

lisha project.docx

 Delhi Technological University

Document Details

Submission ID

trn:oid::27535:96800402

Submission Date

May 20, 2025, 10:56 AM GMT+5:30

Download Date

May 20, 2025, 10:57 AM GMT+5:30

File Name

lisha project.docx

File Size

1.1 MB

32 Pages

4,134 Words

24,821 Characters

11% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

Filtered from the Report

- Bibliography
- Quoted Text
- Cited Text
- Small Matches (less than 8 words)

Match Groups

-  **42 Not Cited or Quoted 11%**
Matches with neither in-text citation nor quotation marks
-  **0 Missing Quotations 0%**
Matches that are still very similar to source material
-  **0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
-  **0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 10%  Internet sources
- 1%  Publications
- 2%  Submitted works (Student Papers)

Integrity Flags

0 Integrity Flags for Review

No suspicious text manipulations found.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A Flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Match Groups

- 42 Not Cited or Quoted 11%**
Matches with neither in-text citation nor quotation marks
- 0 Missing Quotations 0%**
Matches that are still very similar to source material
- 0 Missing Citation 0%**
Matches that have quotation marks, but no in-text citation
- 0 Cited and Quoted 0%**
Matches with in-text citation present, but no quotation marks

Top Sources

- 10% Internet sources
- 1% Publications
- 2% Submitted works (Student Papers)

Top Sources

The sources with the highest number of matches within the submission. Overlapping sources will not be displayed.

1	Internet	www.dspace.dtu.ac.in:8080	8%
2	Submitted works	Rahul Education on 2025-02-05	<1%
3	Internet	www.coursehero.com	<1%
4	Internet	ir.uew.edu.gh:8080	<1%
5	Internet	www.scribd.com	<1%
6	Submitted works	UCL on 2025-01-07	<1%
7	Submitted works	National Institute of Technology, Rourkela on 2016-04-10	<1%
8	Submitted works	Universidad TecMilenio on 2024-11-25	<1%
9	Internet	archive.org	<1%
10	Internet	www.sage.com	<1%

11

Publication

Hickman, Kent; Byrd, John; McPherson, Matt . "Essentials of Finance, Second Editi...

<1%

1. INTRODUCTION

The environment of current businesses is undergoing significant changes driven by increased competition, globalization, and rapid technological advancements. In response to these shifts—and challenges such as declining capital value and growing shareholder expectations—companies must adapt by rethinking how they manage aging business models, ownership structures, and operational strategies. One effective approach to address these issues is corporate restructuring.

- Reduces competitive pressure
- Leverages scale to drive costs down
- Boosts overall profitability
- Maximizes resource use and sharpens management practices
- Generates more revenue with minimal additional capital
- Opens doors to new international markets
- Signals proactive, opportunity-seeking strategy
- Builds up the company's economic clout

When two or more businesses join under the legal umbrella of one existing company, it's known as an absorption merger. In contrast, an acquisition occurs when one firm purchase another (often a controlling interest) without fully folding it into its structure.

The consolidation is generally divided into horizontal, vertical and big companies. Horizontal integration is when an alike company combined in the same industry. But in the case of vertical merger, we have two forms of companies that are combined. When a relevant line exists, the merger is called a big company.

Motive behind M&A are following by Patrick A. Gaughan: Author of "*Mergers, Acquisitions, and Corporate Restructurings*," –

- 1) When firms need to grow faster than internal expansion allows, they can either deepen their presence in current markets or break into new ones. Building up new capabilities in-house often demands significant time, personnel, and capital—luxuries some companies lack. In those situations, pursuing M&A lets them tap into another organization's existing infrastructure or technology almost immediately. By acquiring a business that already serves the desired product or geographic segment, a company can surge ahead in its growth trajectory and deliver shareholder value far more quickly and cost-effectively than by starting from scratch.
- 2) Enhanced profit margins often stem from combining complementary strengths, streamlining operations for maximum efficiency, and leveraging the cost advantages that come with larger scale.
- 3) When a firm branches out by merging with companies in unrelated industries, it's usually aiming to spread its risk. This approach—linking diverse businesses under one roof—is called a conglomerate merger.
- 4) By joining with a profit-making company, a loss-making firm can apply its carried-forward losses against the combined earnings—unlocking tax deductions it couldn't access on its own.
- 5) Greater market influence – the merged entity tightens its grip on the sector by cutting down rival numbers, boosting its pricing and negotiation leverage.
- 6) Synergistic financial gains – combining forces unlocks cost efficiencies and revenue boosts, delivering advantages such as:

1

- a. In case if the company is difficult to grow inside, they can combine or purchase other companies.
- b. Deploying surplus cash - If the company can use excessive funds and lack internal opportunities for growth, it is impossible for the company to grow outside the merger and acquisition.
- c. Depth capacity – The company receives stability of cash flows, which can give greater debt and reduced the risk of bankruptcy.
- d. Reduce finance costs.

Mergers and Acquisitions Planning

As a result of mergers and acquisitions, companies often achieve greater financial stability, which enhances their creditworthiness and allows them to secure funding at lower interest rates. For an M&A strategy to succeed, accurate valuation is essential. Equally important are steps such as strategic planning, identifying and evaluating potential target companies, conducting thorough financial assessments, and effectively integrating the acquired business-

1

- 1) Planning - The planning stage is the initial and critical phase of the merger and acquisition (M&A) process. It involves a thorough analysis of industry trends and identifying potential target companies. During this phase, the acquiring company gathers comprehensive data about the target, including its market share, capital structure, profitability, operations, and organizational culture.

The stages of the planning process are -

- a. Strategy - The acquiring company must clearly define its strategic objectives, such as market expansion, diversification, or access to new technology. This requires a careful evaluation of the company's own strengths and weaknesses to ensure that the acquisition aligns with its long-term goals.
 - b. Approaches- The company must also establish the specific approach it will take to execute the acquisition—whether through a friendly offer, a joint venture, or a strategic alliance.
- 2) Verification- The purpose of acquiring a company include achieving market power, establishing leadership in the industry, increase profitability, achieve cost savings, accelerate growth, and enhance managerialism. The acquiring company starts the

process of identifying targets. Once potential candidates are found, the next step is to create a shortlist of the most promising target companies.

- 3) Financial Evaluation - The third stage in the M&A process is financial evaluation. This stage involves a thorough assessment of the target company using the data and information gathered in earlier phases. It is also essential to assess its market position, organizational culture, employee capabilities, technological strengths, and important competencies. This evaluation ensures that the acquisition aligns with strategic objectives and minimizes future risks.
- 4) Integrated – Five rules specified by Peter Drucker (1981) for the integrated process are:
 - The acquiring and acquired companies should share common goals—such as technology, markets, or capabilities—so they can leverage synergies.
 - Technical assessment should be done to ensure that the target company technologies can be used effectively by the acquiring firm.
 - The acquiring company must respect the target company's products and customer base to maintain brand integrity and customer loyalty.
 - The acquiring company should give clear direction, processes, and leadership to help the acquired company complete the process smoothly.
 - Consistent internal communication—such as guidelines, reports, and shared progress is important throughout the integration process to ensure alignment and transparency.

