# Mergers and Acquisition in Banking Sector in India: An Analysis of Pre & Post Merger Performance of Kotak Mahindra Bank

D. Ambica
Research Scholar, Department of Business Management, Osmania University, Hyderabad, India

***Abstract:*** The Indian banking sector improves to introduce by the Indian Government during the early 1991s and the key financial performance parameters in the era of globalisation and post -liberalisation of the world economy, Indian banking sector has begun to reform itself. It is in experiencing to changed known as 'consolidation' of Indian banking system. In this paper analyses the financial performance of banking sector pre and post -merger their activities consolidated by the stronger financial institutions. This paper analysis the Impact of M& A's on profitability of consolidation in the Indian Banking sector. The current paper examined the performance, strengthens and weakness of the Kotak Mahindra bank. Based on the financial ratios from the perspective of pre and post – merger grounds. The collection of data covers financial performance of selected banks for five years of pre and post merger period. The statistical tools are arithmetic mean, standard deviation; t-test and p-value etc. to use gauge the various financial ratios before and after merger analysis. Ratios of studies are used to compare pre and post -merger financial performance evaluation of consolidation banks, test analysis. Positioned on the analysis of the Bank concluded that Net Profit Margin, Operating Profit Margin, Return on Capital Employed, Return on Net Worth, Interest Coverage, Deposit per Employee and Credit Deposit Ratio there is significant difference but GPM-(Gross Profit Margin), NPM- (Net Profit Margin), OPM- (Operating Profit Margin) , ROCE-(Return on Capital Employed), D/E Ratio-Debit/Equity Ratio.) The study concluded that the banks have been positive effects when distinguished between pre – mergers and post- merger period.

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

## I. INTRODUCTION

The rise of the competition, the financial liberalization allowing capital flows and the rapid technological changes are the basis of the globalization process extensively favoring the influence, presence, and participation of foreign-owned firms in national economies. This also triggers a lot of corporate restructuring activities of domestic firms. The process has caused a significant reshuffling and redeployment of a firm's assets and thereby reshaping of many industrial sectors. The present form of industrial ownership is witnessing strong mergers and acquisitions (M&A) activities around the globe. The phenomenon has tended to facilitate reconfiguration of a firm's organizational structure and its core competencies.

Most of the M&A deals are motivated, by the desire to obtain financial synergies, to gain market power, to obtain access to distribution channel or to gain entry into new geographical locality, thereby admitting that technological reasons do not motivate all M&A. However, in the current globalized scenario, there are certain high-tech industries where innovation is a key to competitive edge. Such firms will consider the impact of M&A on technological performance even when the deal is not innovation-driven, and choose the most appropriate innovation and financial strategy. Technological Knowhow is becoming a key to success in the present market and factors such as firm size, history and equity become a less and less critical requirement *(Gantumur and Stephan, 2007)*.

The shift in industrial policy in 1991 paved the way for the first wave of M&A in India. Policy reforms facilitating M&A begins with the removal of restrictive provisions of Monopolies and Restrictive Trade Practices (MRTP) Act followed by reforms in Foreign Exchange Regulation Act FERA) in 1993 and Foreign Exchange Management Act (FEMA) in 2000. But at the same time in order to abolish forces which reduce competition, the Competition Policy Act 2002 decided to establish a Competition Commission of India (CCI). This commission aimed at checking the anti-competitive activities such as the formation of cartels, collusive bidding, and consolidation via M&A which could cause market dominance abuses.

The economic reforms in India have significantly reduced firm level rigidities. Corporate restructuring in recent years is a response to the opportunity provided by the policy in order to meet the emerging competitive challenges. The firms, in the process, are reportedly trying to retain competitiveness and increase their value. The rapid growth of the Indian economy has encouraged domestic enterprises to undertake more aggressive investment activities which have resulted in the tremendous growth of M&A in the last decade. Domestic firms have taken steps to consolidate their position to face increasing competitive pressures and multinational enterprises (MNEs) from India have taken this opportunity to increase their presence and control in foreign markets *(Basant, 2000)*.

