

A Study on Mergers and Acquisitions in the Indian Banking Sector: Pre- and Post-Merger Performance Analysis of Kotak Mahindra Bank

Mr. Ponnamm Anil Kumar, *Assistant Professor, Dept of MBA,*
Vaageswari College of Engineering(Autonomous), Karimnagar, TG.

ABSTRACT

In the early 1990s, the Indian government implemented substantial financial performance metrics as part of globalization and post-liberalization. Consequently, India's financial system has made significant progress and commenced reform. This study analyzes the financial performance of major financial institutions prior to and following mergers. The Indian banking sector is undergoing "consolidation." This study analyzes the impact of mergers and acquisitions on the profitability of consolidation. This inquiry investigated the performance, strengths, and problems of Kotak Mahindra Bank. Financial indicator analysis must encompass both pre- and post-merger perspectives. The data encompasses the financial performance of a consortium of banks for the five years preceding and succeeding the merger. A merger inquiry employs statistical techniques such as the arithmetic mean, standard deviation, t-test, and p-value to evaluate financial ratios prior to and following the analysis. Various ratios are employed to evaluate the financial performance of consolidation banks before to and following mergers. The Bank's analysis identified substantial discrepancies in GPM, NPM, OPM, ROCE, and D/E Ratio. The gross and operational profit margins, interest coverage, bank deposit ratio, and deposits per employee remained constant. The investigation, which differentiated between pre- and post-merger eras, concluded that banks derive advantages.

Keywords: *Efficiency; Merger and Acquisitions; Financial Ratios.*

Article history: Received 10 June 2026 · Revised 20 June 2026 · Accepted 16 July 2026 · Published 27 July 2026

I. INTRODUCTION

Globalization is driven by heightened rivalry, financial deregulation facilitating capital flows, and swift technological breakthroughs. A confluence of these forces precipitated globalization. This has augmented the presence, influence, and engagement of foreign-owned firms in national economies. This also stimulates numerous domestic institutional reform concepts. This method has restructured an organization's resources and revolutionized numerous industries. Mergers and acquisitions (M&A), commonly referred to as corporate transactions, prevail in worldwide industrial ownership. Consequently, companies frequently discover it more feasible to reorganize and concentrate on their core competencies.

The majority of mergers and acquisitions (M&A) are motivated by financial synergies, market dominance, distribution networks, or geographic growth, rather than technological obstacles. Innovation is crucial in the contemporary economy to create a high-tech niche. Although innovation may not be the primary impetus for the transaction, these firms will opt for the financially sustainable and innovative approach. Pantumur and Stephan (2007) assert that technology is the paramount factor in the contemporary market. The size, history, and equity of the company are of secondary importance. Following a significant alteration in industrial strategy in 1991, India was prepared for its inaugural mergers and acquisitions. Modifying policy to facilitate mergers and acquisitions commences with the elimination of prohibitive provisions from the Monopolies and Restrictive Trade Practices (MRTP) Act. The FEMA of 2000 and the FERA of 1993 were subsequently revised. The Competition Commission of India (CCI) was constituted under the Competition Policy Act of 2002 to eliminate impediments to competition. The potential for antitrust infringements arising from mergers and acquisitions, collusive bidding, and cartel establishment necessitated the founding of this commission. This

commission was established for these reasons.

India's economic reforms have alleviated company inflexibilities. In recent years, businesses have restructured to capitalize on policy opportunities and confront competitive obstacles. Corporations are allegedly undergoing this procedure to sustain competitiveness and value. Indian enterprises are increasing their investments owing to the rapidly expanding economy. In the last ten years, mergers and acquisitions have risen markedly. With the escalation of rivalry, local businesses fortified their positions (Basant, 2000). Indian multinationals have capitalized on this opportunity to develop internationally.

Restructuring" denotes the process of reforming a corporation to enhance development or value. M, E, R, G, E, and R represent merging, entities, resources, growth, enrichment, and renovation, respectively. A formal acquisition entails one corporation purchasing another and assuming control of its operations. Notwithstanding the target company's legal autonomy, the purchaser maintains control. A merger is the formal amalgamation of two corporations. Mergers and acquisitions effectively reallocate underutilized resources to profitable areas. Managers are motivated to exert effective control over their organization and optimize resource use to enhance value, as influential individuals are more inclined to buy inadequately run companies.

