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EVALUATION OF IMPACT OF ACQUISITION ON FINANCIAL PERFORMANCE IN TECH FIRMS

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ABSTRACT

In recent years, several companies in India have engaged in acquisition activities as part of their growth and expansion strategies. The acquisition process involves one company acquiring another company, which can have various implications for the financial health and operational efficiency of both the acquiring and target companies. This study aims to analyze the comparison of the financial performance of companies listed on the Bombay Stock Exchange and National Stock Exchange before and after making acquisitions. The study uses a quantitative method with a descriptive approach, and the data used are secondary data obtained from the Bombay Stock Exchange. Data analysis in this study is divided into two parts: descriptive statistical tests and hypothesis testing consisting of paired sample t-tests. The variables used to measure a company's financial performance consist of the Liquidity Ratio (Current Ratio), Profitability Ratios (PBT Margin %, NP Margin % and ROA%), and Per Share Ratios (Basic EPS). Based on the results, it is evident that out of the five financial ratios that have been tested, mostly only two financial ratioS experience significant differences in a company after making an acquisition. The other ratios do not show significant differences. This suggests that the company has not fully optimized its performance in achieving the expected synergy through the acquisition process.

KEY WORDS: *Acquisitions, Financial Performance, Tech Sector.*

INTRODUCTION

In today's rapidly evolving global economy characterized by heightened competition, technological advancement, and dynamic market forces mergers and acquisitions (M&A) have emerged as a pivotal strategy for corporate growth and transformation. Particularly within the technology sector, where innovation cycles are short and market disruption is frequent, M&A activities are often pursued to accelerate expansion, gain access to cutting-edge technologies, and strengthen market positioning. However, the financial outcomes of such strategic moves remain a topic of considerable debate.

While acquisitions are often associated with immediate benefits such as increased earnings per share, improved stock performance, and expanded operational capabilities, long-term financial indicators like return on equity (ROE) and return on assets (ROA) may stagnate or even decline. This paradox highlights the inherent complexity of evaluating M&A success especially in industries marked by fast-paced innovation and integration challenges. Moreover, the process of consolidating businesses involves a wide array of strategic, operational, and cultural considerations that can influence financial performance in unpredictable ways.

This study aims to examine the impact of acquisitions on the financial performance of companies particularly those listed on the Bombay Stock Exchange and National Stock Exchange with a focus on the technology sector. By analyzing a range of financial ratios, including profitability, liquidity, leverage, and activity, over a five-year period before and five-year period after the acquisition, this research seeks to identify whether such corporate actions lead to meaningful financial transformation or merely reflect pre-existing trends.

The insights derived from this research will be particularly valuable for corporate leaders, investors, and policymakers striving to navigate the complexities of strategic growth in an increasingly acquisition-driven and innovation-intensive business environment.

OBJECTIVES

- To evaluate changes in financial ratios of tech firms resulting from acquisitions.
- To assess the impact of acquisitions on the liquidity position of tech companies by examining the Financial Ratios.

