"Mergers and Acquisitions in India: Analyzing the Financial Performance and Value Creation of Acquiring Firms"

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Abstract

This study investigates the relationship between mergers and acquisitions (M&As) and the financial performance of Indian acquiring firms. By employing accounting-based metrics and cash flow analysis, we examine the long-term impact of M&As on shareholder wealth. Focusing on domestic mergers involving listed companies from 2009 to 2011, this research analyzes a six-year window surrounding the merger date to assess post-merger performance. The study contributes to the ongoing debate on the effectiveness of M&A as a value creation strategy for Indian firms.

Keywords: Mergers and Acquisitions (M&As), Financial Performance, Indian Acquiring Firms, Shareholder Wealth, Accounting-Based Metrics

Introduction

Mergers and acquisitions (M&As) have long been a strategic tool employed by corporations to enhance market share, achieve economies of scale, and unlock synergies. The allure of substantial value creation through these corporate combinations has driven a surge in M&A activity globally. However, the empirical evidence on the long-term impact of M&As on shareholder wealth remains inconclusive.

This study delves into the critical question of whether M&As indeed contribute to the sustained financial performance of acquiring firms. By focusing on a sample of Indian listed companies that underwent mergers post the 2008 financial crisis, this research aims to empirically examine the post-merger performance of these firms. Employing rigorous accounting-based metrics and cash flow analysis, the study seeks to provide insights into the factors influencing the success or failure of M&As in the Indian context.

The research contributes to the existing body of knowledge by shedding light on the long-term implications of M&As for Indian acquirers. By examining the post-merger financial performance, this study endeavors to bridge the gap in the understanding of M&A outcomes and offer valuable implications for both academicians and practitioners.

Review of Literature

Naveen Kumar, K. & Upadhyay, M. (2022), This study investigates the operational performance changes in companies post-M&A, providing an in-depth analysis of how

mergers and acquisitions influence key performance metrics. The authors highlight the role of strategic synergies and cost efficiencies achieved through M&As, emphasizing how these factors contribute to improved operational outcomes. The research draws on a comprehensive dataset of Indian companies, examining various sectors to present a holistic view. The findings suggest that companies often experience significant gains in operational performance due to enhanced resource utilization and streamlined processes.

Naveen Kumar, K. & Upadhyay, M. (2022). This paper discusses the challenges of cultural integration in M&As and proposes strategies for effective cultural alignment to ensure merger success. The authors explore the intricacies of blending different corporate cultures and the potential conflicts that may arise. Through case studies and empirical data, they illustrate how cultural mismatches can hinder the integration process and affect overall performance. The study emphasizes the importance of proactive cultural management and provides practical recommendations for fostering a cohesive corporate culture post-merger.

Naveen Kumar, K. & Upadhyay, M. (2022), In this study, the authors examine the financial performance and shareholder value of companies post-merger. They analyze various financial metrics such as profitability, return on investment, and market value to assess the impact of M&As. The research highlights the role of financial synergies and cost-saving measures in enhancing shareholder value. The findings indicate that while some companies experience significant financial improvements, others may face challenges in realizing the expected benefits.

Naveen Kumar, K. & Upadhyay, M. (2023), This paper explores the strategic motives behind M&As in emerging markets, focusing on the Indian context. The authors discuss various drivers such as market expansion, technological advancement, and competitive positioning. They provide a detailed analysis of how these strategic motives influence the outcomes of M&As. The study uses a mixed-method approach, combining quantitative data with qualitative insights from industry experts. The results highlight the importance of aligning strategic objectives with operational capabilities to achieve successful M&A outcomes.

Narayanan, K., & Prasad, V. (2015), This study explores the trends and patterns of M&As in India, focusing on the motives behind such activities and their impact on the companies involved. It provides insights into sector-specific M&A activities, highlighting the significant role that regulatory frameworks play in shaping these transactions. The authors analyze data from various industries, identifying key drivers such as market expansion, technological acquisition, and competitive positioning. Their findings suggest that regulatory changes and

economic reforms in India have created a favorable environment for M&As, leading to an increase in such activities across different sectors.

Sengupta, A. K. (2014), he examines the post-merger performance of Indian companies, focusing on growth and profitability metrics. The study identifies key factors influencing M&A success, such as strategic alignment, management practices, and operational efficiencies. By analyzing financial data from a sample of merged firms, the author concludes that well-planned and strategically aligned mergers tend to result in significant improvements in growth and profitability. The paper underscores the importance of strategic planning and integration processes in achieving the desired outcomes of M&As.

