Trend of Return on Assets**



**Source: Author’s Compilation**

The chart 3 shows that the ROA of both companies has been negative for the past five years. Vodafone Idea has a consistently lower ROA than Bharti Airtel.

- A. **Bharti Airtel:** The ROA has been improving slightly over the past two years. It went from -12.01% in year 2019-2020 to -1.27% in year 2021-2022 and further improved to -0.02% in year 2022-2023.
- B. **Vodafone Idea:** Over the previous two years, there has also been a minor improvement. In year 2019–2020, it was -31.95%; in year 2021–2022.

The overall trend indicates that in terms of return on assets, Bharti Airtel is in a stronger financial position than Vodafone Idea. The return on assets (ROA) of both firms is negative, but Bharti Airtel's is approaching zero and improving. This section looks at each profitability ratio's year-over-year alteration for both companies.

**Table 4: Different Ratio of Bharti Airtel and Vodafone Idea**

Ratio	ROCE (%)		Net Profit/Share		ROA (%)	
	Bharti Airtel	Vodafone Idea	Bharti Airtel	Vodafone Idea	Bharti Airtel	Vodafone Idea
Mean Change	-122%	-4%	275%	-14%	285%	91%
Standard Deviation( $\sigma$ )	531%	27%	693%	48%	709%	227%
Minimum Change	-892%	-28%	-98%	-45%	-98%	-36%
Maximum Change	326%	21%	1313%	58%	1347%	430%

**Source: Compiled by author by using annual reports of these two companies**

The table 4 showed that there have been clear variations in Bharti Airtel's ROCE from year to year. However, through the preceding two years (2021–2022 and 2022–2023), ROCE has risen, which is a positive trend. Vodafone Idea's ROCE has various as greatly, but they haven't turned a profit in the preceding five years. Likewise, Bharti Airtel's ROA and net profit per share have been different substantially from year to year. However, both signs have indicated an upward tendency over the preceding two years. Over the years, Vodafone Idea's ROA and net profit per share haven't shown a continuous up trend.

## VI. CONCLUSION

The Indian telecom sector faces a challenging environment characterized by intense competition, high spectrum acquisition costs, and regulatory interventions. The profitability metrics that were examined at (ROCE, ROA, and Net Profit per Share) show that Bharti Airtel is now doing more effectively financially than Vodafone Idea. This concluding section summarizes the key findings from the case studies of Bharti Airtel and Vodafone Idea, highlighting the factors:

- A. **Return on Capital Employed (ROCE):** Bharti Airtel's ROCE has just now become positive, whereas Vodafone Idea's ROCE is yet negative. This recommends that, to make different to Vodafone Idea, Bharti Airtel is making money from the capital it invests.
- B. **Net Profit per Share:** Although both firms' numbers have been better over the last two years, they are statically negative. But Bharti Airtel's loss isn't as severe as Vodafone Idea's. But as compared to Vodafone Idea, Bharti Airtel's loss is less dramatic.

C. **Return on Assets (ROA):** Bharti Airtel's ROA is improving and is getting closer to zero, much like ROCE. Although it is still negative, Vodafone Idea's ROA has somewhat improved.

Bharti Airtel's increasing profitability portends better financial times ahead. In order to maintain long-term sustainability, Vodafone Idea must solve its profitability issues. Overall, Bharti Airtel's increasing profitability measures suggest that the company is better positioned for development in the future.

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