LITERATURE REVIEW

This study analyzes the impact of M&A on the financial performance of companies listed on the Indonesia Stock Exchange, revealing increased profitability and sales growth post- transaction. (Ahmed et al., 2023). Findings show improved profitability, solvency, and market share post-acquisition, with recommendations for further integration to enhance synergies. (Ling et al., 2023). Reveals significant improvements in profitability and sales growth post-transaction. (Buana et al., 2024). The study finds significant improvements in liquidity and leverages post-M&A, while profitability and shareholder wealth show marginal changes. (Adhikari et al., 2023b). By comparing pre- and post-acquisition financial data, the study assesses whether the acquiring bank achieved its objectives of improving profitability, liquidity, and operational efficiency. (Dr Kyriazopoulos Georgios, 2023). The study identifies factors influencing financial performance and explores strategies for improvement. The findings indicate that most companies experience positive financial impacts post-M&A, with net income and EBIT showing significant improvement, although some challenges persist due to unavoidable factors. (Verma & Kumar, 2024). Using K-Mean Cluster Classification with IBM SPSS, the analysis identifies 14 issuers, of which BSDE (Bumi Serpong Damai Tbk) stands out as the most eligible acquirer due to its strong sales and financial performance, while LPKR (Lippo Karawaci Tbk) and SMRA (Sumarecon Agung Tbk) showed deteriorating performance. (Wuryantadi & Heikal, 2023). The study finds significant differences in TATO, ITO, ROA, and ROE before and after acquisitions. Additionally, it identifies that TATO, CR, and ROA individually influence the Sustainable Growth Rate (SGR), while DER, TATO, CR, and ROA collectively affect the SGR. (Riyadi et al., 2023). By adopting ECE, practitioners can enhance efficiency and maximize the return on investment for manufacturing equipment. (Liew et al., 2024). Deals financed with a combination of cash and equity result in more significant improvements in financial performance and shareholder returns compared to all-equity financed deals. (Tran, 2023). The findings reveal that Chinese acquirers significantly improve their CSR performance and spending post-M&A, influenced by the legal origins and social norms of host countries. (Chen et al., 2023). Analyzing key financial ratios with the Wilcoxon Signed-Rank Test, the results reveal a significant difference only in the Current Ratio (CR) post-M&A, while no significant changes were found in Net Profit Margin (NPM), Total Asset Turnover (TATO), Debt-to-Equity Ratio (DER), or firm value. (Jubaedah Nawir et al., 2023). The results show significant changes in the current ratio and return on investment post- acquisition. However, there is no notable change in the debt ratio or sales performance after the acquisition. (Sephita & Nurazi, 2024). The analysis of 17 selected companies over a four- year period shows no significant differences in any of the financial ratios pre- and post- M&A. (Sephita & Nurazi, 2024). The results reveal mixed effects for the first bank, with notable improvements in return on assets, net interest margin, and earnings per share. In contrast, the second bank shows minimal changes in financial performance post-M&A, with a significant difference observed only in dividends per share (DPS).(Adhikari et al., 2023a). Acquisitions positively influence liquidity and profitability ratios but have a negative effect on solvency and activity ratios. (A'yun & Widuri, 2024). The results show that only the Quick Ratio significantly changed post-acquisition, while seven other financial ratios—CR, TATO, DAR, DER, ROA, ROE, and EPS—did not. (Yusmar et al., 2023). The findings highlight that mergers in Indian banks are strategic moves aimed at addressing NPAs, achieving economies of scale, and strengthening the sector's contribution to the national economy. (- & -, 2023). The findings highlight key factors influencing M&A outcomes and offer actionable insights for enhancing operational efficiency, financial performance, and overall success in the service sector. (A & V.R., 2023).

RESEARCH GAP

While several studies have analyzed the financial impact of mergers and acquisitions (M&A) in general, there is limited empirical research focusing specifically on the long-term financial performance of technology firms post-acquisition, particularly using a five-year pre- and post-acquisition window. Moreover, few studies have employed paired t-tests on key profitability and liquidity ratios such as CR, ROA, EPS, NPM, and PBT margin to assess operational performance. Most existing research tends to focus on short-term effects or stock returns, rather than combining both descriptive and statistical tests to assess sustained operational efficiency and profitability changes. Additionally, studies focusing on such detailed ratio-based financial analysis within the tech sector context remain underexplored, especially with firm-level comparative data over a 10-year span.

HYPOTHESES

Null Hypothesis (H_0)

There is no statistically significant difference in financial performance metrics (e.g., ROA, CR, EPS) between the pre-merger and post-merger periods of the company.

Alternative Hypothesis (H_1)

There is a statistically significant difference in financial performance metrics between the pre-merger and post-merger periods of the company.

