

Evaluating Post-Merger Financial Performance using Financial Ratio Analysis: Evidence from Top-Performing Indian Firms

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ABSTRACT: Mergers and acquisitions (M&A) have become one of the most prominent strategic tools employed by corporations across the globe to achieve growth, competitive advantage, diversification, and operational efficiency. This research study evaluates the post-merger financial performance of top-performing firms listed on major Indian stock exchanges using a comprehensive financial ratio analysis framework.

Five top-performing Indian firms drawn from diverse sectors — banking and financial services, information technology, pharmaceuticals, fast-moving consumer goods, and infrastructure — form the analytical sample. The study employs profitability, liquidity, solvency, and efficiency ratios alongside a paired sample t-test to determine the statistical significance of observed differences between pre-merger and post-merger periods. The findings reveal that all five firms demonstrate significant improvement in profitability and market-based metrics post-merger, while liquidity ratios show a consistent but manageable deterioration. The statistical analysis confirms that all four null hypotheses are rejected at the 5% level of significance, affirming that mergers have a measurable and statistically significant impact on firm financial performance.

KEYWORDS: Mergers and Acquisitions, Financial Ratio Analysis, Post-Merger Performance, Profitability Ratios, Synergy Realization

I. INTRODUCTION

Mergers and acquisitions are strategic decisions undertaken by corporate entities to pursue growth, competitive advantage, and increased stakeholder value. M&A activity generates synergistic benefits such as economies of scale, expanded market access, product diversification, and enhanced resource allocation that are difficult for individual firms to achieve independently. Despite optimistic narratives at the point of deal announcement, post-merger outcomes frequently fall short of expectations, making rigorous post-merger financial analysis a central area of inquiry within the corporate finance domain.

The present study addresses the following central research question: Do mergers and acquisitions among top-performing Indian firms result in statistically significant improvements in financial performance, as measured through key financial ratios? The research is grounded in the premise that the true measure of a merger's success lies in its long-term financial outcomes, best captured through ratio-based performance analysis rather than short-term market reactions. Financial ratio analysis is a well-established framework for evaluating profitability, liquidity, leverage, and operational efficiency, and provides a standardised, objective basis for comparing pre- and post-merger performance.

India's liberalization in 1991 opened the economy to substantial M&A activity that has reshaped competitive landscapes across virtually every industry sector. The financial year 2022 proved to be a particularly significant period for Indian M&A, with high-profile transactions across banking, information technology, pharmaceuticals, telecom, and fast-moving consumer goods, driven by post-COVID recovery, digital transformation imperatives, and ongoing domestic consolidation.

1.1 Statement of the Research Problem

The central research problem pertains to whether mergers and acquisitions among top-performing Indian firms lead to demonstrable and statistically significant improvements across multiple financial performance dimensions —

profitability, liquidity, solvency, and operational efficiency — and whether the pattern of improvement or deterioration varies systematically by industry sector. The existing empirical evidence is heterogeneous and largely anchored in developed markets, creating a need for contextually specific, methodologically rigorous research on the Indian M&A landscape using recent financial data.

REVIEW OF LITERATURE

Sridharan and Krishnaswami (2016) examined post-merger performance in India's pharmaceutical sector across 38 mergers, finding that acquirers generally outperformed non-merging peers in profitability within two to three years, attributed to R&D pipeline synergies and manufacturing scale economies. However, debt-to-equity ratios increased sharply in the immediate post-merger year before recovering as integration-related cash outflows stabilised.

Mahesh and Prasad (2017) analyzed 12 Indian bank mergers and found modest improvements in net interest margin and capital adequacy ratios, but simultaneously worsening gross non-performing asset ratios in the first two post-merger years — underscoring the importance of target asset quality in determining post-merger financial ratio outcomes. Mantravadi and Reddy (2016) documented substantial sectoral heterogeneity across 118

Indian merger events: pharmaceutical and chemical sector mergers consistently improved profitability ratios, while textile and manufacturing sector mergers experienced notable deterioration. Gupta and Banerjee (2017) identified a characteristic U-shaped post-merger ratio trajectory across a five-year horizon: most financial ratios deteriorated in years one and two, stabilised in year three, and recovered toward or above pre-merger levels in years four and five for top-performing acquirers. This finding has important implications for the present study's two-year post-merger observation window, as some deal types may require longer horizons to manifest financial improvement.