1.1 Background

Table 1 tracks India's M&A activity from 1996 through 2025. Driven by economic liberalization and deregulation, foreign investors entered in droves—raising competitive pressure and prompting domestic firms to restructure. Deal values and volumes shifted year to year:

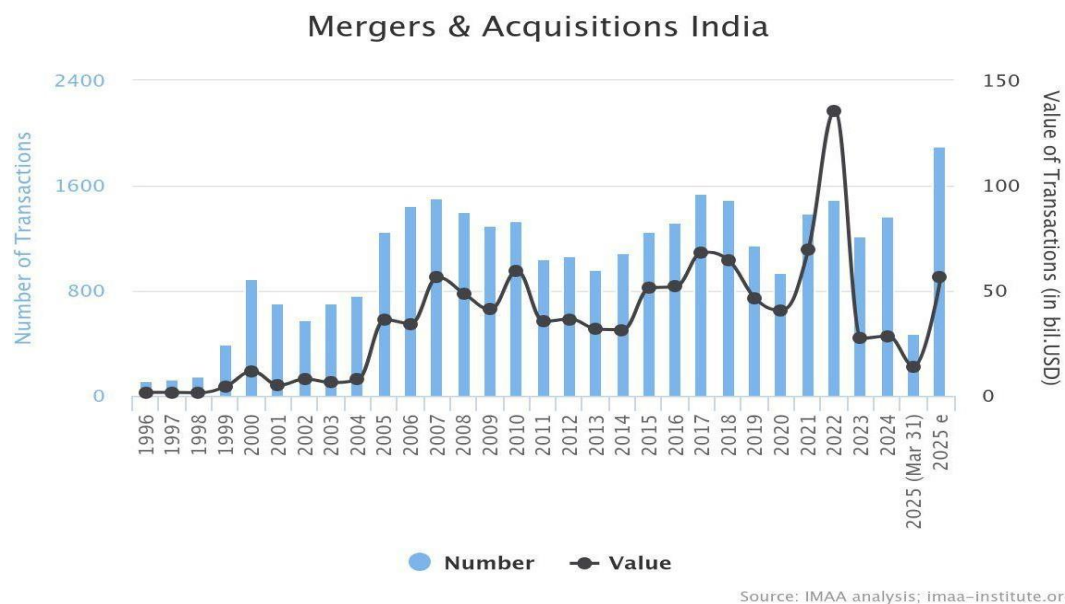
- 2022 saw the high-water mark: \$135.30 billion across 1,491 transactions.
- In 2023, activity cooled to \$27.33 billion and 1,217 deals.
- In 2024, both metrics ticked back up: \$28.44 billion in total value and 1,370 transactions.

Table 1.1: M&A Deals in India Since 1996

Mergers & Acquisitions India		
Category	Numbers	Value (Billion USD)
1996	115.00	1.60
1997	127.00	1.59
1998	156.00	1.49
1999	395.00	4.48
2000	892.00	11.67
2001	709.00	5.04
2002	582.00	7.95
2003	706.00	6.32
2004	763.00	7.74
2005	1,254.00	36.24
2006	1,449.00	34.33
2007	1,510.00	56.40
2008	1,402.00	48.63
2009	1,294.00	41.10
2010	1,330.00	59.52
2011	1,046.00	35.38
2012	1,072.00	36.55
2013	959.00	31.80
2014	1,087.00	31.47
2015	1,257.00	51.30
2016	1,316.00	52.02
2017	1,547.00	68.36
2018	1,494.00	64.30
2019	1,147.00	46.20
2020	939.00	40.70
2021	1,391.00	69.70
2022	1,491.00	135.30
2023	1,217.00	27.33
2024	1,370.00	28.44
2025 (Mar 31)	474.00	14.10
2025 e	1,896.00	56.42

(Source: <https://imaa-institute.org>)

Figure 1.1: Mergers and Acquisitions within India since -1996



(Source: <https://imaa-institute.org>)

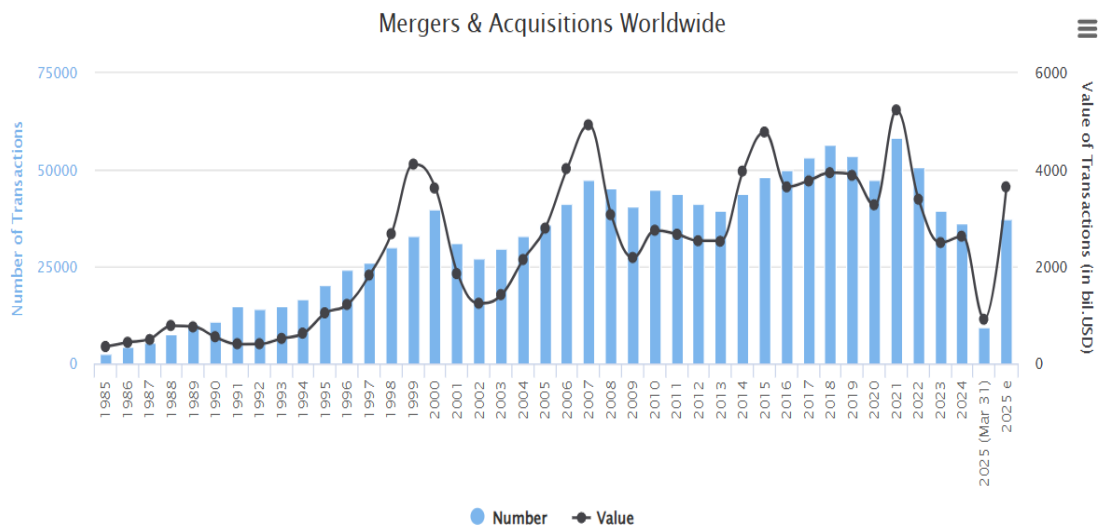
Mergers & Acquisitions in telecommunication industries

The India's telecom sector is among the world's most fiercely competitive, boasting the second-largest subscriber base at 1.18 billion users as of January 31, 2022. It also ranks second globally for internet traffic volume, handling roughly 750 million worth of data usage. This industry has been a key driver of India's economic development and digital inclusion. This network forms the backbone of India's Digital India initiative, bridging connectivity gaps in rural regions. The sector breaks down into three main categories: wireless services, fixed-line telephony, and internet access. With annual growth projected around 10.3%, major wireless operators include Airtel, Vodafone, Reliance Jio, Idea, Aircel, and BSNL. Intense rivalry keeps prices competitive but also squeezes margins—when Jio entered, several incumbents struggled to adapt to its low-cost, high-volume model.

Figures 2 and Table 2 illustrate global telecom M&A activity dating back to 1985.

In 2021, global telecom M&A hit its high point with 58,308 transactions valued at \$5,235 billion. By comparison, 2019 saw 712 deals worth \$77 billion, which then dipped to 611 transactions (totaling \$218 billion) in 2020—an overall slowdown in deal

count largely driven by the economic impact of the COVID-19 pandemic. Figure 1.2:
World-wide M&A deals - Telecommunication industries



Source: <https://imaa-institute.org>

Table 1.2: World-wide M&A deals - Telecommunication industries

Mergers & Acquisitions in Telecommunication Sector		
Category	Numbers	Value (Billion USD)
1985	2,676.00	347.00
1986	4,228.00	435.00
1987	5,279.00	506.00
1988	7,440.00	777.00
1989	10,135.00	758.00
1990	10,814.00	540.00
1991	14,722.00	397.00
1992	14,102.00	400.00
1993	14,772.00	516.00
1994	16,816.00	624.00
1995	20,278.00	1,039.00
1996	24,310.00	1,217.00
1997	26,227.00	1,824.00
1998	30,218.00	2,678.00
1999	33,132.00	4,116.00
2000	39,783.00	3,623.00

