Impact of Mergers and Acquisitions on Firms Long Term Performance: A Pre Post Analysis of ICICI Bank

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Abstract

The Indian banking industry is considered to be growing swiftly and has altered itself into a dynamic industry.With the rapidly advancing technology and an increase in competitions, mergers and acquisitions are the immediate choice and an effective strategy to penetrate new markets. Banks being the underpinning foundation of our economy, frequently merge in order to expand globally. In terms of market capitalization, ICICI Bank is the largest bank in India, while it ranks second in terms of total assets. Through the merger, ICICI Bank was able to access Sangli Bank's clientele, workforce, and branch network in both urban and rural locations. Also the merger assisted ICICI Bank in growing its small business and rural banking activities. The present study employed financial ratios to analyze the financial performance and economic value added to analyze the economic performance. The study period considered was three years post and three years pre merger. Thestatistical results of hypothesis testing, reveals that the merger has no significant) impact on the financial ratios of ICICI Bank. Hence, in conclusion, mergers and acquisitions (M&A) do not appear to have a notable impact on the key financial metrics of ICICI Bank, emphasizing that the bank's performance and stability are maintained independently of such strategic initiatives.

Keywords: Mergers and Acquisition (M&A), Long Term Performance, ICICI Bank, Wilcoxon Signed Rank Test.

Introduction

Mergers and acquisitions (M&A) are strategic tools employed by firms to achieve growth, enhance competitiveness, and unlock synergies. In the financial sector, particularly in banks, Mergers and acquisitions (M&A) activities are often driven by the need to expand customer bases, diversify product offerings, and achieve operational efficiencies. However, the effectiveness of these strategies is a topic of considerable debate, as the outcomes depend on various factors, including integration processes, market conditions, and organizational alignment.

This paper examines the impact of M&A on firms' long-term performance, with a specific focus on ICICI Bank, a prominent player in the Indian banking sector. ICICI Bank has been a frontrunner in utilizing M&A as a growth strategy, engaging in high-profile acquisitions to strengthen its position in the competitive

financial landscape. The total assets of ICICI Bank were Rs. 282,373 crore as of September 30, 2006. Through the merger, ICICI Bank will be able to access Sangli Bank's clientele, workforce, and branch network in both urban and rural locations. In addition to enhancing its urban distribution network, the merger would assist ICICI Bank in growing its small business and rural banking activities. To evaluate whether the anticipated benefits of these M&A activities a pre-post analysis was conducted.

Objectives

- To assess the extent to which M&A have influenced ICICI Bank's financial health in long term.
- To analyze the economic performance of ICICI Bank in the long term.

Review of Literature

The banking sector has witnessed significant transformations over the years, with mergers and acquisitions (M&A) playing a pivotal role in reshaping its landscape. Mergers and acquisitions (M&A) are strategic, financial and organizational tools aimed at enhancing operational efficiency, expanding market reach, and improving competitiveness. Financial performance refers to companies performance in terms of financial returns, which is done by employing several evaluation methods and financial metrics(Weston,Chung and Siu, 2001).

Mergers and acquisition (M&A) in banks appear to increase profit efficiency and help diversify the portfolio risks of the participants leading to real economies where they occurred (Berger, Demsetz and Strahan, 1999). Bank mergers and acquisition (M&A(are among the most widely studied and highly contentious issues in finance economics (Cyree, 2010).

Financial ratios are the most commonly used ways to measure bank profitability(Mamatzakis, 2007). Financial Ratios are helpful in analyzing the financial statements and also help in its interpretation.

Another study found financial synergic impact on ICICIBank after merger.It evaluated whether the merger created any financial synergy on shareholders' value. It was concluded that economic value added (EVA) and market value added (MVA) of the banks improved after merger. Even the broad range of manpower and product also been achieved (Ashima, 2013).

The effect of mergers and acquisitions (M&A) on the financial efficiency of Nigerian bankswas carried out. The study compared the pre mergers indices with the post-merger indices to ascertain the financial efficiency of the chosen banks using their gross profits, profit after tax, and net assets. Paired t test method was employed to the data. The period following mergers and acquisitions (M&A) was discovered to be financially more effective than the time before mergers and acquisitions (Joshua, 2011).

Methodology

The Study
The study relates to finding out the impact of mergers and acquisition (M&A) on long term performance of ICICI Bank. The case of merger of Sangli Bank with ICICI Bank in the year 2007 was considered.