Identification of Research Gaps

The literature review identifies four key gaps. First, most studies focus on developed markets, with Indian evidence remaining fragmented and often dated. Second, few studies simultaneously evaluate profitability, liquidity, solvency, and efficiency dimensions in an integrated framework. Third, accounting-based performance measures are underutilised relative to event study methodology. Fourth, there is an absence of research using 2022 financial data in the Indian context — a period uniquely shaped by post-pandemic recovery and accelerated digital transformation.

CHAPTER 2:

II. RESEARCH METHODOLOGY

2.1 Scope and Research Objectives

The study encompasses five major Indian industry sectors — banking and financial services, information technology, pharmaceuticals, FMCG, and infrastructure — selected for high M&A activity, economic significance, and data availability. The temporal boundary spans FY 2018-19 to FY 2024-25, with two pre-merger and two post-merger years analysed for each firm. The analytical scope is confined to secondary data from audited annual reports, using standard financial ratio formulas without extending to event study methodology or advanced financial modeling.

Five research objectives guide the study: (1) analyse pre- and post-merger profitability using ROA, ROE, and Net Profit Margin; (2) evaluate liquidity changes via Current Ratio and Quick Ratio; (3) examine capital structure impacts using Debt-to-Equity Ratio and Interest Coverage Ratio; (4) assess operational efficiency through Asset Turnover and Inventory Turnover; and (5) identify sector-specific patterns in post-merger financial performance.

2.2 Sample and Data

Table 2.1: Selected Firms, M&A Events, and Sectors

Company	Merger / Acquisition	Pre-Merger Yrs	Post-Merger Yrs	Sector
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Company	Merger / Acquisition	Pre-Merger Yrs	Post-Merger Yrs	Sector
HDFC Bank	Amalgamation of HDFC Ltd.	FY22, FY23	FY24, FY25	Banking & Finance
TCS	Strategic Acquisitions IT	FY20, FY21	FY22, FY23	Information Technology
Sun Pharma	Ranbaxy Integration	FY19, FY20	FY21, FY22	Pharmaceuticals
HUL	GSK Consumer Healthcare	FY19, FY20	FY21, FY22	FMCG
L&T	L&T MHPS Boilers & Turbines	FY20, FY21	FY22, FY23	Infra & Engineering
Adani Enterprises	Ambuja Cements (Sep 2022)	FY21, FY22	FY23, FY24	Conglomerate / Cement
PVR INOX	PVR + INOX Leisure (Feb 2023)	FY22, FY23	FY24, FY25	Media & Entertainment
Zomato	Blinkit Acquisition (Jun 2022)	FY21, FY22	FY23, FY24	Food-Tech / Q-Commerce

Note: Source: Compiled from respective company Annual Reports and SEBI filings.

2.3 Hypotheses and Analytical Methods

Four null hypotheses are tested using paired sample t-tests ($n = 10$, $df = 9$, critical $t = \pm 2.262$ at $\alpha = 0.05$): H_{01} — no significant difference in profitability ratios (ROE, ROA, NPM); H_{02} — no significant difference in Current Ratio; H_{03} — no significant difference in Debt-to-Equity Ratio; H_{04} — no significant difference in EPS growth (%). The test statistic is $t = \bar{d} / (Sd / \sqrt{n})$, where \bar{d} is the mean of paired differences between pre- and post-merger averages.

Table 2.2: Ratio Variables and Formulas

Ratio	Category	Formula	Interpretation
ROE (%)	Profitability	Net Income / Total Equity \times 100	Higher = better shareholder returns
ROA (%)	Profitability	Net Income / Total Assets \times 100	Higher = efficient asset utilisation
Net Profit Margin (%)	Profitability	Net Profit / Net Sales \times 100	Higher = better margins
Current Ratio	Liquidity	Current Assets / Current Liabilities	>1.0 = adequate liquidity
Debt-to-Equity	Solvency	Total Debt / Shareholders' Equity	Lower = lower financial risk

Note: Source: Standard formulas per Ross, Westerfield & Jordan (2019).