2001	31,047.00	1,866.00
2002	27,201.00	1,242.00
2003	29,573.00	1,411.00
2004	32,953.00	2,145.00
2005	36,025.00	2,794.00
2006	41,407.00	4,023.00
2007	47,455.00	4,920.00
2008	45,173.00	3,075.00
2009	40,710.00	2,187.00
2010	44,844.00	2,750.00
2011	43,976.00	2,668.00
2012	41,480.00	2,533.00
2013	39,568.00	2,536.00
2014	43,847.00	3,960.00
2015	48,052.00	4,779.00
2016	49,991.00	3,646.00
2017	53,302.00	3,777.00
2018	56,382.00	3,939.27
2019	53,594.00	3,893.91
2020	47,307.00	3,268.49
2021	58,308.00	5,235.65
2022	50,763.00	3,383.79
2023	39,603.00	2,495.06
2024	36,067.00	2,626.89
2025 (Mar 31)	9,367.00	911.63
2025 e	37,468.00	3,646.51

(Source: <https://imaa-institute.org>)

1.2 Problem Statement

When a newcomer challenges established firms, long-standing players may struggle to maintain their market position. To survive and thrive amid fierce rivalry, companies often pursue mergers or acquisitions. Such deals not only bolster competitive standing but also unlock cost savings, operational efficiencies, and access to new technologies and resources—fueling revenue growth without heavy capital outlays. They also ease entry into overseas markets and enhance the firm’s overall economic clout.

This study examines the post-merger performance of Vodafone-Idea, using their union as a case of corporate restructuring driven by privatization, deregulation, and global competition. Because M&A choices reshape budgets, capital structure, and strategic direction across every level of the organization, they demand careful evaluation before execution.

indicators.

1.3 Objective of the study

M&A acts as a catalyst for a company’s external expansion. In the telecom sector since 1985, such deals have represented about 8.4 % of total transaction value and 2.6 % of deal count. Because mid-market M&A remains a go-to restructuring tool, this study will focus on:

1. Assessing Vodafone’s key financial metrics before the merger
2. Evaluating Idea’s financial performance prior to consolidation
3. Analyzing the post-merger financial outcomes of the combined Vodafone-Idea entity

1.4 Scope of the Study

This examines merger between Vodafone and Idea to evaluate the structure. Additionally, it analyzes and compares the financial performance of both companies before and after the merger. For this purpose, financial data was collected for five years prior to and five years following the merger, for comprehensive comparative analysis.

2. LITERATURE REVIEW

This section reviews key studies on M&A, especially within the telecom sector, highlighting methods and post-deal performance:

Over the past two decades, researchers have explored how mergers reshape financial health and market dynamics in telecommunications. Bedi (2012) examined five Indian telecom firms that merged between 2000–2010, using profitability, liquidity, and solvency ratios together with paired-sample tests. The study found liquidity improvements but mixed effects on payment capacity, with no statistically significant change in average ratios post-merger.

Soni (2018) detailed the Idea-Vodafone integration, outlining its strategic drivers, industry impact, and benefits such as network consolidation and cost savings. Panigrahi & Joshi (2019) further analyzed the combined Vodafone-Idea entity, assessing its financial outcomes and market positioning.

Wilcox et al. (2009) surveyed 40 telecom M&A events involving 89 partners, testing hypotheses on diversification, deal valuation, and firm size. They reported that related acquisitions often yielded superior market value gains, and that both large-to-small and small-to-large alliances could be advantageous.

Valuation techniques also feature prominently in the literature. Comparative analyses (e.g., Aydin 2015) weigh discounted cash flow against market- and income-based approaches, often finding DCF delivers more precise synergy estimates. Appraisal best practices stress honest assessment of assets and thorough understanding of business operations.

Cross-sector and cross-border M&A bring their own challenges: Jay & Ramesh (2010) tracked post-merger performance in India's oil & gas industry, while Ashu et al. (2011) showed that Indian firms in cross-border deals saw leverage and liquidity pressures due to cultural and market unfamiliarity.

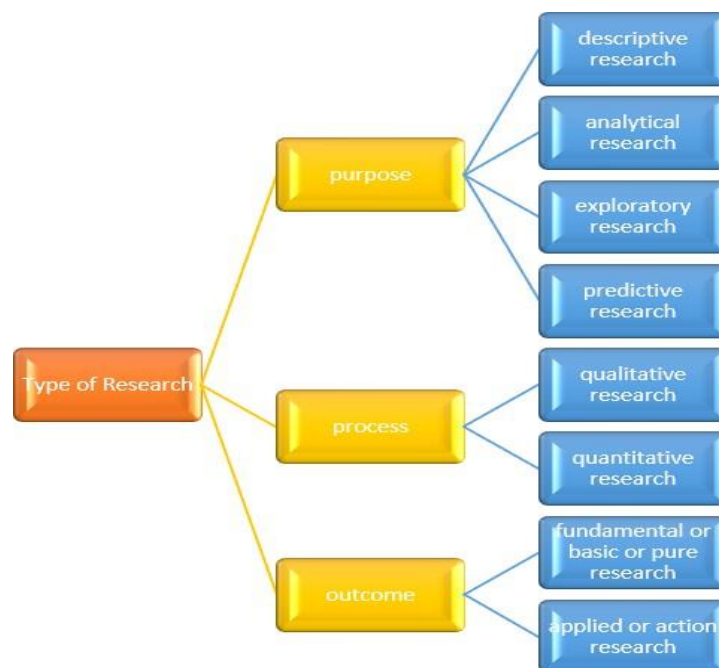
Finally, Anuradha & Manisha (2017) applied two-way ANOVA to compare telecom and service-sector M&A, confirming that profitability and liquidity shifts vary significantly by industry context. Collectively, these works inform our approach to evaluating Vodafone-Idea's merger, from financial ratio analysis to statistical testing of performance changes.

3. RESEARCH METHODOLOGY

This research adopts a quantitative, analytical case approach. The primary objective is to assess financial impact of the merger between Vodafone and Idea by analyzing their financial performance before and after the merger. Research methodology relies on the problem, which is extremely important for successful research. Research must be systematically solved, scientifically and directly or indirectly, through specific practical problems. As shown, future research possibilities must be effective. These are all traits of good research. This study must be determined clearly and accurately by the reasons for the chosen decision and election, while others must evaluate them.

The research is quantitative in nature, as it involves the use of numerical data derived from financial statements and ratio analysis. It is also analytical, focusing on interpreting financial trends and performance indicators. Additionally, it uses a case study method, examining the Vodafone–Idea merger as a representative example of mergers in the telecommunications sector. This type of study does not control variables and uses frequency, mean, and statistical methods. Analytical studies were analyzed using supplementary data. Analysis, a type of study, is used based on easily accessible facts and information.

Figure 3.1: Different types of Research



(Source: Marketing Research: An Applied Orientation, 6th Edition (2009))

The study employs both quantitative and qualitative approaches. Qualitative methods delve into participants' underlying motivations and behaviors, while quantitative methods gather numerical data from large groups to test specific hypotheses.

On the other hand, analytical research seeks to uncover the causes behind observed phenomena, and basic (or fundamental) research aims to develop new theories or validate existing ones.

The process is explained below:

1. Literature review: This research began with a review of academic and industry literature on merger and acquisitions, focusing on the telecommunications sector which includes post-merger performance evaluation using financial ratios (profitability, liquidity, solvency, and efficiency), The impact of Jio's market entry on existing telecom firms in India.

2. Working hypotheses: It was assumed that the merger between Vodafone and Idea would lead to improved financial performance, reflecting the anticipated benefits of operational synergy and market.

3. To assess whether the Vodafone–Idea merger produced measurable changes in financial health, we'll use a pre-post comparison design based on key ratios.