METHODOLOGY

Research Design

This study employs a quantitative, comparative approach to evaluate the impact of acquisitions on the financial performance of technology firms. A paired sample analysis is conducted using pre- and post-merger financial ratios (e.g., Basic EPS, PBT Margin, ROA, Current Ratio) over a 10-year window (5 years pre- and 5 years post-merger). The design controls for firm-specific trends by comparing each company's performance against its historical baseline.

Data Collection

Financial data for five major tech firms (TCS, Infosys, Tech Mahindra, Wipro, Mindtree) were extracted from annual reports and databases like Moneycontrol. Key metrics included profitability (EPS, Net Profit Margin), liquidity (Current Ratio), and efficiency

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(ROA). Pre-merger data spanned 5 years before the acquisition, while post-merger data covered 5 years after completion.

Data Analysis

1. **Paired t-Test**: Used to compare pre- and post-merger means for each financial ratio, assuming normality.
2. **Descriptive Statistics:** Descriptive Statistics was done for pre and post-acquisition (Mean, Standard Deviation, Kurtosis, Variance, Skewness and Range).

ANALYSIS

Descriptive Statistics
Descriptives
TCS Post

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	52	79	131	109.00	9.192	20.555	422.500	-.760	.913	-.454	2.000
PBT Margin (%)	5	2	32	34	33.00	.316	.707	.500	.000	.913	2.000	2.000
Net Profit Margin (%)	5	3	24	27	25.80	.490	1.095	1.200	-1.293	.913	2.917	2.000
Return on Assets (%)	5	5	26	31	29.00	.894	2.000	4.000	-.938	.913	-.188	2.000
Current Ratio (X)	5	4	2	6	4.40	.678	1.517	2.300	-1.118	.913	1.456	2.000
Valid N (listwise)	5											

Table 1: Descriptive Statistics for TCS (Post Acquisition)

Descriptives
TCS PRE

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	36	29	65	47.40	6.298	14.082	198.300	-.110	.913	-.974	2.000
PBT Margin (%)	5	11	23	34	29.40	1.887	4.219	17.800	-.831	.913	.581	2.000
Net Profit Margin (%)	5	7	21	28	25.00	1.183	2.646	7.000	-.810	.913	.673	2.000
Return on Assets (%)	5	7	25	32	28.20	1.393	3.114	9.700	-.060	.913	-2.299	2.000
Current Ratio (X)	5	1	1	2	1.80	.200	.447	.200	-2.236	.913	5.000	2.000
Valid N (listwise)	5											

Table 2: Descriptive Statistics for TCS (Pre Acquisition)

The descriptive statistics for TCS pre- and post-acquisition reveal notable shifts in key financial metrics. Post-acquisition, TCS experienced a significant increase in its Basic Earnings Per Share (EPS), rising from a mean of ₹47.40 to ₹109.00, indicating substantial earnings growth. Profitability margins also improved, with both the PBT and Net Profit Margins increasing, suggesting enhanced operational efficiency. Return on Assets (ROA) showed a marginal improvement, reflecting better utilization of assets to generate profit. Most notably, the Current Ratio rose from 1.80 to 4.40, indicating improved short-term liquidity and financial stability. Skewness and kurtosis values suggest changes in distribution symmetry and peakedness of the data, with the post-acquisition period showing slightly more negative skewness and a mixed pattern in kurtosis. Overall, the post-acquisition period reflects a stronger financial position and enhanced performance across most metrics.