Mergers and Acquisitions

Restructuring" denotes the process of reforming a corporation to enhance development or value. M, E, R, G, E, and R represent merging, entities, resources, growth, enrichment, and renovation, respectively. A formal acquisition entails one corporation purchasing another and assuming control of its operations. Notwithstanding the target company's legal autonomy, the purchaser maintains control. A merger is the formal amalgamation of two corporations. Mergers and acquisitions effectively reallocate underutilized resources to profitable areas. Managers are motivated to exert effective control over their organization and optimize resource use to enhance value, as influential individuals are more inclined to buy inadequately run companies.

II- REVIEW OF LITERATURE

The primary objective of this study is a comprehensive literature review of previous research. Researchers have examined bank mergers and acquisitions. Scale, profitability, security, resilience, and financial expansion are paramount. This study addresses the existing research gap.

Vashisht (1987): Six characteristics were employed to assess public sector banks from 1971 to 1983. Branch expansion, credit, deposits, priority sector advances, DRI advances, and net profit were the variables. The researcher categorizes banks as exceptional, good, fair, or terrible based on a composite weighted growth metric. He advocates for SWOT analysis, financial projections, marketing strategies, and deposit mobilization to enhance performance. All of these solutions intend to enhance performance.

Tehrani and Cornett (1992): From 1982 to 1987, we examined the post-merger performance of a well-known bank merger. The research indicated that the banks' collective performance may result from their improved ability to attract loans and deposits, promote employee productivity, and manage assets to optimize profitability. The research indicates a significant association between aberrant returns during announcements and various other financial performance variables. This indicates that market participants expected enhanced financial performance from bank mergers.

Mantravadi and Reddy (2007): The study analyzed various financial factors before and after mergers from 1992 to 2003 to evaluate the impact of mergers on the productivity and operational performance of acquiring public limited companies in India. The study was conducted in India. Mergers between identical companies yield inferior ROI and performance. This indicates that these mergers were motivated by a desire to augment the asset base rather than enhance efficiency. Soni and Jain (2013) analyze bank mergers with financial metrics such as gross profit margin, net profit margin, operational profit margin, return on capital used, return on equity, and debt-to-equity ratio. This study employs financial data to illustrate the transformations of acquired enterprises. T-testing assessed the statistical significance of mergers and acquisitions and their effects on bank performance. Subsequent to the merger and purchase, banks capitalized on the opportunity.

Need of the Study

The investigation assessed the performance of the chosen financial institutions prior to and subsequent to their merger, concentrating on the years following 2000. The RBI was consulted for statistics and information to accomplish this objective. Included were the corporate annual reports from the selected banks and the Bulletin Banking India trends and progress reports. The effects of bank consolidation on productivity and profitability were analyzed prior to and following mergers. This assessment examined enhancements in the banking sector, along with liberalization, privatization, and globalization. Bank productivity, profitability, and efficiency have diminished in recent years. This study analyzes the impact of mergers on business profitability to comprehend bank consolidation. This is accomplished by financial performance metrics such as ROCE, RONW, and PM. The evaluation of bank performance is conducted prior to and subsequent to mergers.

Scope of the Study

All Indian banks are included in this analysis. Although a merger for consolidation is feasible, branch expansion and operational capacity are critical financial metrics of growth and scale. The investigation will concentrate on financial institution consolidations from 2002 to 2014.

Objectives of the Study

- This document will provide a comprehensive analysis of the Indian monetary system.
- To evaluate the impact of the bank's sampling initiatives in India on profitability.
- To examine the advantages and disadvantages of integrated banks in India and the benefits to their clients.

Hypothesis

Kotak Mahindra Bank exhibited outstanding performance prior to and throughout the merger.

H0= The pre- and post-merger performance of Kotak Mahindra Bank is statistically indistinguishable.

H1= Kotak Mahindra Bank had divergent performance pre- and post-merger.

III - RESEARCH DESIGN

Sample, Data Sources and Period of the Study

The financial performance of Kotak Mahindra Bank was analyzed in a study investigating the impact of mergers and acquisitions on an individual financial institution. The bank's annual reports presented financial information. The research utilized secondary data from the Reserve Bank of India, yearly bank reports, publications on Indian banking developments and trends, statistics tables pertaining to banks, RBI bulletins, journals, academic papers, the Center for Monitoring Indian Economy (CMIE), and Moneycontrol.