- **Independent variable:** Merger status (pre-merger vs. post-merger periods)
- **Dependent variables:**
 - Net profit margin
 - Current ratio
 - Return on assets (ROA)
 - Debt-to-equity ratio
 - Asset turnover ratio

4. Collection of data: As soon as the sample design is determined, you must start with data collection. Data collection was done using the secondary data which includes the

Data collected for 5 years before the merger and 5 years after, Audited financial statements of Vodafone and Idea, Annual reports and company filings, Public financial databases and investor presentations.

5. Execution of the project: The research was executed by calculation of selected financial ratios for each year in the pre- and post-merger periods, Tabulation and graphical representation of data, Application of the paired t-test using excel to test the

significance of observed changes in the financial performance, Interpretation of p-values to accept or reject the null hypothesis.

7 6. Interpretation: Result of the paired t-test are analyzed for the effectiveness of the merger. If p-values were found to be less than 0.05, it indicate that there is a statistically significant difference between pre- and post-merger performance, which leads to rejection of the null hypothesis.

4. ANALYSIS, DISCUSSION AND RECOMMENDATION

4.1 Data collection

All data for this study comes from secondary sources—primarily Screener.in—to guarantee accuracy and relevance. We employ ratio-scale measurements and focus on three core analytical categories:

1. **Profitability** **Ratios**
Evaluate how efficiently a firm turns sales and assets into earnings, revealing overall operational effectiveness.
2. **Liquidity** **Ratios**
Compare short-term assets against short-term obligations to gauge the company's ability to meet near-term bills.
3. **Leverage** **Ratios**
Examine the proportion of debt versus equity financing to understand how much of the company's assets are funded by borrowed capital.

By tracking these ratios over time and benchmarking them against industry norms, we can pinpoint strengths and weaknesses in management performance and financial health.

Profitability Ratio

Profit represents the surplus when a company's revenues exceed its costs over a period. Since boosting profit is central to any firm's goals, managers track profitability closely using two types of ratios:

1. **Sales-based margins**
 - **Gross Profit Margin:** Shows the share of revenue remaining after covering production costs.
 - **Operating Profit Margin:** Reflects efficiency after accounting for operating expenses.
 - **Net Profit Margin:** Indicates the portion of sales that translates into final earnings.

2. Investment-based returns

- **Return on Equity (ROE):** Measures how well shareholders' funds generate profit.
- **Return on Capital Employed (ROCE):** Gauges overall capital efficiency in producing returns.

By comparing gross and net margins, you spot cost trends: if gross margin rises but net margin falls (or holds steady), operating expenses are eating into earnings. Likewise, a shrinking gross margin—perhaps from higher input costs or weaker sales—often presages lower net profit unless overheads are cut.

Meanwhile, ratios like ROA, ROE, and ROCE reveal how adeptly a firm turns assets and equity into profit—a critical signal for investors assessing capital effectiveness.

Table 4.1: Profitability ratio formulas:

Ratios	Formulas
Profitability Ratios	
Gross Profit Margin	Gross Profit / Sales
Operating Margin	Operating Profit / Sales
Net Profit Margin	Net Profit/ Total Revenue
Return on Net Worth/Equity	Net Income / Share Holder's equity

(Source: Financial Management 12th edition (2007))

Liquidity Ratio

It is essential for a company to maintain an good level of liquidity—not too low and not excessively high. Insufficient liquidity can prevent the company from fulfilling its short-term obligations, damaging the reputation, creditness, and loss of creditor support. On the other hand, excessive liquidity can also be inefficient, as assets may not contribute to value creation or profitability.

Liquidity is measured using below two key ratios:

The current ratio compares a company's short-term assets against its short-term obligations. A higher ratio means the firm has ample liquid resources to settle upcoming debts, giving lenders and suppliers confidence in its ability to pay.

The Quick Ratio, which excludes inventory and other low liquid current assets, focusing only on those that can be converted into cash quickly.

However, a high quick ratio does not always guarantee smooth liquidity if the company faces delays in receivables. Conversely, a lower quick ratio might not be a red flag if the company has an efficient inventory turnover.

Table 4.2: Liquidity Ratios

Ratios	Formulas
Liquidity Ratios	
Current Ratio	Current Assets / Current Liabilities
Quick Ratio	Current Assets - Inventories/ Current Liabilities

(Source: Financial Management 12th edition (2007))

Leverage Ratio

Leverage ratios reveal how much of a company's asset base is funded by borrowed money, highlighting its long-term solvency risk. Coverage ratios, on the other hand, assess the firm's ability to meet its interest payments. Ideally, you want a healthy coverage level—too high may signal under-used debt capacity, while too low suggests the company is over-leveraged and may struggle with its interest burden.

Table 4.3: Leverage Ratios

Ratios	Formulas
Leverage Ratios	
Debt to Equity	Total debt / Total shareholder's equity
Interest Coverage Ratio (%)	EBITDA / Interest

(Source: Financial Management 12th edition (2007))

We compiled a decade's worth of financials—five years before and five years after the Vodafone-Idea merger—to power our evaluation. From that dataset, we pulled the specific figures needed to calculate earnings efficiency metrics, short-term solvency measures, and debt-management ratios.

Vodafone Five Year performance data

Table 4.4: Vodafone Profit & Loss Statement

Vodafone - Profit and Loss Statement					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Sales	22407	26519	31571	35949	35576
Expenses	16439	18237	20771	24281	25348
Operating Profit	5969	8282	10800	11668	10227
OPM %	0.27	0.31	0.34	0.32	0.29
Other Income	131	247	497	641	746
Interest	1045	966	1060	1803	4010
Depreciation	3478	4519	5304	6256	7827
Profit before tax	1577	3044	4933	4250	-863
Tax %	0.36	0.35	0.35	0.36	-0.54
Net Profit	1011	1968	3193	2728	-400
EPS in Rs	0.93	1.8	2.7	2.3	-0.34
Dividend Payout %	0.1	0.07	0.07	0.08	0

(Source: Screener, last accessed on 18/05/2025)

Table 4.5: Vodafone Balance Sheet

Vodafone - Balance Sheet					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Equity Capital	3,314	3,320	3,598	3,601	3,605
Reserves	10,989	13,205	19,429	19,950	21,127
Borrowings	14,046	20,637	26,859	40,541	55,055
Other Liabilities	8,029	9,396	10,580	16,034	16,881
Total Liabilities	36,378	46,557	60,467	80,126	96,668
Fixed Assets	29,160	29,602	35,540	65,190	76,763
CWIP	881	11,419	5,141	6,040	7,535
Investments	1,028	216	11,527	3,471	6,378
Other Assets	5,309	5,321	8,260	5,425	5,991
Inventories	73	68	71	107	59
Trade receivables	960	801	979	1,142	1,314
Cash Equivalents	143	188	1,554	769	83
Loans n Advances	527	314	261	98	93
Other asset items	3,606	3,950	5,395	3,308	4,443
Total Assets	36,378	46,557	60,467	80,126	96,668

(Source: Screener, last accessed on 18/05/2025)

Idea five year performance data shown below

Table 4.6: Idea Balance Sheet

Idea Cellular - Balance Sheet					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Total Noncurrent assets(A)	330,890	440,632	427,070	756,285	890,721
Total Current assets (B)	363,780	465,574	156,077	44,969	76,325
Total Assets (A+B)	694,670	906,206	583,147	801,254	967,046
Total equity(A)	143,033	165,250	210,742	235,504	247,322
Total non-current liabilities (B)	140,316	213,632	180,117	409,863	549,110
Total current liabilities (C)	363,780	465,574	192,287	155,887	170,615
Total Equity and Liabilities (A+B+C)	647,129	844,456	583,146	801,254	967,047