The Data and Period

Secondary data was collected from CMIE (Centre for Monitoring Indian economy) and RBI (Reserve Bank of India) websites. Data included five categories of ratios they were profitability ratios, efficiency ratios, financial performance ratios, capital structure ratio, liquidity ratios and economic value added (EVA). For this 3 years pre and 3 years post-merger data is collected i.e. from 2005 to 2011 (except 2007-08 which is the year of merger).

Tools for Data Analysis

On the basis of fulfilling the normalcy assumption, both parametric and non-parametric statistical techniques were utilized. A parametric test is used when normalcy is attained; otherwise, a non-parametric test is used. After validating the normality of data statistical tools, paired "t" test (when the value of Shapiro Wilk Test is > 0.05) and Wilcoxon Signed Rank Test (when the value of Shapiro Wilk Test is <0.05)

For the purpose of statistical analysis data normality is checked by applying Shapiro Wilk Test. the results for Test of Normalityfor Data of Financial Ratios and Economic Value Added (EVA) of ICICI Bank is as foolows:

Table 1. Test of Normalityfor Data of Financial Ratios and Economic Value Added (EVA) of ICICI Bank

	Kolmogorov-Smirnov[a]			Shapiro Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Profitability Ratios	.270	6	.194	.835	6	.018
Efficiency Ratios	.375	6	.009	.711	6	.008
Financial Performance Ratios	.316	6	.062	.760	6	.025
Capital Structure Ratio (Debt / Equity Ratio)	.261	6	.200[*]	.846	6	.047
Liquidity Ratios	.313	6	.066	.749	6	.020
Economic Value Added	.309	6	.075	.724	6	.051

(Source: Self-created with help of SPSS 20 Output)

In the study Shapiro Wilk Test was used, because sample size was less than 50 (<50). Hence the above table demonstrated that the Shapiro Wilk Test yielded values exceeding significance value 0.050 in case of capital structure ratio and economic value added (EVA), suggested that the data adheres to normal distribution. Given the normality of the data, it was suitable for the application of parametric tests, thus Paired 't' Test was utilized for analysis while for non-normal data Wilcoxon Signed Rank Test was applied (https://www.sciencedirect.com/topics/mathematics/wilk-test).

Results and Analysis

For the purpose of analysis six hypotheses is constructed and tested with the help of statistical tools.

Analysis on Profitability Ratio

To analyze the impact of mergers and acquisitions (M&A) on profitability ratios, like operating profit margin ratio, net profit margin ratio, return on net worth ratio, return on capital employed and return on total assets and net interest margin ratio of ICICI Bank hypotheses constructed were as follows:

H_{01}: There is No Significant Impact of Merger and Acquisition (M&A) on the Profitability Ratio of ICICI Bank.

H_{01a}: There is A Significant Impact of Merger and Acquisition (M&A) on the Profitability Ratio of ICICI Bank.

Table2. Wilcoxon Signed Rank Test Analysis on Profitability Ratios of ICICI Bank

	Pre and Post Profitability
Z	$-.639^{b}$
Asymp. Sig. (2-tailed)	.523

(Source: Self-created with the help of SPSS 20 Output of Wilcoxon Signed Rank Test)

Results

A Wilcoxon Signed Rank, is non-parametric test was utilized for statistical analysis. The findings indicated acceptance of the null hypothesis over the alternate hypothesis (Table 2, p=0.523 > 0.050), indicated that the merger did not affect profitability of ICICI Bank. The null hypothesis H_{01}, there is no significant impact of merger and acquisition (M&A) on ICICI Bank's profitability ratio was accepted. So, there is no significant impact of merger and acquisition (M&A) on ICICI Bank's profitability ratio.

Analysis on Efficiency Ratios

To analyze the impact of mergers and acquisitions (M&A) on efficiency ratios, like profitability per employee, non interest income ratio, and non interest expense ratio of ICICI Bank hypotheses constructed were as follows:

H_{02}: There is No Significant Impact of Merger and Acquisition (M&A) on the Efficiency Ratio of ICICI Bank.

H_{02a}: There is A Significant Impact of Merger and Acquisition (M&A) on the Efficiency Ratio of ICICI Bank.

Table 3. Wilcoxon Signed Rank Test Analysis on Efficiency Ratios of ICICI Bank

	Pre and Post Efficiency
Z	-1.472^{b}
Asymp. Sig. (2-tailed)	.141

(Source: SPSS 20 Output of Wilcoxon Signed Rank Test Analysis)

Results

The null hypothesis H_{02}, which states that there is no significant impact of merger and acquisition (M&A) on the efficiency of ICICI Bank, has been accepted. For the purpose of statistical analysis non-parametric test Wilcoxon Signed Rank Test is applied. Statistical result reveals that null hypothesis is accepted against alternate hypothesis (Table 3., p=0.141 > 0.050). Hence it indicates that merger has not affected the efficiency of ICICI Bank. The pre and post-merger data of ICICI Bank is considered.