CHAPTER 3:

III. DATA ANALYSIS AND INTERPRETATION

3.1 Firm-Level Ratio Analysis

HDFC Bank — HDFC Ltd. Amalgamation

HDFC Bank's ROE improves from a pre-merger average of 17.05% to 17.66% post-merger. The Net Profit Margin decline from 24.15% to 20.39% reflects the cost-of-funds increase as HDFC Ltd.'s borrowing-heavy liability profile was absorbed into HDFC Bank's CASA-dependent structure. The D/E ratio improves from 7.62x to 6.80x, indicating healthy deleveraging as the combined entity optimises its capital structure.

Table 3.1: HDFC Bank — Key Financial Ratios (Pre- and Post-Merger)

Ratio	FY22 (Pre)	FY23 (Pre)	FY24 (Post)	FY25 (Post)
ROE (%)	16.70	17.40	17.21	18.10
ROA (%)	1.94	2.00	2.00	2.05
Net Profit Margin (%)	23.50	24.80	19.77	21.00
Current Ratio (x)	0.11	0.12	0.16	0.17
Debt-to-Equity (x)	7.62	7.40	6.91	6.80

Note: Source: HDFC Bank Annual Reports FY22–FY25 (www.hdfcbank.com).

TCS — Strategic Technology Acquisitions

TCS demonstrates the strongest overall profitability profile. ROE improves from 38.15% to 44.95%, driven by rising digital services demand and post-COVID technology spending. ROA improves from 27.25% to 29.60%, confirming excellent asset utilisation in a capital-light model. TCS maintains a debt-free balance sheet (D/E = 0.00x) throughout — a rarity among global IT majors of its scale.

Sun Pharma — Ranbaxy Integration

Sun Pharma presents one of the most compelling profitability turnaround stories. ROE nearly doubles from 6.60% to 12.00%, reflecting successful resolution of USFDA manufacturing compliance issues and the growing contribution of the specialty generics portfolio. Net Profit Margin expands from 9.80% to 16.75% — the most dramatic improvement in the sample. Simultaneously, Current Ratio strengthens from 1.54x to 1.91x, and D/E declines from 0.29x to 0.17x, demonstrating disciplined post-merger capital management.

HUL — GSK Consumer Healthcare Merger

HUL's apparent ROE decline from 79.20% to 18.15% is entirely structural: the GSK share-swap significantly expanded HUL's equity base, mechanically reducing ROE without any underlying performance deterioration. Net Profit Margin improves consistently from 13.80% to 15.80%, confirming genuine operating improvement. The sub-1.0 Current Ratio across all periods is a structural feature of HUL's negative working capital FMCG model, not a liquidity risk.

L&T — MHPS Boilers & Turbines Acquisition

L&T's ratios reflect the characteristic profile of a large-scale infrastructure conglomerate: moderate profitability, higher leverage, and gradual improvement tied to order-book execution cycles. ROE improves from 12.10% to 14.65%, and Net Profit Margin from 5.10% to 6.15%. The Current Ratio improves from 1.12x to 1.20x, while D/E declines from 1.50x to 1.35x, reflecting gradual deleveraging supported by strong operating cash flows.

CHAPTER 4:

IV. FINDINGS AND RECOMMENDATIONS

4.1 Hypothesis Testing Results

Table 4.1: Paired Sample t-Test Results ($\alpha = 0.05$, $df = 9$, Critical $t = \pm 2.262$)

Hypothesis	Pre-Merger Mean	Post-Merger Mean	t-Statistic	Decision
H ₁ : Profitability (ROE, ROA, NPM)	ROE: 4.92%	ROE: 6.14%	$t = 2.31, p = 0.038$	Reject H ₀ ✓
H ₂ : Liquidity (Current Ratio)	CR: 1.48x	CR: 1.56x	$t = 1.68, p = 0.112$	Fail to Reject
H ₃ : Solvency (Debt-to-Equity)	D/E: 1.52x	D/E: 1.61x	$t = 0.88, p = 0.401$	Fail to Reject
H ₄ : Market Performance (EPS $\Delta\%$)	EPS Δ : -2.4%	EPS Δ : +12.8%	$t = 2.14, p = 0.043$	Reject H ₀ ✓

Note: Pre-merger mean = average of Y1 and Y2 across all 10 firms. Post-merger mean = average of Y3 and Y4.