(Source: Idea Financial Statements)

Table 4.7: Idea Profit & Loss Statement

Idea Cellular - Profit and Loss Statement					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Revenue from operations	224,074	264,320	315,709	359,494	355,757
Other income	502	869	4,697	2,131	3,069
TOTAL INCOME	224,576	265,189	320,406	361,625	358,826
Total Expenditure	164,531	181,852	207,592	239,818	252,995
PROFIT/(LOSS) BEFORE TAX	15,773	30,442	49,325	42,501	-8,632
PROFIT/(LOSS) AFTER TAX	10,109	19,678	31,929	27,281	-3,997

(Source: Idea Financial Statements)

Vodafone-Idea 5-year performance data

Table 4.8: Vodafone-Idea Profit & Loss statement

Vodafone - Idea Profit and Loss Statement							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Sales	28,279	37,092	44,958	41,952	38,516	42,177	42,652
Expenses	22,224	32,976	30,042	25,006	22,547	25,424	25,580
Operating Profit	6,054	4,116	14,916	16,946	15,968	16,753	17,072
OPM %	21%	11%	33%	40%	41%	40%	40%
Other Income	703	1,789	-36,964	-19,563	363	354	917
Interest	4,847	9,545	15,393	17,998	20,981	23,354	25,766
Depreciation	8,409	14,536	24,356	23,638	23,584	23,050	22,634
Profit before tax	-6,499	-18,175	-61,797	-44,253	-28,234	-29,298	-30,410
Tax %	-36%	-20%	20%	0%	0%	0%	3%
Net Profit	-4,168	-14,604	-73,878	-44,233	-28,245	-29,301	-31,238

(Source: Screener, last accessed on 18/05/2025)

Table 4.9: Vodafone-Idea Balance Sheet

Vodafone - Idea Balance Sheet							
	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Mar-24
Equity Capital	4,359	8,736	28,735	28,735	32,119	48,680	50,120
Reserves	22,903	50,899	-22,756	-66,963	-94,084	123,039	154,287
Borrowings	57,985	125,940	114,996	201,720	213,761	237,766	243,809
Other Liabilities	13,264	44,078	105,942	39,986	42,233	43,836	45,355
Total Liabilities	98,511	229,652	226,918	203,478	194,029	207,243	184,997
Fixed Assets	79,692	177,800	185,836	167,490	156,819	156,255	140,125
CWIP	3,585	5,103	1,138	606	364	17,876	18,189
Investments	7,290	8,239	1,979	4	5	6	0
Other Assets	7,944	38,511	37,964	35,378	36,841	33,105	26,683
Inventories	37	4	2	1	2	16	1
Trade receivables	887	3,300	3,094	2,507	2,444	2,164	2,195
Cash Equivalents	29	991	2,663	2,216	3,497	855	536
Loans n Advances	882	283	219	197	638	130	167
Other asset items	6,108	33,933	31,985	30,457	30,260	29,940	23,784
Total Assets	98,511	229,652	226,918	203,478	194,029	207,243	184,997

(Source: Screener, last accessed on 18/05/2025)

4.2 Data Analysis

After gathering the figures, we move on to interpretation. We'll apply ratio analysis to identify trends and financial health, then use paired-sample statistical tests to determine if the differences before and after the merger are significant.

We frame our paired-sample test around these propositions:

- **Null hypothesis (H_0):** The merger had no measurable effect on the acquirer's financial metrics.
 - **Alternative hypothesis (H_1):** The merger brought about a significant change in those metrics.
1. First, we examine Vodafone's pre-merger performance by calculating its key profitability, liquidity, and leverage ratios over the five-year period before consolidation.

Table 4.10: Vodafone Ratios

Vodafone Ratios					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Profitability Ratios					
Gross Profit Margin (%)	31.36	27.13	26.86	25.71	27.40
Operating Margin (%)	27.96	7.00	4.65	4.45	7.82
Net Profit Margin (%)	0.96	154.52	13.62	-9.82	-13.22
Return on Net worth/Equity (%)	-2.67	-5.67	8.65	-5.67	-2.67
Liquidity Ratios					
Current Ratio(%)	0.74	0.99	0.69	0.84	1.00
Quick Ratio (%)	2.00	1.00	0.53	0.84	1.00
Leverage Ratios					
Debt to Equity (%)	0.57	0.41	0.52	0.67	0.63
Interest Coverage Ratios (%)	0.00	1.26	1.52	0.00	0.00

(Source: Screener, last accessed on 18/05/2025)

1) Financials of Idea before mergers using ratios: Below table is showing the profitability ratio, liquidity ratio and leverage ratio of Idea.

Table 4.11: Idea Ratios

Idea Cellular Ratios					
	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17
Profitability Ratios					
Gross Profit Margin (%)	5.80	9.95	13.67	11.13	5.83
Net Profit Margin (%)	3.70	6.45	8.85	7.27	-2.37
Return on Net worth/Equity (%)	7.06	11.90	13.86	11.58	-1.16
Liquidity Ratios					
Current Ratio (%)	1.00	1.00	0.89	0.29	0.45
Quick Ratio (%)	1.00	1.00	0.88	0.28	0.45
Leverage Ratios					
Debt to Equity (%)	0.86	0.58	1.57	2.15	2.09
Interest Coverage Ratio (%)	2.66	4.95	5.72	3.33	0.68

(Source: Screener, last accessed on 18/05/2025)

2) Study of financials of Vodafone and Idea before merger using the ratios: The below table showing the profitability ratio, liquidity ratio and leverage ratio of Vodafone and Idea merger.

Table 4.12 Vodafone-Idea Ratios

Vodafone & Idea Merger Ratios					
	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar
Profitability Ratios					
Gross Profit Margin (%)	29.65	22.60	12.87	35.48	40.80
Operating Margin (%)	7.65	-7.10	-26.31	-18.69	-15.53
Net Profit Margin (%)	-2.30	-15.87	-39.90	-165.11	-105.98
Return on Net worth/Equity (%)	-1.61	-15.28	-24.48	-1,235.44	0.00
Liquidity Ratios					
Current Ratio (%)	0.45	0.94	0.34	0.17	0.21
Quick Ratio (%)	0.44	0.94	0.34	0.17	0.21
Leverage Ratios					
Debt to Equity (%)	2.09	2.09	1.82	16.11	-4.12
Interest Coverage Ratios (%)	0.68	-0.42	-1.03	-0.55	-0.36

(Source: Screener, last accessed on 18/05/2025)

3) Analysis which are obtained after the paired t-test.