Analysis of Study

Examination and Assessment of the Investigation Ratios and percentages are essential for statistical analysis and presentation. The hypothesis is evaluated utilizing the t-test, standard deviation, and mean. Ratios and percentages are employed to evaluate and convey information. The hypothesis is evaluated utilizing a bank data sample, calculating the t-test, standard deviation, and mean statistic. The bank exhibited strong success both prior to and following the mergers.

METHODOLOGY

This research investigates the efficacy of mergers within the Indian financial sector. The objective of this inquiry is to examine the methodologies employed in the current investigation. This study assesses the profitability and efficiency of integrated enterprises. A comprehensive summary of the facts in the scenarios supports the outlined process.

To encapsulate profitability, state:

- Gross Profit Margin=Gross Profit/Sales×100
- Net Profit Margin=Net Profit/Sales×100
- Operating Profit Margin=Operating Profit/Sales×100
- Return on Capital Employed(ROCE)=Net Profit/TotalAssets×100
- Return on Equity(ROE)=Net Profit/Equity Shareholder's Funds×100
- Debt Equity Ratio=Total Debt/Shareholder Equity

- $\text{Return on Network} = \frac{\text{Profit after Tax}}{\text{Network}}$
- $\text{Interest Coverage Ratio} = \frac{\text{Profit before Interest and Taxes}}{\text{Total Interest Expenses}}$
- $\text{Earnings Per Share} = \frac{\text{Profit After Tax} - \text{Preference Dividend}}{\text{Number of Equity Shares}}$

The financial analysis presents the ratios and the year the bank merged with another financial organization.

IV- DATA ANALYSIS AND INTERPRETATION

Table1: T-tests of Profitability Ratios of Kotak Mahindra Bank Before and After Merger

Ratios	Group	N	Mean-Average Ratio	Std.Deviation	t-value	P-value
GPM	Before	5	89.647	1.231	-0.694	.489ns
	After	5	99.155	4.434		
NPM	Before	5	9.604	1.995	-3.063	.003**
	After	5	14.985	1.915		
OPM	Before	5	52.806	3.71	-2.232	.031*
	After	5	73.649	14.985		
ROCE	Before	5	1.004	0.102	-4.118	.002**
	After	5	1.148	0.138		
D/E Ratio	Before	5	5.154	2.124	0.328	.585ns
	After	5	6.123	0.046		

The data is sourced from CMIE Prowess Data, moneycontrol.com, and company annual reports.

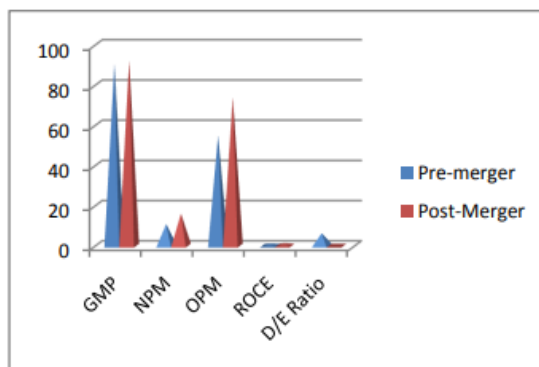


Figure 1: Mean of GPM, NPM, OPM, ROCE and D-E Ratio of Kotak Mahindra Bank Before and After Merger

A. Testing the significance difference between before and after merger of GPM of Kotak Mahindra Bank.

Null Hypothesis (H0) posits that Kotak Mahindra Bank's Operating Profit Margin (OPM) remains constant post-merger.

Alternative hypothesis (H1) states that Kotak Mahindra Bank exhibited major disparities prior to and subsequent to the OPM acquisition.

Table 1 indicates that Kotak Mahindra Bank recorded an average Operating Profit Margin (OPM) of 52.806 prior to the merger and 73.649 subsequent to it. The merger resulted in a 20.843% increase in the operational profit margin (OPM). Prior to and subsequent to the merger, Kotak Mahindra Bank's operational profit margin exhibited standard deviations of 3.710 and 14.985, respectively. The statistical study of Kotak Mahindra Bank's OPM corroborates the null hypothesis. The t-ratio is 2.232 and the P-value is 0.031, both exceeding the 5% significance threshold. The operating profit margin ratio remained steady both prior to and during the merger of Kotak Mahindra Bank.