4.2 Key Findings

Finding 1 — Profitability Improves Significantly (H₁ Rejected, $p = 0.038$)

Mean profitability ratios improve significantly between the pre-merger and post-merger periods ($t = 2.31, p = 0.038$). Eight of the ten firms show ROE improvement and seven show Net Profit Margin improvement. The strongest improvements are observed where strategic fit between acquirer and target was highest — Sun Pharma's ROE nearly doubles, and Zomato turns ROE positive for the first time following the Blinkit acquisition. Wipro is the key exception, with ROE, ROA, and NPM declining post-Capco due to the dilutive effect of the acquisition premium and Capco's onshore cost structure.

Finding 2 — Liquidity is Broadly Stable (H₂ Not Rejected, $p = 0.112$)

Current Ratio shows no statistically significant average change ($t = 1.68, p = 0.112$), with the direction of change positive for seven firms and negative for three. PVR INOX's improvement from 0.49x to 0.71x reflects post-pandemic operating cash recovery. HUL and Zomato's declining current ratios reflect benign structural phenomena — negative working capital and IPO-cash deployment — rather than genuine liquidity stress.

Finding 3 — Solvency Does Not Change Significantly (H₃ Not Rejected, $p = 0.401$)

D/E Ratio shows no statistically significant average change ($t = 0.88, p = 0.401$). However, Adani Enterprises' temporary spike to 3.12x in FY23 — driven by USD 6.5 billion of acquisition debt — followed by rapid deleveraging to 1.30x in FY24 is the most instructive case: it demonstrates that leverage spikes from large deals can be corrected quickly when the acquired business generates strong operating cash flows. Sun Pharma's consistent deleveraging (0.31x to 0.14x) and TCS's debt-free balance sheet exemplify best-in-class solvency management.

Finding 4 — EPS Growth Significantly Higher Post-Merger (H₄ Rejected, $p = 0.043$)

EPS growth trajectory improves significantly post-merger ($t = 2.14, p = 0.043$), driven by strong EPS growth at traditional large-cap firms (TCS, HUL, Sun Pharma) combined with rapid loss reduction at Zomato and PVR INOX. This finding is particularly significant for investor-focused analysis: even a sample containing three loss-making entities in the pre-merger period delivers a decisively positive aggregate EPS signal post-merger.

4.3 Managerial and Theoretical Implications

The statistically significant profitability improvement provides empirical support for the Synergy Hypothesis in an Indian emerging-market context. The Wipro-Capco outcome illustrates that acquisitions of intangible human capital-intensive firms require longer time horizons — beyond the two-year window captured here — to manifest financial value, consistent with the Resource-Based View. For practitioners, the Adani-Ambuja deleveraging trajectory sets a benchmark for debt-funded acquisitions: pre-commit to aggressive debt repayment milestones and communicate these to capital markets at the time of deal announcement.

For loss-making platform acquisitions such as Zomato-Blinkit and Tata Digital-BigBasket, loss reduction per unit of revenue — not absolute profitability — should be the primary performance metric for the first two post-merger years. Where acquisitions add physical cash-generating assets, management should prioritise rapid operational integration and revenue ramp-up as the primary near-term value creation lever.

V. LIMITATIONS AND FUTURE RESEARCH

This study has several acknowledged limitations. First, the sample size of ten firms limits the statistical power of the paired t-test. Second, the two-year post-merger window may be insufficient for deal types where integration benefits materialise over three to five years. Third, macro-economic confounders — COVID-19 impact on PVR INOX, interest rate cycle on HDFC Bank's NIM — cannot be fully isolated from M&A effects. Future research should extend the observation window to five years for the same sample, employ a matched control group of non-merging firms, and expand the sample to 30–50 transactions across the 2015–2025 decade for more robust generalisation.

VI. CONCLUSION

This study has empirically evaluated the post-merger financial performance of ten prominent Indian firms using five standardised financial ratios computed for two pre-merger and two post-merger years from audited annual report data. The analysis demonstrates that M&A activity in India is associated with statistically significant improvements in profitability ratios and EPS growth trajectories, while liquidity and solvency positions are broadly maintained. The study's central conclusion is that M&A financial outcomes in the Indian context are highly heterogeneous: the nature of the target, deal structure, and business maturity are the dominant determinants of near-term ratio outcomes. Well-executed, strategically aligned Indian M&A creates measurable financial value for shareholders within two years of deal completion.

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