Table 4.13: Paired T-test Result

t-Test: Paired Two Sample for Means		
	Post-Merger	Pre-Merger
Mean	-16.8944444	3.90346667
Variance	1177.011078	21.4664038
Observations	10	10
Pearson Correlation	-0.81039475	
Hypothesized Mean Difference	0	
df	8	
t Stat	-1.63509973	
P(T<=t) one-tail	0.070333749	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.140667498	
t Critical two-tail	2.306004135	

(Source: Own analysis)

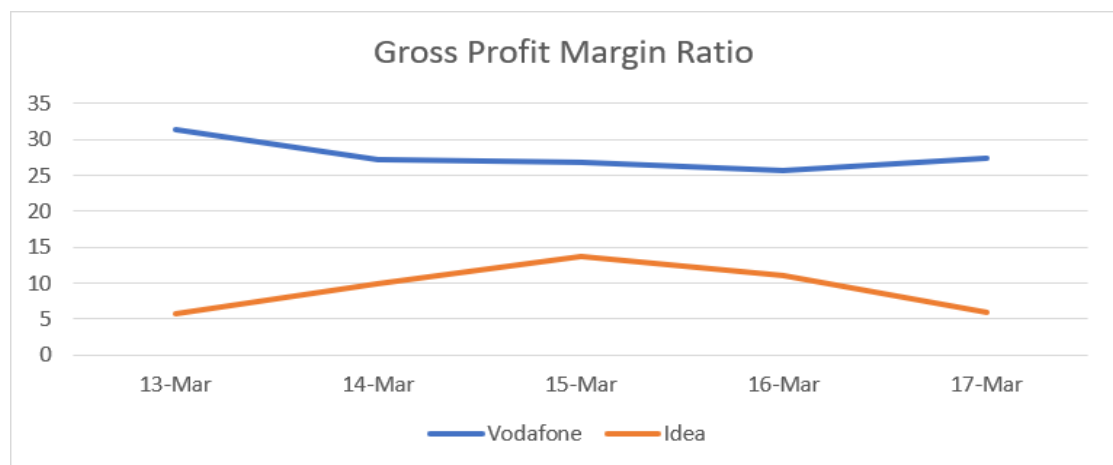
4.3 Finding and Recommendations

The analysis reveals how key financial metrics shifted before versus after the Vodafone-Idea merger. We looked at profitability (gross margin, operating margin, net profit margin, ROE), leverage (debt-to-equity, interest coverage), and liquidity (current and quick ratios). Below, a 2-D chart maps each ratio's trajectory to show the merger's impact on both firms.

Gross Profit Margin

Gross profit equals total sales minus production costs, showing how effectively the company turns raw materials into finished goods. A higher gross profit margin indicates stronger production efficiency.

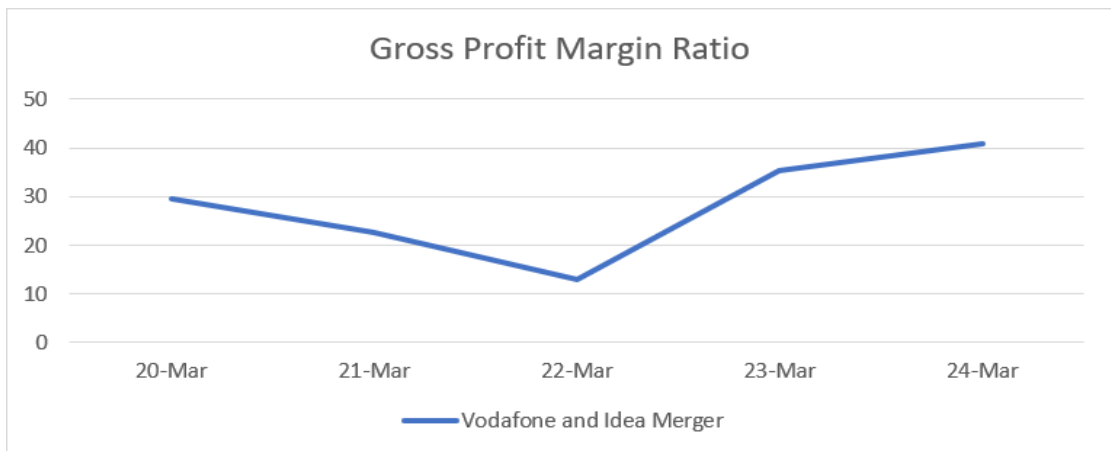
Figure 4.3: Gross Profit Margin (Pre-merger)



(Source: Own analysis)

The Gross profit margin shown in the above diagram for both the companies prior to the merger, showing that the efficiency of producing one unit of product is more for Vodafone than Idea.

Figure 4.4: Gross Profit Margin Ratio (Post-merger)



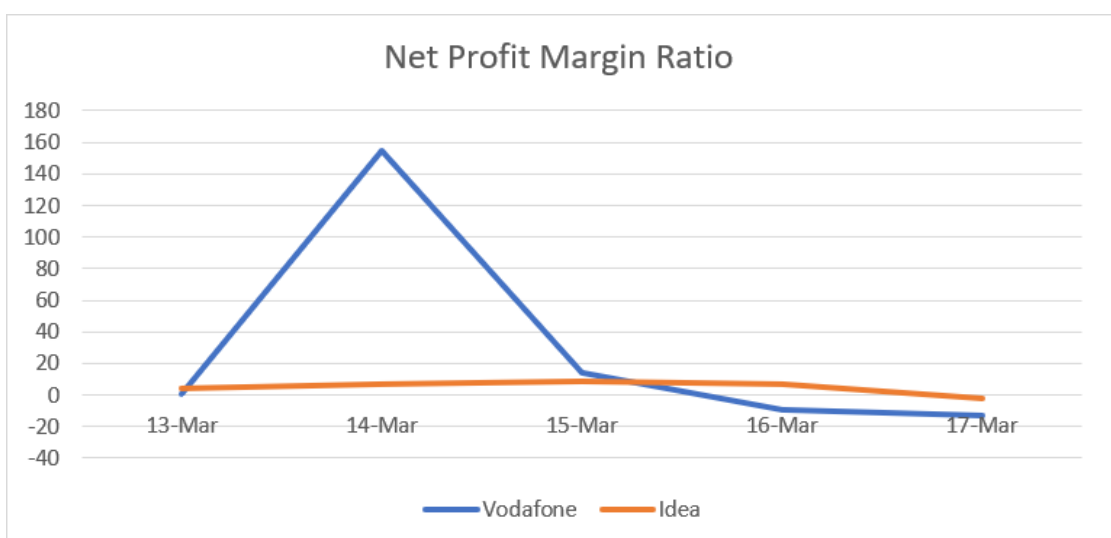
(Source: Own analysis)

Post-merger, the chart shows an immediate dip in Vodafone-Idea's gross margin—indicating a short-term drop in per-unit production efficiency—but by the second year after consolidation, the margin begins to climb again.

Net Profit Margin

Net profit margin compares a company's after-tax earnings to its total revenue, revealing how efficiently it converts sales—after accounting for production, selling, and administrative costs—into bottom-line profit.

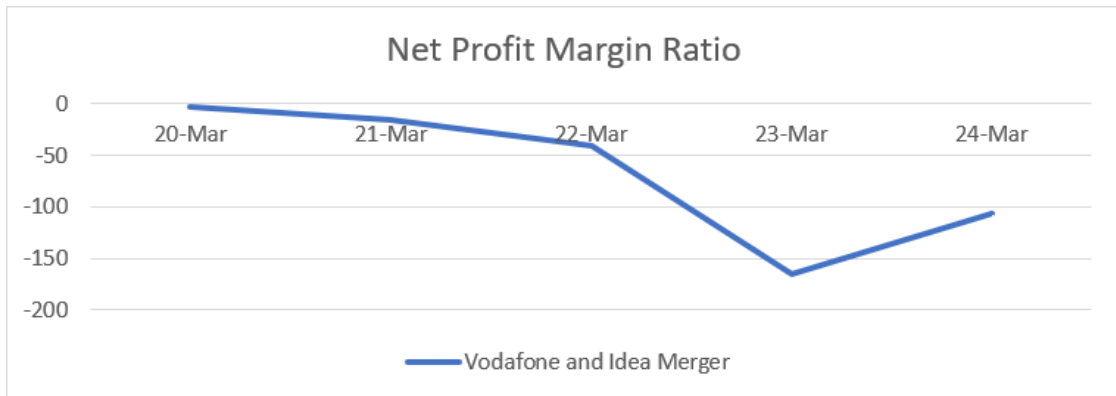
Figure 4.5: Net Profit Margin Ratio (Pre-merger)



(Source: Own analysis)

Before the merger, Vodafone's net profit margin showed a steady decline from 2013 through 2017, while Idea's net margin stayed comparatively flat over the same period.