B. Testing the significance difference between before and after merger of NPM of Kotak Mahindra Bank.

Null hypothesis (H0) posits that Kotak Mahindra Bank's ROCE exhibited large variances before to and subsequent to the merger.

The statistical differences between the periods preceding and succeeding the NPM merger of Kotak Mahindra Bank are notable. A competing hypothesis.

Table 1 indicates that Kotak Mahindra Bank recorded an average Net Profit Margin (NPM) of 9.604 prior to the merger and 14.985 subsequent to it. The average ratio indicates a 5.381% rise in NPM following the merger.

The standard deviations of NPM at Kotak Mahindra Bank prior to and subsequent to the merger are 1.995 and 1.915, respectively. The T-ratio of -3.063 surpasses the 5% significance level, and the null hypothesis P-value for Kotak Mahindra Bank is 0.003. Consequently, the null hypothesis is affirmed. Upon comparing the periods preceding and after the merger of Kotak Mahindra Bank, it can be stated that there is no significant variation in the Net Profit Margin ratio.

C. Testing the significance difference between before and after merger of OPM of Kotak Mahindra Bank.

According to the null hypothesis (H_0), there is no statistically significant change between the periods preceding and succeeding the merger of Kotak Mahindra Bank's OPM.

A statistically significant difference exists between the periods preceding and succeeding the merger of OPM and Kotak Mahindra Bank, as indicated by the alternative hypothesis outlined in the initial hypothesis.

Table 1 demonstrates that the mean values of the OPM for Kotak Mahindra Bank were 52.806 prior to the merger and 73.649 subsequent to its completion. As a result of the merger, the OPM rose by 20.843%. Before the merger, the OPM of Kotak Mahindra Bank exhibited a standard deviation of 3.710, which subsequently increased to 14.985 post-merger. The OPM of Kotak Mahindra Bank has a t-ratio of 2.232 and a P value of 0.031, which above the 5% significance threshold required for significance. Consequently, we ascertain that the null hypothesis (H_0) is erroneous. The Operating Profit Margin ratio exhibited no significant variation before and after the merger between Kotak Mahindra Bank and other financial organizations.

D. Testing the significance difference between before and after merger ROCE of Kotak Mahindra Bank

H_0 Prior to and subsequent to the merger, the ROCE ratio of Kotak Mahindra Bank exhibited no substantial variation, in accordance with the null hypothesis (H_0), which posits that there exists no statistically significant difference between the two periods.

The return on capital employed (ROCE) of Kotak Mahindra Bank exhibits a statistically significant disparity between the periods preceding and succeeding the merger, as articulated in the alternative hypothesis (H_1).

Table 1 indicates that the mean return on capital employed (ROCE) for Kotak Mahindra Bank is 1.004 prior to the merger and 1.148 subsequent to the merger. The Mean Ratio percentage gain in ROCE has been quantified at 0.164% following the merger. Before and after the merger of ROCE, the standard deviation figures for Kotak Mahindra Bank were 0.102 and 0.102, respectively.

The corresponding value is 0.138. The return on capital employed (ROCE) of Kotak Mahindra Bank has a P value of 0.002 and a t-ratio of -4.118, indicating that it exceeds the 5% level of significance. The null hypothesis, referred to as the H_0 hypothesis, is the one we elect to accept. This hypothesis posits that there is no substantial variation in the Return on Capital Employed ratio between the periods preceding and succeeding the merger of Kotak Mahindra Bank.

E. Testing the significance difference between before and after merger of D/E Ratio of Kotak Mahindra Bank.

According to the Null Hypothesis articulated previously, there is no statistically significant difference in the D/E Ratio of Kotak Mahindra Bank pre- and post-merger.

The D/E Ratio of Kotak Mahindra Bank exhibits a statistically significant disparity between the pre-merger and post-merger periods, as posited by the alternative hypothesis in the initial hypothesis.

Subsequent to the merger, all banks, save one, saw a notable enhancement in their financial condition due to increased profitability, as assessed by six financial performance metrics. This applied to all the banks. The merger has impacted the Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), Return on Capital Employed (ROCE), and Debt-to-Equity (D/E) Ratio of the banks. The current state and status of the banks are substantiated by these six financial performance ratios. The T-test is essential for comparing the mean ratios of two distinct time periods, specifically before and after the bank merger, to ascertain the presence of statistically significant differences. The P value and the t-test value are employed to determine the probability of a specific occurrence occurring in the future. During this test, the generated values are typically assessed at the 1% (0.01) and 5% (0.05) significance levels to determine the extent of deviation from the mean in a normal distribution.