Analysis on Financial Performance Ratios

To analyze the impact of mergers and acquisitions (M&A) on financial performance ratios such as interest coverage ratio and earnings per share of ICICI Bank hypotheses constructed were as follows:

H_{03}: There is No Significant Impact of Merger and Acquisition (M&A) on the Financial Performance of ICICI Bank.

H_{03a}: There is A Significant Impact of Merger and Acquisition (M&A) on the Financial Performance of ICICI Bank.

Table 4. Wilcoxon Signed Rank Test Analysis on Financial Performance Ratios of ICICI Bank

	Pre Post Financial Performance
Z	-1.572[b]
Asymp. Sig. (2-tailed)	.116

(Source: SPSS 20 Output of Wilcoxon Signed Rank Test)

Results

The null hypothesis H_{03}, indicating no significant impact of merger and acquisition (M&A) on the financial performance of ICICI Bank has been accepted. For the purpose of statistical analysis non-parametric test Wilcoxon Signed Rank test is applied. Statistical result reveals that null hypothesis is accepted against alternate hypothesis (Table 4., p=0.116 > 0.050). Hence it indicates that merger has not affected the financial performance of ICICI Bank. The pre and post-merger data of ICICI Bank is considered.

Analysis on Capital Structure Ratio of ICICI Bank

To analyze the impact of mergers and acquisitions (M&A) on capital structure ratio such as debt / equity ratio of ICICI Bank hypotheses constructed were as follows:

H_{04}: There is No Significant Impact of Merger and Acquisition (M&A) on the Capital Structure Ratio of ICICI Bank.

H_{04a}: There is A Significant Impact of Merger and Acquisition (M&A) on the Capital Structure Ratio of ICICI Bank.

Table 5. Wilcoxon Signed Rank Test Analysis on Capital Structure Ratio of ICICI Bank

	Pre Post Capital Structure
Z	-1.604[b]
Asymp. Sig. (2-tailed)	.109

(Source: SPSS 20 Output of Wilcoxon Signed Rank Test Analysis)

Results

The null hypothesis H_{04} which states that there is no significant impact of merger and acquisition (M&A) on the capital structure ratio of ICICI Bank is accepted. For the purpose of statistical analysis non-parametric test Wilcoxon Signed Rank test is applied. Statistical result reveals that null hypothesis is accepted against alternate hypothesis (Table 5., p=0.109 > 0.050). Hence it can be said that merger has no significant effect on the capital structure ratio of ICICI Bank. The pre and post merger data of ICICI Bank is considered.

Analysis on Liquidity Ratios of ICICI Bank

To analyze the impact of merger and acquisition (M&A) on liquidity ratios such as average cost of funds ratio and credit to deposit ratio of ICICI Bank hypotheses were constructed as follows:

H_{05}: There is No Significant Impact of Merger and Acquisition (M&A) on the Liquidity Ratio of ICICI Bank.

H_{05a}: There is A Significant Impact of Merger and Acquisition (M&A) on the Liquidity Ratio of ICICI Bank.

Table 6. Wilcoxon Signed Rank Test Analysis on Liquidity Ratios ICICI Bank

	Pre Post Liquidity Ratios
Z	-1.604[b]
Asymp. Sig. (2-tailed)	.116

(Source: SPSS 20 Output of Wilcoxon Signed Rank Test Analysis)

Results

The null hypothesis H_{05}which states that there is no significant impact of merger and acquisition (M&A) on the liquidity ratio of ICICI Bank is accepted. For the purpose of statistical analysis non-parametric test Wilcoxon Signed Rank Test is applied. Statistical result reveals that null hypothesis is accepted against alternate hypothesis (Table 6., p=0.116 > 0.050). Hence it can be said that merger has not affected the liquidity ratios of ICICI Bank. The pre and post merger data of ICICI Bank is considered.

Economic Value Added (EVA) of ICICI Bank

To analyze the impact of economic value added (EVA) on ICICI Bank hypotheses is constructed as follows:

H_{06}: There is No Significant Impact of Merger and Acquisition (M&A) on Economic Value Added (EVA) of ICICI Bank.

H_{06a}:There is A Significant Impact of Merger and Acquisition (M&A) on Economic Value Added (EVA) of ICICI Bank.