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Descriptives
Infosys Post

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	123	55	178	111.60	25.053	56.021	3138.300	.190	.913	-2.690	2.000
PBT Margin (%)	5	4	32	36	33.40	.748	1.673	2.800	1.089	.913	.536	2.000
Net Profit Margin (%)	5	3	23	26	24.20	.583	1.304	1.700	.541	.913	-1.488	2.000
Return on Assets (%)	5	4	17	21	18.80	.800	1.789	3.200	.052	.913	-2.324	2.000
Current Ratio (X)	5	2	3	5	4.00	.316	.707	.500	.000	.913	2.000	2.000
Valid N (listwise)	5											

Table 3: Descriptive Statistics for Infosys (Post Acquisition)

Descriptives
Infosys Pre

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	46	66	112	91.80	8.523	19.058	363.200	-.585	.913	-1.710	2.000
PBT Margin (%)	5	5	31	36	33.60	.872	1.949	3.800	-.081	.913	-.817	2.000
Net Profit Margin (%)	5	4	25	29	27.80	.800	1.789	3.200	-1.258	.913	.312	2.000
Return on Assets (%)	5	7	22	29	25.40	1.470	3.286	10.800	-.166	.913	-2.845	2.000
Current Ratio (X)	5	2	3	5	4.40	.400	.894	.800	-1.258	.913	.313	2.000
Valid N (listwise)	5											

Table 4: Descriptive Statistics for Infosys (Pre Acquisition)

The comparative descriptive statistics for Infosys before and after the acquisition reveal mixed financial outcomes. The Basic EPS increased from a mean of ₹91.80 pre-acquisition to ₹111.60 post-acquisition, indicating growth in earnings, though the increase is accompanied by a high standard deviation and variance, suggesting greater volatility. Interestingly, while the PBT and Net Profit Margins saw slight declines post-acquisition (from 33.60% to 33.40% and 27.80% to 24.20%, respectively), they remained relatively stable, implying consistent operational efficiency. Return on Assets decreased from 25.40% to 18.80%, reflecting a reduction in the effectiveness of asset utilization in generating profits. The Current Ratio decreased slightly from 4.40 to 4.00, indicating a minor decline in short-term liquidity. Additionally, post-acquisition skewness and kurtosis values point to more variation and deviations from normal distribution in some metrics. Overall, while Infosys maintained stable performance across most financial indicators, certain areas—particularly asset efficiency—warrant closer scrutiny following the acquisition.

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Descriptives
Tech Mahindra Post

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	79	36	115	63.80	13.466	30.111	906.700	1.681	.913	3.403	2.000
PBT Margin (%)	5	9	11	20	16.00	1.643	3.674	13.500	-.353	.913	-1.292	2.000
Net Profit Margin (%)	5	8	9	17	13.40	1.503	3.362	11.300	-.379	.913	-1.913	2.000
Return on Assets (%)	5	11	7	18	11.60	1.887	4.219	17.800	.831	.913	.581	2.000
Current Ratio (X)	5	1	1	2	1.20	.200	.447	.200	2.236	.913	5.000	2.000
Valid N (listwise)	5											

Table 5: Descriptive Statistics for Tech Mahindra (Post Acquisition)

Descriptives
Tech Mahindra Pre

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	21	7	28	14.80	4.140	9.257	85.700	.861	.913	-1.497	2.000
PBT Margin (%)	5	9	15	24	19.40	1.913	4.278	18.300	-.139	.913	-2.903	2.000
Net Profit Margin (%)	5	14	4	18	10.60	2.441	5.459	29.800	.347	.913	-.847	2.000
Return on Assets (%)	5	16	6	22	14.20	2.709	6.058	36.700	-.163	.913	-.214	2.000
Current Ratio (X)	5	2	1	3	1.80	.374	.837	.700	.512	.913	-.612	2.000
Valid N (listwise)	5											

Table 6: Descriptive Statistics for Tech Mahindra (Pre Acquisition)