Gupta, P. K. (2012), this paper provides a comprehensive overview of the strategic concepts underpinning M&As in the Indian corporate sector. The paper discusses various motivations for M&As, including market expansion, diversification, and technological acquisition. It also examines the processes and outcomes of M&As, emphasizing the strategic rationale behind such decisions. Gupta highlights that successful M&As require meticulous planning, effective due diligence, and strong leadership to navigate the complexities of integration and achieve strategic goals.

Bansal, M., & Kumara, R. K. (2016). This study investigates the financial performance of Indian companies post-merger, analyzing key financial indicators such as profitability, return on assets, and liquidity. Bansal and Kumara highlight the challenges and opportunities associated with M&As, noting that while some companies experience significant financial improvements, others may face difficulties in achieving anticipated benefits. The authors provide insights into the factors that influence post-merger success, including effective integration strategies, management practices, and market conditions.

Jain, N. K., & Kumar, V. (2018). Jain and Kumar analyze the M&A activities in the Indian pharmaceutical sector, identifying key trends and drivers such as regulatory changes, market expansion, and access to new technologies. The paper assesses the impact of M&As on the competitive dynamics of the industry and the performance of the merged entities. The authors find that M&As have generally led to increased market share, enhanced research and development capabilities, and improved financial performance. However, they also highlight challenges such as integration complexities and regulatory hurdles.

Reddy, A. S. (2015). This paper provides a sectoral analysis of M&As in India, highlighting the patterns and outcomes across different industries. Reddy discusses the regulatory environment and strategic considerations that influence M&A activities, noting that sectors such as banking, pharmaceuticals, and information technology have seen significant M&A

activity. The study finds that sector-specific factors, such as market competition and technological advancements, play a crucial role in shaping M&A strategies and outcomes. Reddy emphasizes the need for industry-specific approaches to M&A to achieve successful results.

Rao, S. B. (2017). This study focuses on the impact of M&As on shareholder wealth in India. Using event study methodology, the paper assesses the short-term and long-term effects of M&A announcements on stock prices. The findings suggest that while M&A announcements often lead to positive short-term stock price reactions, the long-term effects on shareholder wealth can vary significantly. Rao highlights the importance of strategic fit, effective integration, and market conditions in determining the overall impact of M&As on shareholder value.

Research Gap

While mergers and acquisitions (M&As) have been extensively studied in specific sectors, such as the banking industry in India, there is a notable lack of research on their impacts across a broader range of industries. Further investigation is needed to understand how M&As affect different sectors and whether these impacts vary significantly between industries. Additionally, existing studies often rely on traditional statistical analysis methods. There is a research gap in exploring alternative statistical techniques or models that could provide a deeper and more nuanced understanding of M&A impacts. Employing advanced statistical methodologies, such as non-parametric tests or regression analysis with control variables, could offer additional insights into the relationship between M&As and financial performance. This approach may uncover subtler effects and contribute to a more comprehensive understanding of the consequences of mergers and acquisitions.

Objectives of the Study

1. To analyze the impact of mergers and acquisitions (M&As) on the financial performance of Indian firms.
2. To assess whether acquisitions add long-term value to the acquiring company's shareholders using accounting-based criteria and cash flow models.
3. To identify the factors that contribute to the success or failure of bank acquisitions in India's service sector.

Hypotheses

The study proposes two hypotheses based on the widely accepted notion of synergy as a driving force behind mergers and acquisitions. Synergy, whether achieved through financial

or operational means, should be reflected in the profitability or cash flow of the acquired businesses. The hypotheses are as follows:

- **Hypothesis 1:** After a merger, a company's profitability is significantly lower than it was before the merger.
- **Hypothesis 2:** The ratio of cash flow to total assets before and after the merger is significantly different.

Research Methodology

Sample Selection:

The study utilized data from CMIE Prowess to establish a relevant dataset, focusing on the long-term post-merger performance of Indian firms in the context of the post-2008 financial crisis economy. The sample period is 2019-2021. Acquirers were prioritized if data for the three years before and after the merger year was available. Only domestic mergers were included, and instances of overlapping mergers were excluded. The final sample consisted of 197 companies.

Research Methods:

The profitability of acquisitions is evaluated using accounting-based methods. The study examines changes in profitability over time by analyzing four key financial ratios: return on assets, return on capital employed, return on net worth, and profit margin. A matched company technique is used to analyze the pre- and post-merger performance of acquiring companies, with companies that were not acquired during the period in question serving as matches.