Table 7.Paired 't' Test on Economic Value Added (EVA) of ICICI Bank

	Paired Differences							
				95% Confidence Interval of the Difference				Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	df	
Pair 1 EVA. Pre-Post EVA	594.52667	981.10411	566.44072	-1842.67106	3031.72440	1.050	2	.404

(Source: SPSS 20 Output of Paired 't' Test)

Results

The null hypothesis H_{06} which states that there is no significant impact of merger and acquisition (M&A) on the economic value added (EVA) of ICICI Bank is accepted. For the purpose of statistical analysis parametric test Paired 't' Test is applied. Statistical result reveals that null hypothesis is accepted against alternate hypothesis (Table 7., p=0.404 > 0.050). Hence it can be said that merger has not affected the economic value added (EVA) of ICICI Bank. The pre and post merger data of ICICI Bank is considered.

Findings

The rejection of all six null hypotheses (H_{01}, H_{02}, H_{03}, H_{04}, H_{05}, and H_{06}) suggests that merger and acquisition (M&A) activity have a considerable impact on ICICI Bank's financial and operational aspects. The results can be summarized as:merger and acquisition (M&A) have a significant impact on ICICI Bank's profitability ratios, indicating these deals contribute to the bank's capacity to generate profits.The rejection of null hypothesis (H02)in case of efficiency ratio indicates that mergers and acquisitions (M&A) affect a bank's operational efficiency by altering its revenue-generating and cost-management practices.The rejection of null hypothesis (H03)in financial performance ratio demonstrates that merger and acquisition (M&A) operations have a major impact on ICICI Bank's overall financial performance. The rejection of null hypothesis (H03)in financial performance ratio demonstrates that merger and acquisition (M&A) operations have a major impact on ICICI Bank's overall financial performance. This might involve improvements in market share, sales, or other performance indicators.The impact on the capital structure ratio (H04) implies that merger and acquisition(M&A) activities modify the balance of debt and equity, thereby changing the bank's financial leverage and funding strategies.The rejection of null hypothesis (H05) in liquidity ratio suggests that M&A has an impact on ICICI Bank's liquidity, potentially limiting its capacity to satisfy short-term obligations and manage cash flows properly.While the rejection of null hypothesis in economic value added (EVA) (H06) indicates that merger and acquisition (M&A) activities have a significant impact on the bank's ability to generate value for its shareholders, above the cost of capital.

Conclusion

In conclusion the study highlights the importance of mergers and acquisitions (M&A) in developing ICICI Bank's financial and operational characteristics. The results indicate that mergers and acquisitions (M&A) can be used as an effective strategic instrument for improving financial performance, operational efficiency,

and shareholder's valuecreation. However, further research and thorough analysis is needed to determine the exact components causing these effects and maximize future mergers and acquisitions (M&A) plans.

Suggestion

It is recommended that the study should be reviewed five years or more after merger, since the influence on ICICI Bank's long-term performance is not evident or obvious in three years duration before and after the merger.

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Annexure

Table. Pre and Post-Merger Ratios andEconomic value Added (EVA)of ICICI Bank

Ratios	Pre Merger			Post Merger		
	2005	**2006**	**2007**	**2009**	**2010**	**2011**
Profitability Ratios						
Operating Profit Margin Ratio (%)	15.73	18.04	18.97	20.75	28.11	26.26
Net Profit Margin Ratio (%)	14.54	12.9	10.04	8.46	11.44	15.04
Return on Net Worth Ratio (%)	18.37	14.44	12.91	6.98	7.45	9.27
Return on Capital Employed Ratio (%)	3.63	3.97	3.6	2.43	2.61	3.19
Return on Total Asset Ratio (%)	1.26	1.19	1	0.86	1.01	1.28
Net Interest Margin Ratio (%)	2.4	2.7	2.19	2.4	2.5	2.64
Efficiency Ratios						
Profitability Per Employee (Rs)	11	10	9	11	9	10
Non Interest Income Ratio (Times)	2.52	2.13	2.42	1.98	2.09	1.74
Non Interest Expenses Ratio (Times)	2	1.78	1.94	1.86	1.61	1.62
Financial Performance Ratios						
Interest Coverage Ratio (%)	1.36	1.32	1.22	1.21	1.29	1.39
Earnings Per Share (Rs)	27.33	32.15	34.64	33.7	35.99	45.06
Capital Structure Ratio						
Debt / Equity Ratio (Times)	3.39	2.22	2.93	1.88	1.83	1.99
Liquidity Ratios						
Average Cost of Funds Ratio (%)	5.8	5.7	6.6	7	5.8	5.37
Credit to Deposit Ratio (%)	62	70	74	72	89.7	95.91
Economic Value Added (Rs)	-1227.34	-2609.56	-1763.11	-2948.92	-2739.95	-1694.72

(Source: Self-created with help of CMIE Data)