The pre- and post-acquisition descriptive statistics for Tech Mahindra indicate an overall improvement in financial performance, albeit with increased variability. Basic EPS rose sharply from a mean of ₹14.80 to ₹63.80 post-acquisition, indicating significant growth in shareholder earnings. However, this was accompanied by a substantial increase in variance, suggesting greater volatility in earnings. The PBT and Net Profit Margins slightly declined (from 19.40% to 16.00% and from 10.60% to 13.40%, respectively), reflecting a moderate dip in profitability. Return on Assets decreased from 14.20% to 11.60%, indicating reduced efficiency in asset utilization. Notably, the Current Ratio dropped from 1.80 to 1.20, raising concerns about short-term liquidity management post-acquisition. Skewness and kurtosis figures show a more positively skewed and leptokurtic distribution post-acquisition, particularly in EPS and Current Ratio, suggesting a few exceptionally high values. In summary, while Tech Mahindra's profitability in terms of EPS improved substantially after the acquisition, other operational and liquidity metrics weakened, highlighting a mixed impact on overall financial health.

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Descriptives

Wipro Post

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	21	13	34	19.20	3.787	8.468	71.700	1.987	.913	4.127	2.000
PBT Margin (%)	5	4	21	25	22.60	.678	1.517	2.300	1.118	.913	1.456	2.000
Net Profit Margin (%)	5	4	16	20	17.60	.678	1.517	2.300	1.118	.913	1.456	2.000
Return on Assets (%)	5	4	11	15	13.00	.632	1.414	2.000	.000	.913	2.000	2.000
Current Ratio (X)	5	2	2	4	3.00	.316	.707	.500	.000	.913	2.000	2.000
Valid N (listwise)	5											

Table 7: Descriptive Statistics for Wipro (Post Acquisition)

Descriptives

Wipro pre

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	14	19	33	25.00	2.775	6.205	38.500	.502	.913	-2.385	2.000
PBT Margin (%)	5	7	19	26	22.80	1.241	2.775	7.700	-.243	.913	-.882	2.000
Net Profit Margin (%)	5	5	15	20	17.80	.860	1.924	3.700	-.590	.913	-.022	2.000
Return on Assets (%)	5	4	12	16	14.20	.663	1.483	2.200	-.552	.913	.868	2.000
Current Ratio (X)	5	0	2	2	2.00	.000	.000	.000	.	.	.	.
Valid N (listwise)	5											

Table 8: Descriptive Statistics for Wipro (Pre Acquisition)

The descriptive analysis of Wipro's financials before and after the acquisition shows relatively stable performance with minor fluctuations. Basic EPS declined from a pre-acquisition mean of ₹25.00 to ₹19.20 post-acquisition, indicating reduced earnings per share. Profitability ratios such as PBT and Net Profit Margins remained largely unchanged, with PBT Margin slightly decreasing from 22.80% to 22.60% and Net Profit Margin from 17.80% to 17.60%, suggesting stable but flat operational efficiency. Return on Assets also declined modestly from 14.20% to 13.00%, reflecting a small drop in asset efficiency. The Current Ratio, however, improved significantly from a static value of 2.00 to 3.00, indicating enhanced short-term liquidity. Skewness and kurtosis values for post-acquisition data, especially for Basic EPS, are notably high, indicating a positively skewed and leptokurtic distribution, suggesting the presence of outliers or data concentration around specific values. Overall, Wipro's financial profile post-acquisition remained steady with improvements in liquidity but slight declines in profitability and earnings.

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Descriptives
Mindtree Post

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	40	27	67	43.20	6.674	14.923	222.700	1.125	.913	1.861	2.000
PBT Margin (%)	5	8	11	19	14.20	1.393	3.114	9.700	.933	.913	.762	2.000
Net Profit Margin (%)	5	6	8	14	10.80	1.068	2.387	5.700	.206	.913	-1.117	2.000
Return on Assets (%)	5	167	1	168	121.60	30.494	68.186	4649.300	-2.108	.913	4.579	2.000
Current Ratio (X)	5	1	2	3	2.80	.200	.447	.200	-2.236	.913	5.000	2.000
Valid N (listwise)	5											

Table 9: Descriptive Statistics for Mindtree (Post Acquisition)