The analysis covers three years of data before and after the merger. The "merger year" is excluded from the evaluation. The years (t-3, t-2, t-1) represent pre-merger performance, while the years (t+1, t+2, t+3) represent post-merger performance. Industry-adjusted performance is used to account for variances between industries.

Each hypothesis is tested by comparing the pre-merger and post-merger means of the financial indicators using a paired t-test statistic. These statistical methods enable the investigation of the significance of performance disparities.

Return on Assets	$ROA=\frac{PAT}{TA}\times 100$
Return on Net worth	$RONW=\frac{PAT}{Networth}\times 100$
Return on Capital Employed	$ROCE=\frac{PAT}{ROCE}\times 100$

Profit margin	$PM=\frac{EBIT}{Sales}\times 100$

Cash Flow Measures

This analysis focuses on pre-tax operational cash flow, which includes operating income, depreciation, interest expenditures, and taxes, ensuring it remains unaffected by the chosen method of accounting. EBITDA (earnings before interest, taxes, depreciation, and amortization) is used as a proxy for cash flow, scaled by total assets to account for differences in business size.

To assess changes in profitability, the study utilizes a cross-sectional regression model, specifically:

Model 1:

$POMDCF = \alpha + \beta PROMDCF + \epsilon$

We will use the formula:

Total Assets / Post-Median Industry-Adjusted Cash Flow (POMDCF). Pre-median industry-adjusted cash flow to total assets is the acronym PROMDCF.

Where:

POMDCF: Post-Median Industry-Adjusted Cash Flow to Total Assets.

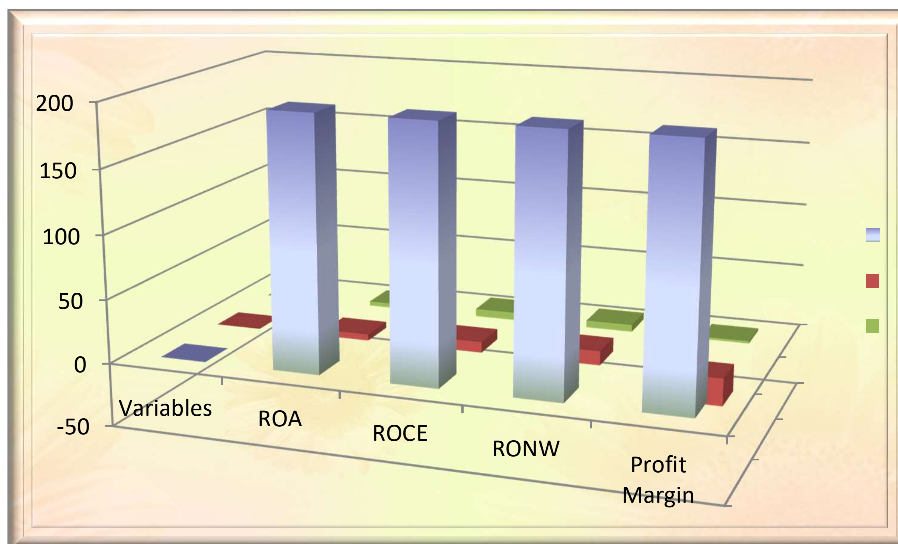
PROMDCF: Pre-Median Industry-Adjusted Cash Flow to Total Assets.

In this model, the slope coefficient (β) captures any relationship between pre- and post-merger cash flow returns. The y-intercept (α), which is independent of pre-merger performance, indicates the difference in yearly control-adjusted performance caused by the merger. This reflects the ratio of the change in POMDCF to the change in PROMDCF. The error term (ε) represents the random deviations from the regression line.

Table 2: Comparison of Premerger to Post-merger performance of selected Variables

Variables	N	Pre- Mean	Post -Mean	Mean Difference	t-Value	P-Value
ROA	197	4.9260	3.5191	-1.40689	2.110	.036*
ROCE	197	8.3943	6.0866	-2.30770	2.382	.018*
RONW	197	10.9816	5.5771	-5.40450	2.461	.015*
Profit Margin	197	-21.6206	1.8251	23.44570	-1.288	.199

Table 2 displays the results of the four profitability measures for the 197 acquiring firms analyzed in the study.