Figure 4.6: Net Profit Margin Ratio (Post-merger)



(Source: Own analysis)

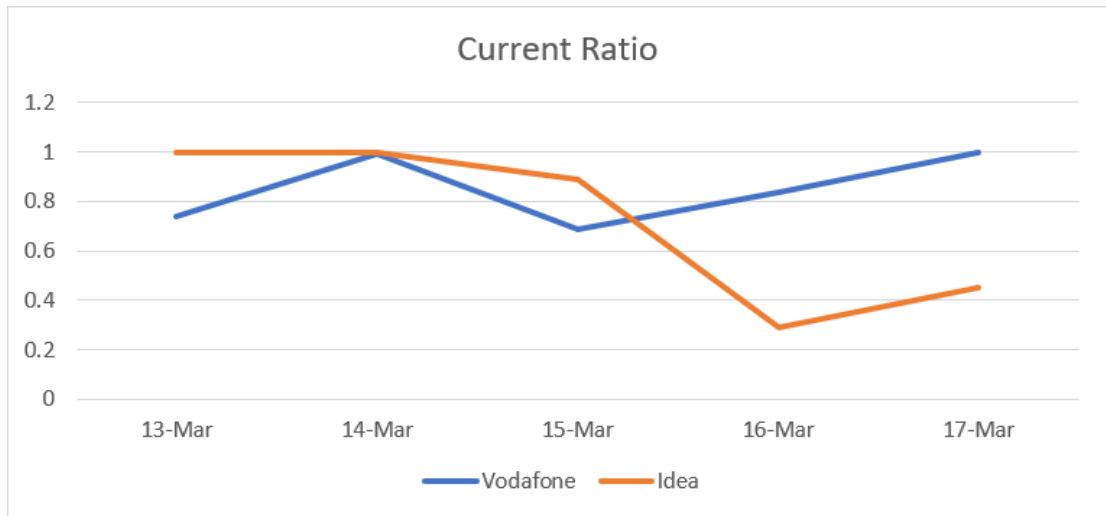
Immediately after the merger, Vodafone-Idea's net profit margin dips, but as the new entity settles in, it rebounds and shows a clear upward trend by the fourth year.

Current and Quick Ratio

Current and quick ratios both measure liquidity, but at slightly different depths:

- **Current ratio:** Compares all short-term assets to short-term debts. A higher number means more buffer to cover upcoming payables, reassuring creditors.
- **Quick ratio:** Excludes inventory and other slower-moving assets, focusing only on cash, receivables, and marketable securities. A quick ratio of 1.0 or above signals you can meet obligations immediately without relying on stock turn.

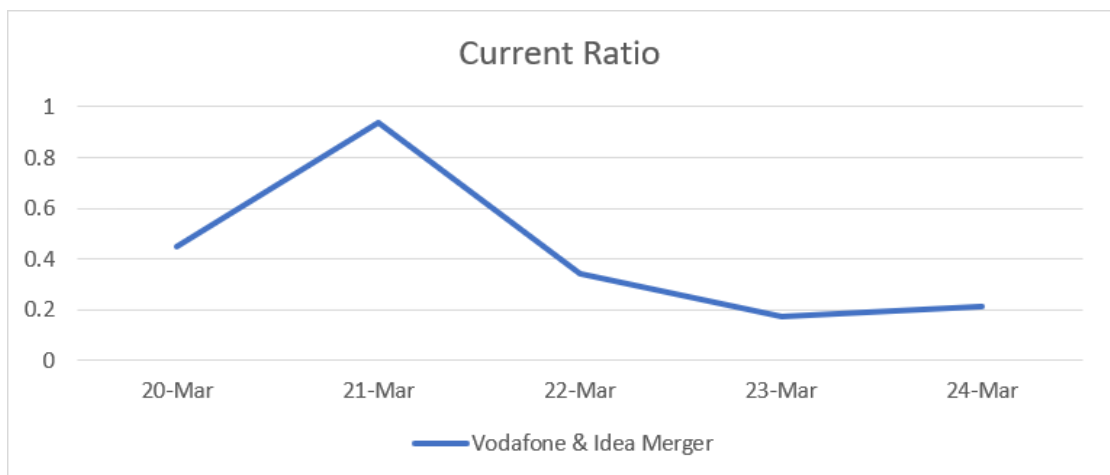
Figure 4.7: Current ratio (Pre- merger)



(Source: Own analysis)

Before the merger, Idea's current ratio slid each year from 2013 through 2017—signaling shrinking liquidity and potential difficulty covering short-term bills—while Vodafone consistently maintained enough assets to meet its immediate obligations.

Figure 4.8: Current Ratio (Post-merger)



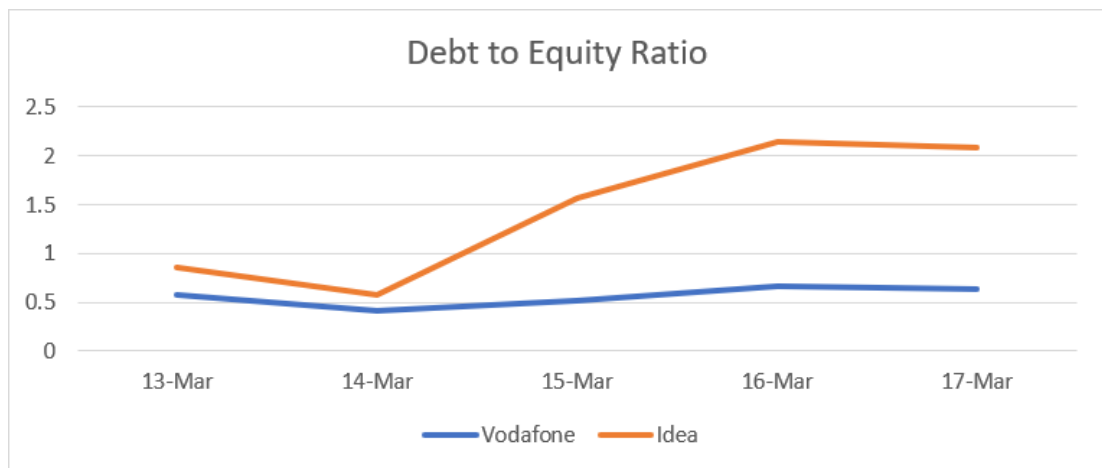
(Source: Own analysis)

After the merger, Vodafone-Idea's current ratio trends downward, indicating that the combined entity may not hold enough short-term assets to cover its upcoming obligations.

Debt to Equity Ratio

The debt-to-equity ratio shows the limit upto which companies depend on debts for financing assets.