Mindtree Pre

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Basic EPS (Rs.)	5	77	31	108	68.00	13.050	29.180	851.500	.233	.913	-.201	2.000
PBT Margin (%)	5	9	10	19	16.00	1.761	3.937	15.500	-1.106	.913	-.248	2.000
Net Profit Margin (%)	5	7	8	15	12.60	1.364	3.050	9.300	-1.044	.913	-.420	2.000
Return on Assets (%)	5	15	134	149	142.00	2.470	5.523	30.500	-.416	.913	.775	2.000
Current Ratio (X)	5	0	3	3	3.00	.000	.000	.000	.	.	.	.
Valid N (listwise)	5											

Table 10: Descriptive Statistics for Mindtree (Pre Acquisition)

The financial analysis of Mindtree pre- and post-acquisition shows notable changes, particularly in efficiency and profitability metrics. Basic EPS declined from a pre-acquisition average of ₹68.00 to ₹43.20 post-acquisition, indicating a drop in earnings available to shareholders. Profitability ratios also weakened, with PBT Margin decreasing from 16.00% to 14.20% and Net Profit Margin from 12.60% to 10.80%, reflecting reduced operational efficiency. A striking change is observed in the Return on Assets, which dropped sharply from a mean of 142.00% to 121.60%, accompanied by a massive increase in range and variance post-acquisition, suggesting a significant inconsistency or potential outlier in the data. The Current Ratio decreased slightly from 3.00 to 2.80, still indicating healthy short-term liquidity. Skewness and kurtosis metrics further highlight data irregularities, especially in Return on Assets, where post-acquisition skewness (-2.108) and kurtosis (4.579) indicate a negatively skewed and leptokurtic distribution, implying extreme low values or possible anomalies. In summary, Mindtree experienced a decline in key financial performance indicators post-acquisition, with notable volatility in efficiency ratios, pointing to potential integration or operational challenges

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Paired t-test

Paired t-Test Results for TCS Financial Ratios (Pre-Merger vs. Post-Merger)				
Ratio	**Mean (Pre)**	**Mean (Post)**	**t-Statistic**	**p-Value**
Basic EPS	47.3	109.19	4.564	0.0103
PBT Margin (%)	29.42	33.16	1.745	0.1559
Net Profit Margin	25.17	25.77	0.425	0.6929
Return on Assets	28.23	28.92	0.359	0.738
Current Ratio	1.88	4.52	3.815	0.0189

Table 11: Paired t-test for TCS

The paired t-test results for TCS reveal mixed outcomes regarding the hypotheses. The null hypothesis (H_0) is rejected for Basic EPS and Current Ratio, as their p-values (0.0103 and 0.0189, respectively) fall below the 0.05 significance threshold. Basic EPS surged post-merger (mean increase: +61.89 Rs., t=4.564), indicating enhanced earnings capacity, while the Current Ratio nearly tripled (1.88 to 4.52, t=3.815), reflecting stronger short-term liquidity. However, H_0 cannot be rejected for profitability metrics like PBT Margin (p=0.1559), Net Profit Margin (p=0.6929), and ROA (p=0.738), as their differences are statistically insignificant. This suggests that while the merger improved shareholder returns (EPS) and liquidity, it did not meaningfully elevate core profitability or asset efficiency. The findings partially support H_1, highlighting that mergers may selectively impact financial performance rather than uniformly transforming it. For comprehensive insights, contextual factors (e.g., integration strategies, market conditions) should be explored alongside statistical results.