The analysis of profitability measures in the context of mergers and acquisitions reveals a significant decline in post-merger performance for acquiring firms. For Return on Assets (ROA), the pre-merger mean was 4.92, while the post-merger mean dropped to 3.51, with a mean difference of -1.40. The t-value of 2.110 and p-value of 0.036 indicate statistical significance at the 5% level, suggesting a notable decrease in ROA following mergers.

Similarly, the Return on Capital Employed (ROCE) experienced a significant reduction. The pre-merger mean was 8.3943, whereas the post-merger mean fell to 6.0866, resulting in a mean difference of -2.3077. The t-value of 2.382 and p-value of 0.018 further demonstrate statistical significance at the 5% level, indicating a substantial decline in ROCE post-merger.

The analysis of Return on Net Worth (RONW) also highlights a significant drop in post-merger performance. The pre-merger mean stood at 10.981, while the post-merger mean decreased to 5.404, with a mean difference of -5.577. The t-value of 2.461 and p-value of 0.015 confirm statistical significance at the 5% level, pointing to a marked decrease in RONW after mergers.

Out of the four profitability measures examined, three—ROA, ROCE, and RONW—indicate a significant decline in performance during the post-merger period. These findings collectively suggest that the profitability of acquiring firms tends to diminish following

mergers, underscoring the challenges and complexities associated with achieving financial synergies and operational efficiencies post-acquisition.

Table 3: Pre-post-performance comparison of cash flow to total assets

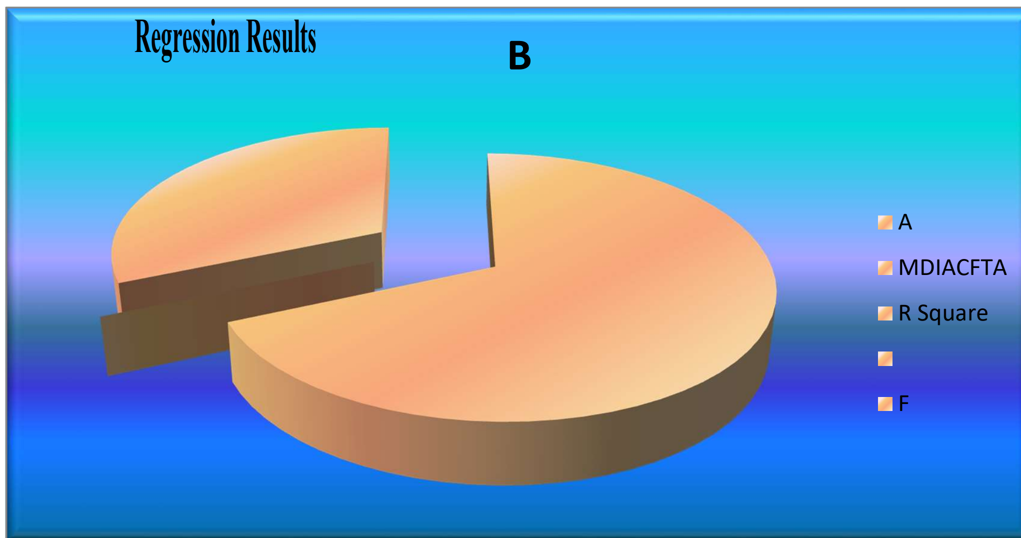
Paired Variables	Pre-Mean	Post - Mean	Mean Difference	t- Value	P-Value
Average of [t-3, t-2, t-1], [t+1, t+2,t+3]	2.22	1.33	-0.89	1.35	0.178
[t-3, t+1]	12.35	11.19	-1.16	1.55	.124
[t-3, t+2]	12.35	10.73	-1.62	2.15	.033*
[t-3, t+3]	12.35	10.50	-1.85	2.31	.022*
[t-2, t+1]	12.22	11.19	-1.03	1.47	.143
[t-2, t+2]	12.22	10.73	-1.49	2.01	.046*
[t-2, t+3]	12.22	10.50	-1.72	2.28	.024*
[t-1, t+1]	12.10	11.19	-0.92	1.08	.282
[t-1, t+2]	12.10	10.73	-1.38	1.49	.137
[t-3, t+3]	12.10	10.50	-1.60	1.67	.096

Table 3 presents a comparative analysis of cash flow to total assets across paired periods. The data reveal a mean difference of -0.89 between the average values of the pre-merger periods (t-3, t-2, t-1) and the post-merger periods (t+1, t+2, t+3). This negative mean difference indicates a decrease in cash flow to total assets following the merger.

