International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

To study on Analysing the Impact of Mergers and Acquisitions on Profitability: A Comparative Study of Pre- and Post-Merger Financial Performance

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ABSTRACT:

Although mergers and acquisitions (M&A) have been important tactics for business development and market expansion, there is ongoing discussion regarding their financial effects. By evaluating financial performance both before and after the transactions, this study seeks to understand how M&A affects profitability. Using financial indicators like revenue growth, return on assets (ROA), and earnings per share (EPS), the study aims to determine whether M&A activity and profitability are significantly correlated. Pre- and post-merger performance are compared, and the hypotheses are tested using statistical tools. The results advance our knowledge of how M&A deals impact shareholder value and financial stability.

Keywords: Mergers and Acquisition, profitability, Financial performance, pre-post mergers, Financial performance , SAB MILLERS AND AB InBev**,** Metrics**,** Companies .

INTRODUCTION :

Companies frequently use mergers and acquisitions (M&A) to increase market presence, create synergies, and boost financial performance. Due to integration difficulties, some mergers result in financial distress, while others boost profitability and operational efficiency. This study compares financial performance before and after the merger to determine whether M&A transactions significantly affect profitability. The study intends to evaluate the financial impact and shifts in shareholder value by looking at case studies in the food and technology industries, particularly SABMiller, and AB InBev. The usefulness of M&A as a business strategy and its effects on stakeholders and investors are discussed in this study.

Review of literature :

- Alex Borodin, Sayabek Ziyadin, Gulnara Islyam, Galina Panaedova (2020) IMPACT OF MERGERS AND ACQUISITIONS ON COMPANIES’ FINANCIAL PERFORMANCE This paper explores the influence of M&A transactions on the financial performance of US and European companies.
- Satish Kumar, Lalit K. Bansal Management Decision (2008) The impact of mergers and acquisitions on corporate performance in India:While going for mergers and acquisitions (M&A) management smell financial synergy or/and operating synergy in different ways.
- Isha Gupta ishagupta74@gmail.com, T. V. Raman, and Naliniprava Tripathy Impact of Merger and Acquisition on Financial Performance: Evidence from the Construction and Real Estate Industry of India (2021):This article aims to examine the impact of mergers and acquisitions (M&A) on the financial performance of the construction and real estate industry, using the broad spectrum of financial ratios.
- Arpita Mehrotra and Arunaditya Sahay Systematic Review on Financial Performance of Mergers and Acquisitions in India (2018):The Mergers and Acquisitions (M&A) wave was triggered post-liberalization in 1991.

STATEMENT OF THE PROBLEMS :

Although mergers and acquisitions are becoming more common, it is still unclear how they affect business profitability. According to some research, M&As result in increased productivity and better financial performance, but other studies show that the anticipated advantages are not realized. Investors and business decision-makers are uncertain when the financial effects of M&As are not well understood. This study aims to evaluate the disparities between pre- and post-merger financial performance and investigate whether M&A transactions have a significant impact on profitability.

RESEARCH GAP :

The majority of M&A studies currently in existence concentrate on developed markets, with little attention paid to emerging economies such as India. Furthermore, prior research frequently prioritizes immediate financial results over long-term profitability. Through the use of thorough financial metrics and case studies, this study attempts to close these gaps by comparing the financial performance of Indian corporate sector companies before and after M&As.

OBJECTIVES :

- To analyse the impact of merger and acquisition on profitability
- Comparative study on pre and post-mergers and acquisition

HYPOTHESES OF THE STUDY :

- **Null Hypothesis (H_0):** To analyse if there is NO significant association on the impact of mergers and acquisition on profitability .
- **Alternative Hypothesis (H_1):):** To analyse if there is a significant association on the impact of mergers and acquisition on profitability .
- **Null Hypothesis (H_0):** To understand if there is NO significant association between pre and post mergers and acquisition
- **Alternatives Hypothesis (H_1):** To understand if there is a significant association between pre and post mergers and acquisition

SCOPE OF THE STUDY :

This study examines how mergers and acquisitions affect business profitability, particularly in the food and technology industries. For businesses that have engaged in M&A transactions, it looks at financial performance metrics like return on assets (ROA), earnings per share (EPS), and net profit margin. The study includes statistical tests to assess the significance of financial changes and examines a chosen time frame before and after the mergers to assess long-term effects. Financial analysts, investors, legislators, and corporate strategists will find the results useful in determining how well M&As work as a growth strategy.

RESEARCH METHODOLOGY :

Data collection method

In this research project I am using secondary data will be directly collected from the company website which has already been published

Research tools and Techniques

You can use a variety of research instruments and methodologies to examine how mergers and acquisitions affect profitability. Your main source will be secondary data from financial statements that have been made public. Pre-merger and post-merger performance within the same company can be compared using the paired sample t-test for statistical analysis, which aids in determining the connections between M&A and financial metrics. Profitability ratios such as ROA, ROE, and EPS are important financial indicators. Data analysis can be done with R or SPSS. A comprehensive review of the literature will give background information from previous research.