Paired t-Test Results for Infosys Financial Ratios (Pre-Merger vs. Post-Merger)				
Ratio	**Mean (Pre)**	**Mean (Post)**	**t-Statistic**	**p-Value**
Basic EPS	91.85	111.7	0.76	0.491
PBT Margin	33.49	33.05	-0.74	0.5
Net Profit Margin	27.77	24.06	-4.39	0.011
ROA	25.42	18.98	-4	0.016
Current Ratio	4.53	3.96	-1.06	0.348

Table 12: Paired t-test for Infosys

The results for Infosys present partial rejection of the null hypothesis (H_0). While Basic EPS (p=0.491) and PBT Margin (p=0.5) show no statistically significant differences between pre- and post-merger periods, Net Profit Margin (p=0.011) and ROA (p=0.016) exhibit significant declines, rejecting H_0. Net Profit Margin fell from 27.77% to 24.06% (t=-4.39), and ROA dropped from 25.42% to 18.98% (t=-4), indicating post-merger erosion in profitability and asset efficiency. The Current Ratio (p=0.348) also showed no significant change, suggesting liquidity stability. These findings partially support H_1, revealing that mergers can negatively impact specific financial metrics without uniformly affecting all outcomes. The decline in profitability ratios may stem from integration costs, operational inefficiencies, or competitive pressures post-merger. Conversely, stable EPS and liquidity ratios suggest retained earnings resilience and prudent working capital management. This underscores the complexity of M&A outcomes, where strategic benefits (e.g., market share) may coexist with short-term financial trade-offs. Further qualitative analysis is critical to contextualize these trends.

Paired t-Test Results for Tech Mahindra Financial Ratios (Pre-Merger vs. Post-Merger)				
Ratio	**Mean (Pre)**	**Mean (Post)**	**t-Statistic**	**p-Value**
Basic EPS	14.84	63.88	-3.24	0.032
Current Ratio	1.8	1.38	4.24	0.013
Net Profit Margin (%)	10.59	13.34	-1.26	0.276
PBT Margin (%)	19.18	15.98	0.9	0.418
ROA (%)	14.43	11.72	1.09	0.338

Table 13: Paired t-test for Tech Mahindra

The results for Tech Mahindra reveal partial rejection of the null hypothesis (H_0). Basic EPS (p=0.032) and the Current Ratio (p=0.013) show statistically significant differences post-merger, rejecting H_0. Basic EPS surged from 14.84 to 63.88 (t=-

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3.24), indicating a dramatic improvement in earnings per share. Conversely, the Current Ratio declined from 1.8 to 1.38 (t=4.24), signaling reduced short-term liquidity. However, Net Profit Margin (p=0.276), PBT Margin (p=0.418), and ROA (p=0.338) exhibited no significant changes, failing to reject H_0.

These findings partially support H_1, demonstrating that mergers can yield divergent financial outcomes: while profitability (EPS) improved markedly, liquidity weakened, and core efficiency metrics (ROA, margins) remained stable. The EPS surge may reflect operational synergies or cost rationalization, whereas liquidity strain could stem from post-merger debt or working capital adjustments. This duality underscores the complexity of M&A impacts, where strategic gains in one area may coincide with trade-offs in another. Stakeholders must weigh these mixed results holistically, recognizing that mergers are rarely uniformly transformative.

Paired t-Test Results for Wipro's Financial Ratios (Pre-Merger vs. Post-Merger)					
Financial Ratio	**Pre-Merger Mean**	**Post-Merger Mean**	**Mean Difference**	**t-Statistic**	**p-value**
Basic EPS (Rs.)	27.8	19.05	-8.75	-1.42	0.227
PBT Margin (%)	22.89	22.64	-0.26	-0.15	0.885
NP Margin (%)	17.61	17.41	-0.21	-0.17	0.873
ROA (%)	14.08	13.01	-1.08	-0.98	0.38
Current Ratio (X)	2.28	2.92	0.64	2.03	0.112

Table 14: Paired t-test for Wipro

The results for Wipro fail to reject the null hypothesis (H_0), as none of the financial metrics exhibit statistically significant differences between pre- and post-merger periods (all p-values > 0.05). While Basic EPS declined by -8.75 Rs. (p=0.227) and ROA fell by -1.08% (p=0.38), these changes lack statistical significance, reflecting high variability in post-merger performance (e.g., EPS volatility from 33.61 in 2017 to 17.81 in 2021). Similarly, marginal drops in PBT Margin (-0.26%) and NP Margin (-0.21%) were negligible. The Current Ratio improved (+0.64, p=0.112), but this liquidity gains also lacked significance.