The consistently negative mean differences across all paired variables suggest a reduction in cash flow to total assets during the post-merger period compared to the pre-merger period. This trend implies a decline in the acquiring firm's cash flow performance post-merger, highlighting a decrease relative to both pre-merger and subsequent post-merger periods.

Table 4: Regression Results

	B	t	Sig.
A	0.48	0.935	0.3510
MDIACFTA	0.38*	7.435	0.0000
R Square	0.221		
F	55.27*		0.0000”



$$MDIACFA_{POST} = 0.48 + 0.385 MDIACFA_{PRE} + \varepsilon$$

Table 4 presents the regression results for Model 1. The model is statistically significant, evidenced by an F-ratio of 55.27 with a p-value of 0.0000. The beta coefficient for post-median industry-adjusted cash flow is 0.385, indicating a positive relationship with changes in the independent variable, with an increase of 0.385 units in cash flow in response to the independent variable.

Conversely, the intercept value of 0.48 is not statistically significant. This suggests that there is no substantial difference between the median pre-merger industry cash flow and the post-merger industry cash flow.

Table 5: Determinants of Acquiring firms

“VARIABLES	Stock return	ROE
RD	1.344	0.0343
	(2.834)	(0.133)
Leverage	0.434	-0.294**
	(0.917)	(0.131)
Size	-0.242**	0.0270**
Sales growth	(0.115)	(0.0114)
Cash reserve	9.62e-06	-4.67e-06***
	(1.49e-05)	(1.19e-06)
	-0.755	-0.0181
	(0.962)	(0.0971)
Constant	3.704***	0.0744
	(1.083)	(0.0865)
Observations	116	116
R-squared	0.044	0.092

Robust standard errors in parentheses ”
*** p<0.01, ** p<0.05, * <0.1

Table 5 presents the results of a regression analysis aimed at identifying the factors influencing the success of acquired companies. The model uses Return on Equity (ROE) and Sales Return on Investment (SROI) as dependent variables, while the independent variables include characteristics of the acquiring firm such as debt levels, size, cash reserves, sales growth, and research and development (R&D) expenditures.

The findings indicate that larger companies generally experience higher rates of sales growth. This underscores the significance of the target company's size and sales growth rate in evaluating the success of an acquisition. The results highlight that these factors play a critical role in shaping the performance outcomes of the acquiring firms.

Findings

- The study found significant declines in key profitability metrics, such as Return on Assets (ROA), Return on Capital Employed (ROCE), and Return on Net Worth (RONW), following mergers. This suggests that the anticipated benefits of mergers in terms of profitability may not be realized in the short term.
- Analysis of cash flow to total assets reveals a decrease post-merger compared to pre-merger levels. This indicates that mergers can adversely impact the liquidity and cash flow efficiency of acquiring firms.
- Larger acquiring firms and those with higher sales growth rates tend to have better performance outcomes post-merger. This underscores the importance of these factors in determining the success of acquisitions.

Suggestions

- Given the observed decline in post-merger performance, it is crucial for acquiring firms to conduct more rigorous due diligence. This includes evaluating not only the financial health of the target company but also the strategic fit and potential integration challenges.
- Effective integration planning should be a priority to mitigate the decline in performance. Acquiring firms should develop comprehensive strategies to manage operational, cultural, and financial integration to realize the expected benefits of the merger.
- To gain a more comprehensive understanding of M&A performance dynamics, future research should utilize larger sample sizes. This approach will help uncover additional factors that influence the outcomes of acquisitions and provide more robust conclusions.

Conclusions

This study investigated the performance of Indian companies involved in mergers and acquisitions over time. The findings reveal that, on average, Indian acquiring firms exhibit a decline in performance in the years following a merger compared to the years preceding it. Additionally, the study highlights that factors such as the acquirer's size and sales growth rate significantly influence the success of acquisitions. Based on these insights, several conclusions can be drawn:

- Indian acquiring firms often experience reduced performance metrics post-merger compared to their pre-merger performance. This suggests that mergers and acquisitions

may not always enhance firm performance, reflecting the need for more thorough evaluations and planning.

- The size of the acquiring firm and its sales growth rate are crucial determinants of post-merger performance. Larger firms with higher sales growth rates tend to perform better, indicating that these factors are important considerations for successful acquisitions.
- There is a need for more extensive research to better understand the performance implications of mergers and acquisitions. Utilizing larger sample sizes can provide more detailed insights and potentially reveal additional factors influencing the success of acquiring firms.

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