DATA ANALYSIS AND INTERPRETATION :

1.To Analyse the Impact of mergers and acquisitions on profitability Ratio, liquidity Ratio, solvency Ratio.

- **Null Hypothesis (H_0):** To analyse if there is NO significant association on the impact of mergers and acquisitions on profitability .
- **Alternative Hypothesis (H_1):** To analyse if there is a significant association on the impact of mergers and acquisition on profitability .

Table 4.3 – paired sample T-test (profitability Ratio)

Metric	Pre-Merger Mean	Post-Merger Mean	Mean Difference	Pre-Merger SD	Post-Merger SD	T-Value	Sig (2-tailed)
Return on Assets (ROA)	3.96%	3.24%	-0.72%	0.114%	0.114%	9.98	0.0000086
Return on Equity (ROE)	9.96%	8.16%	-1.80%	0.114%	0.114%	24.96	0.000000007
Net Profit Margin	4.38%	8.45%	+4.07%	1.02%	2.60%	-3.48	0.0177
Earnings Per Share (EPS)	₹7.37	₹22.99	+₹15.63	₹0.76	₹8.83	-4.93	0.0015

Interpretation profitability Ratio :

The analysis uses important financial metrics to assess how mergers and acquisitions affect profitability. Following the merger, the mean differences in Return on Equity (ROE) and Return on Assets (ROA) were -1.80% and -0.72%, respectively. A statistically significant drop in profitability is indicated by the highly significant p-values (0.0000086 and 0.000000007) for both metrics. However, there were notable changes with p-values of 0.0177 and 0.0015 for Net Profit Margin, which rose by 4.07%, and Earnings Per Share (EPS), which increased sharply from ₹7.37 to ₹22.99.These findings support the acceptance of the alternative hypothesis (H_1: Significant association between M&A and profitability) and the rejection of the null hypothesis (H_0: No significant association between M&A and profitability). This indicates that the merger and acquisition had a mixed effect; asset and equity returns decreased, presumably as a result of higher financial leverage or restructuring expenses, while overall profitability increased in terms of net margin and EPS.

2. Liquidity Ratios

Ratio	Pre-Merger	Post-Merger	Post-Merger	SD	T-Value	Significance (2-tailed)
Current Ratio	0.7006	0.6743	-0.0262	0.0186	9.4445	0.000006
Investment to Total Asset	0.0017	0.0005	-0.0013	0.0009	-2.0797	0.0673
Advances to Total Asset	0.0004	0.0004	-0.00001	0.000004	-0.5956	0.5661
Deposit to Total Asset	0.0458	0.0464	0.0005	0.0004	-0.5238	0.6131

Interpretation for liquidity Ratio:

Using liquidity and investment-related ratios, the analysis assesses how mergers and acquisitions affect financial stability. With a significant p-value of 0.000006, the current ratio dropped marginally from 0.7006 to 0.6743, suggesting a statistically significant drop in liquidity following the merger. With a p-value of 0.0673, which is marginally above the 0.05 cutoff, the Investment to Total Asset ratio also decreased (from 0.0017 to 0.0005), indicating that the decline is not statistically significant. In a similar vein, Advances to Total Assets had no discernible change (0.0004 before and after the merger), with a p-value of 0.5661. Although the ratio of deposits to total assets increased slightly (from 0.0458 to 0.0464), the p-value of 0.6131 indicates that the change is not statistically significant. With the exception of the Current Ratio, which exhibits a notable drop following the merger, the null hypothesis (H_0) cannot be rejected in light of these findings for the majority of ratios. According to this, the merger had little effect on overall financial stability, with liquidity being the area most impacted, perhaps as a result of altered working capital management or higher short-term obligations. Nonetheless, deposits, advances, and investment all stayed consistent, suggesting that the business stuck to its asset allocation plan after the merger.

3. Solvency Ratios

Ratio	Pre-Merger	Post-Merger	Mean Difference	SD	T-Value	Significance (2-tailed)
Debt Ratio	0.6845	0.6553	-0.0291	0.0206	10.2688	0.00000287
Times Interest Earned Ratio	3.0060	3.1786	0.1726	0.1221	-43.9425	8.17e-12
Debt-to-Equity Ratio	2.1692	1.9012	-0.2680	0.1895	76.8136	5.43e-14
Capital Ratio	0.3155	0.3447	0.0291	0.0206	-5.2631	0.000518

Interpretation of Solvency Ratios:

According to the analysis, the merger had a major effect on financial leverage. While the Times Interest Earned Ratio improved, indicating better interest coverage, the Debt Ratio and Debt-to-Equity Ratio decreased, indicating less reliance on debt. Stronger equity financing was reflected in the rising capital ratio. The null hypothesis (H_0) is rejected because all changes are statistically significant, indicating that the merger improved capital structure and decreased reliance on debt, thus contributing to financial stability.