Upon studying the data displayed in the preceding tables and graphs, the subsequent findings concerning the

financial performance of the banks have been discerned.

- Subsequent to the consolidation of all banks, excluding one, the average gross profit margin
- (GPM) and operational profit margin (OPM) ratios have experienced substantial increases. This applies to all banks.
- The financial performance of the banks, as indicated by the Net Profit Margin (NPM) and Return on Capital Employed (ROCE), was more advantageous before the merger than subsequent to it. The bank's growth in Gross Profit Margin (GPM) and Net Profit Margin (NPM) has established a robust foundation for improved profitability, efficiency, and liquidity following the merger.
- Ultimately, it is indisputable that the financial performance of the institutions varied significantly before and throughout the merger.

V - SUGGESTIONS

The study's findings indicate that acquiring banks have derived substantial benefits from merger and acquisition transactions. In analyzing the subgroup of banks from 2007 to 2017, the characteristics of the rating system, financial performance ratios, and analysis of variance (ANOVA) of the CAMEL model are employed. This study aims to analyze and compare performance prior to and during mergers and acquisitions to ascertain the degree of their impact. A significant disparity has been identified within a select set of banks, indicating that mergers and acquisitions are influencing the performance of this specific category of financial institutions. The correlation coefficients, paired t-test, p-value, and F-value, along with further findings, suggest that there were minimal correlations between the pre- and post-financial performance of the people. No significant connections were observed among any of the correlation pairings. The outcomes of profitability exhibited both positive and negative associations, indicating inconsistency in the results. This demonstrated a robust correlation with all metrics assessing profitability. Additionally, a correlation was identified among the Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), Return on Capital Employed (ROCE), and Debt/Equity Ratio (D/E).

REFERENCES

- [1] Ashutosh, Dash (2005), "The Post-Merger Performance Puzzle: An Evaluation of Long-Term Profitability of Indian Firms", *The ICFAI Journal of Accounting Research*, January 2015, pp. no. 6–22.
- [2] Atma, Prasantha (1996), "Performance of Public Sector Commercial Banks – A Case Study of State Bank of Hyderabad", PhD Thesis, Osmania University, Hyderabad, pp. no. 1–308.
- [3] Bhatnagar Baxi Abhinav & Sinha Nitu (2012), "Strategic Move of ICICI Bank: A Case of ICICI Bank & Bank of Rajasthan", *International Journal of Multidisciplinary Research*, Vol. II, No. V, pp. no. 9–15.
- [4] Chanda, Kumar Dalip (2005), "Bank Mergers in India: A Critical Analysis", *IASSI Quarterly*, Vol. XXIII, No. IV, pp. no. 107–123.
- [5] Cornett, Marcia Millon, and Tehranian, Hassan (1992), "Changes in Corporate Performance Associated with Bank Acquisition", *Journal of Financial Economics*, Vol. XXXI, pp. no. 211–234.
- [6] Khan, Azeem Ahmad (2011), "Merger and Acquisitions (M&As) in the Indian Banking Sector in Post Liberalization Regime", *International Journal of Contemporary Business Studies*, Vol. II, No. XI, November, pp. no. 31–45.
- [7] Kumar, Ashwani and Kishore, Deep (2003), "An Assessment of Banking Sector Reforms in India", *Indian Journal of Public Enterprise*, June, pp. no. 87–101.
- [8] Monika (2014), "Mergers and Acquisitions in Indian Banking Sector – A Comparative Study on Pre-Post-Merger", *International Journal of Economic and Management Strategy*, Vol. IV, No. I, pp. no. 1–14.
- [9] Mohan, K. (2006), "Mergers and Acquisitions for Consolidation in Indian Banking Industry: The Success Mantra", *Management Trends*, October–March, Vol. III, No. I, pp. no. 30–40.
- [10] Mantravadi, Pramod and Reddy A. Vidhyadhar (2007), "Mergers and Operating Performance: Indian Experience", *The ICFAI Journal of Mergers and Acquisitions*, Vol. IV, No. IV, pp. no. 52–66.