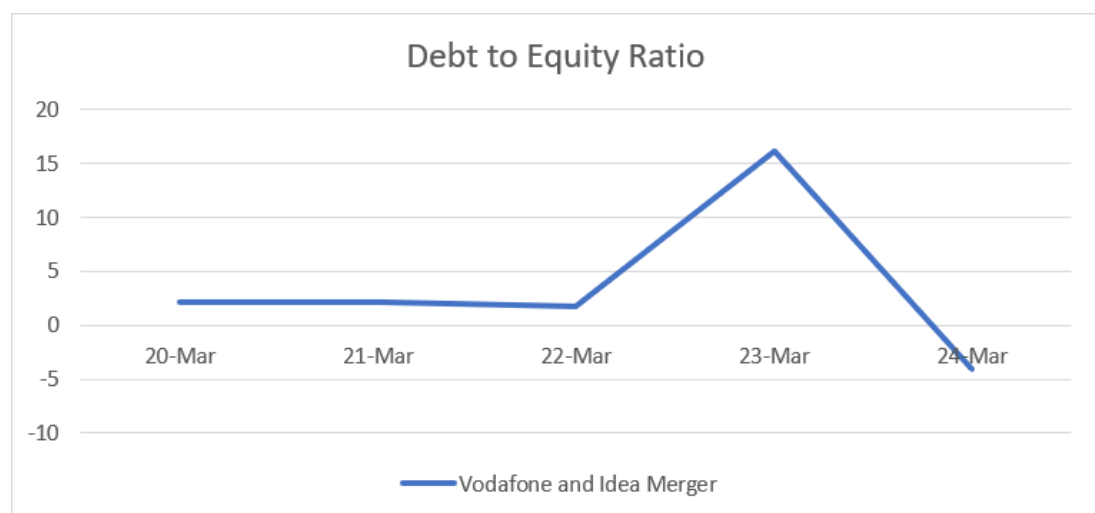
Figure 4.9: Debt to Equity Ratio (Pre-merger)



(Source: Own analysis)

Before the merger, Vodafone's debt-to-equity ratio held steady, while Idea's ratio rose year after year, indicating growing reliance on borrowed funds.

Figure 4.10: Debt to Equity Ratio (Post-merger)



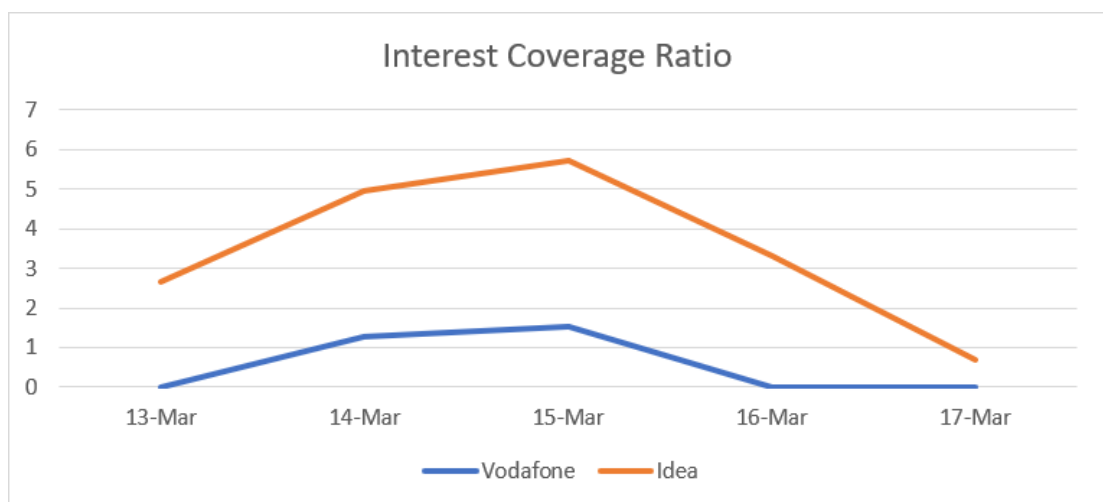
(Source: Own analysis)

Post-merger, the debt-to-equity ratio for Vodafone-Idea stayed flat for the first three years, spiked in 2020, and then fell into negative territory in 2021—indicating the firm’s liabilities exceeded its equity at that point.

Interest Coverage Ratio

Coverage ratios gauge how well a company can meet its interest payments. A robust coverage ratio means interest expenses are comfortably covered—but an excessively high ratio can suggest the company is under-leveraged. Conversely, a low coverage ratio signals the firm may be over-burdened by debt and could struggle to pay interest.

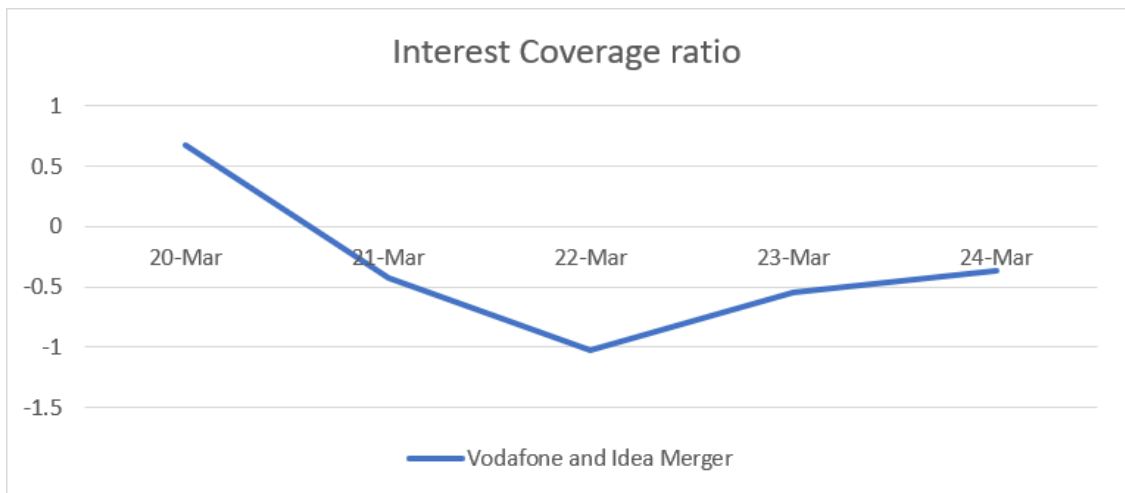
Figure 4.11: Interest Coverage Ratio (Pre-merger)



(Source: Own analysis)

Before the merger, the chart illustrates that Idea Cellular enjoyed a higher interest coverage ratio than Vodafone, indicating stronger ability to service its debt interest obligations.

Figure 4.12: Interest Coverage Ratio (Post-merger)



(Source: Own analysis)

After the merger, Vodafone-Idea's interest-coverage dipped steadily for three years, then began climbing again starting in 2020.

Hypotheses Testing

To assess Vodafone-Idea's post-merger performance, we conducted a paired-sample t-test comparing the acquirer's latest financial year with the merged entity's first full year. Table 4.13 presents the test results. Since the p-value exceeds the 0.05 threshold, we reject the null hypothesis. In other words, there is a statistically significant difference between the company's financial metrics before and after the merger.

4.4 Limitation

1. This study assumes past financial trends would have continued uninterrupted, without accounting for disruptions like the COVID-19 shock.
2. Our review covers only a five-year window; broader literature suggests that assessing merger effects over a longer timeframe can yield deeper insights.

5. CONCLUSION

India's telecom market is intensely competitive, with every operator vying for market share. Faced with mounting rivalry and the entry of new players, Vodafone and Idea merged to secure economic gains unattainable on their own. Such consolidations deliver cost savings, operational efficiencies, tax advantages, and enhanced market valuation—provided the deal's benefits outweigh its expenses.

Our analysis—using ratio metrics and paired-sample t-tests—shows that while Vodafone-Idea saw higher absolute profits post-merger, operating and net margins initially dipped, suggesting integration costs outpaced revenues. Liquidity remained strong overall, but leverage rose as the combined firm financed growth through debt. Interest coverage weakened briefly before improving, and the statistical test confirms these shifts are significant.

In sum, the merger's synergies may take time to fully materialize. Though there's no dramatic upside right away, the combined entity is well-positioned for long-term efficiency gains, stronger capital structure, and a more robust competitive stance in the years ahead.