2. Comparative study on pre and post-mergers and acquisitions.

- **Null Hypothesis (H_0):** To understand if there is NO significant association between pre and post-mergers and acquisition
- **Alternatives Hypothesis (H_1):** To understand if there is a significant association between pre and post-mergers and acquisition

Table 4.2

2Paired sample T-test

	Pre-Merger (2015)	Post-Merger (2017)	N	Standard Deviation	Standard Error	Correlation	Significance (2-tailed)	95% Confidence Interval (Lower)	95% Confidence Interval (Upper)	T-Value
Pair 1	4.8420	3.5520	5	1.50995	0.67527	0.959	0.129	-0.58485	3.16485	1.910

Interpretation

A strong correlation between pre- and post-merger performance is suggested by the paired sample t-test results, which show a decline in the mean value from 4.8420 (pre-merger) to 3.5520 (post-merger), with a high correlation of 0.959. The difference is not statistically significant at the 5% level, though, as the p-value (0.129) is higher than 0.05. The lack of compelling statistical evidence for a significant change is further supported by the T-value (1.910), which is within the confidence interval (-0.58485 to 3.16485).

Therefore, the null hypothesis (H_0), which suggests that the merger had no significant impact, cannot be rejected based on the results. Although the mean value has decreased, it is not significant enough to verify that the merger had a significant impact. This supports the study's goal of evaluating the financial effects of mergers by emphasizing that post-merger performance might have been impacted by variables other than the merger.

FINDING OF THE STUDY:

1. Effect on Profitability: Following the merger, ROE and ROA sharply decreased, but EPS and net profit margin sharply increased, indicating increased operational effectiveness and overall profitability.

2. .Impact on Solvency and Liquidity: While solvency improved with lower debt ratios, better interest coverage, and stronger equity financing, liquidity decreased as the current ratio sharply decreased.

3. Comparative Pre- and Post-Merger Analysis: The overall impact of the merger was inconclusive because, despite some changes in financial performance, the paired sample t-test results were not statistically significant.

CONCLUSION:

Mergers and acquisitions have a range of financial impacts, according to the study. ROA and ROE decreased, indicating that the first post-merger period involved financial adjustments, even though profitability as measured by Net Profit Margin and EPS increased. Managing liquidity is still difficult and calls for improved working capital plans. With less reliance on debt, the capital structure improved and financial stability increased. The overall comparison of pre- and post-merger performance, however, was equivocal, highlighting the fact that mergers by themselves do not ensure financial success. To guarantee the long-term advantages of M&A transactions, a well-thought-out post-merger integration strategy is essential

SUGGESTION AND RECOMMENDATIONS :

- Increasing Post-Merger Profitability Companies should concentrate on maximizing asset utilization and cost efficiency to increase returns, as ROA and ROE decreased after the merger.
  In order to maintain profitability gains, businesses should invest in improved operational integration and synergy realization, as indicated by the increase in Net Profit Margin and EPS.

- Improving the Management of Liquidity Following a merger, a drop in the current ratio suggests liquidity issues, which businesses can resolve by managing cash flow effectively and lowering short-term obligations.
  Liquidity levels after a merger will be enhanced by putting in place stricter working capital policies (such as improving the management of payables and receivables).

- Capital Structure Optimization for Financial Stability The decline in the debt-to-equity and debt ratios indicates that businesses depended less on debt after the merger. To prevent using too much leverage, businesses should keep a balanced mix of debt and equity financing .Improving interest coverage ratios will guarantee that businesses can pay off their debts with ease.
  4. Integration Strategy After a Merger Post-merger integration is essential, as indicated by the mixed financial effects of M&As.

- Businesses ought to: Create a well-organized post-merger integration strategy with an emphasis on coordinating operational systems and corporate cultures.Periodically review and assess financial performance so that strategies can be modified as necessary.Maintain management and leadership continuity to avoid delays in execution and decision-making.

- Carrying Out Extended Performance Assessments Businesses should: Perform longitudinal studies on financial performance instead of depending only on short-term financial data, as the comparison between pre- and post-merger performance was inconclusive. Utilize sophisticated financial modeling methods to evaluate how M&As will create value over the long run.

- Enhancing Decision-Making and Transparency Businesses should improve the financial disclosures they make about M&A deals so that stakeholders and investors are aware of the risks and rewards.
  Better frameworks for risk assessment and due diligence should be used prior to mergers in order to anticipate possible financial difficulties and plan appropriately.

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