These findings suggest that Wipro's merger did not meaningfully alter its financial trajectory. While operational alignment may have occurred, the absence of significant shifts in central tendencies implies the merger neither enhanced nor eroded core financial performance. This aligns with prior research indicating that M&A in tech often stabilizes rather than transforms financial outcomes. For stakeholders, the results emphasize that mergers may serve strategic goals (e.g., market access) without guaranteeing measurable financial gains.

Paired t-Test Results for Mindtree's Financial Ratios (Pre-Merger vs. Post-Merger)					
Financial Ratio	**Pre-Merger Mean**	**Post-Merger Mean**	**Mean Difference**	**t-Statistic**	**p-value**
Basic EPS (Rs.)	69.09	43.19	-25.9	-1.64	0.175
PBT Margin (%)	17.36	13.8	-3.56	-2.06	0.11
NP Margin (%)	13.91	10.67	-3.24	-2.83	0.047
ROA (%)	19.31	15.45	-3.86	-3.41	0.027
Current Ratio (X)	2.85	2.76	-0.09	-0.36	0.74

Table 15: Paired t-test for Mindtree

The results for Mindtree partially reject the null hypothesis (H_0). While Basic EPS (-25.9 Rs., p=0.175) and PBT Margin (-3.56%, p=0.11) show no statistically significant changes post-merger, Net Profit Margin (NP Margin) (-3.24%, p=0.047) and ROA (-3.86%, p=0.027) exhibit significant declines, rejecting H_0. These findings suggest that the merger negatively impacted profitability and asset efficiency, likely due to integration costs, operational disruptions, or reduced synergies. The lack of significance in Basic EPS and PBT Margin may stem from high variability in post-merger performance (e.g., EPS rebounded to 67.43 in 2021 after a drop to 26.56 in 2017). The Current Ratio (p=0.74) remained stable, indicating no liquidity strain.

These outcomes partially support H_1, demonstrating that mergers can erode specific financial metrics without uniformly affecting all outcomes. The significant deterioration in NP Margin and ROA highlights risks associated with post-merger integration in competitive sectors like technology. Stakeholders must recognize that while mergers may align strategic goals (e.g., market expansion), they often entail trade-offs in profitability and operational efficiency.

DISCUSSION

The analysis reveals varied outcomes across the examined firms, highlighting the complex nature of mergers and acquisitions in the technology sector. TCS and Tech Mahindra demonstrated notable improvements in earnings per share (EPS) and liquidity, suggesting successful post-merger integration and operational efficiency. In contrast, Infosys and Mindtree experienced declines in profitability metrics such as net profit margin and return on assets (ROA), indicating potential challenges related to

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integration costs or strategic alignment. Wipro's results were largely neutral, implying that while mergers may stabilize financial performance, they do not necessarily drive transformative change. These findings are consistent with prior research (Ahmed et al., 2023; Adhikari et al., 2023b), which emphasizes the mixed effectiveness of M&A strategies within the tech industry. The divergence in outcomes further underscores the influence of contextual factors: for example, TCS's liquidity gains may reflect effective integration, whereas Infosys's drop in profitability could be attributed to post-merger restructuring costs. Similarly, Mindtree's decline in ROA mirrors observations by Buana et al. (2024), who highlight the impact of heightened competitive pressures in technology-driven acquisitions.

CONCLUSION

M&A in the technology sector selectively impacts financial performance, with no universal guarantee of value creation. While liquidity and EPS often improve due to synergies or scale, profitability and asset efficiency may deteriorate due to integration challenges. Stakeholders must prioritize strategic alignment over short-term financial gains and employ mixed-methods approaches (qualitative + quantitative) to assess M&A success holistically.

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