### Mergers and Acquisitions

Mergers and acquisitions activity can be defined as a type of restructuring in that they result in some entity reorganization with the aim to provide growth or positive value. The abbreviation of merger is as: M= Mixing, E= Entities, R= Resources for, G=Growth, E =Enrichment and R= Renovation From a legal point of view, a **Merger** is a legal consolidation of two companies into one entity, whereas an **Acquisition** occurs when one company takes over another and completely establishes itself as the new owner (in which case the target company still exists as an independent legal entity controlled by the acquirer). Mergers and Acquisition play a crucial economic role in moving resources from zones of under-utilization to zones of better utilization. Poorly run companies are more prone to being taken over by the powerful and managers have an incentive to ensure that their company is governed properly and resources are used to produce maximum value.

## II. REVIEW OF LITERATURE

The present paper deals with the review of existing literature available on the research work. Various studies have been conducted by researchers on the different aspects of Merger and Acquisition of banks. There is imperative need to perform financial growth, strength, size, profitability and safety. The present study intends to make a reasonable effort to fill this research gap.

Vashisht (1987) evaluated the performance of public sector banks with regard to 6 variables, viz. branch expansion, credit, deposit, credit, priority sector advances, DRI advances, and net profit over the period 1971-1983. The researcher has used composite weighted growth index to rank the banks as excellent, good, fair and poor. In order to improve the performance, he has suggested that developing marketing strategies for deposit mobilization, SWOT analysis and profit planning.

Tehranian and Cornett (1992) analyzed the post-merger performance of large bank merger during period of 1982 and 1987. The results of their study indicate good performance for merged banks due to the improvements in ability in attracting loans and deposits, in employee contribution towards productivity and in profitable asset management. Further, the study finds a significant correlation between announcements period abnormal return and the various financial performance measures indicate that the market participants were able to identify in advance the improved financial performance associated with bank merger.

Mantravadi and Reddy (2007) stated in their paper the impact of mergers on the operating and productivity performance of acquiring public limited companies in India by examining some pre and post – merger financial ratios during the period 1992-2003. It was stated that the mergers between the same groups of companies, there has been reduction in performance and ROI (Return on Investment), implying that such mergers were only motivated by a potential for increasing the assets base through consolidation of different businesses rather than driving efficiency improvements.

Soni and Jain(2013) depicts the compares pre and post-merger of banks with use of financial ratios Gross Profit Margin, Net Profit Margin, Operating Profit Margin, Return on Capital Employed, Return on Equity and Debt Equity Ratio. This study shows the changes represent in the acquired firms based on financial parameters. The tools used t-test for testing the statistical significance and effect of Merger and Acquisitions on the performance of banks. To be concluded that the banks have been positively affected by the event of Merger and Acquisition.

### Need Of The Study

The need of the study to compare pre – and – post merger performance of the selected banks after the 2000 and collected the data and information which is collecting from RBI i.e. Report on trends & progress of bulletin banking India and company annual reports from select bank under study. In the earlier consolidation of banks impact on productivity & profitability to evaluate their performance in the pre and post mergers under the regime LPG era and banking sector reforms. It has affected the efficiency, productivity, & profitability of the banks to a large extent. The impact of mergers change in profitability i.e. ROCE (Return on Capital Employed), RONW (Return on Net Worth), PM (Profit Margin) & other financial ratio is compared using the performance of pre-merger & post-mergers for the need of the study to analyze the consolidation of banks.

### Scope of The Study

The study will cover the entire Indian banking sector. While consolidation via merger route is one option, scaling up operations through branch expansion, size and growth becomes all important financial ratios. The sphere of analysis is to be involved the merger banks after 2002 to 2014.

### Objectives of The Study

1. Overview of Indian banking system.
2. To study the impact on the Profitability of the Sample Bank in India.
3. To examine the strength and weakness of the merged banks in India and find out the Improvements faced by the beneficiaries.

### Hypothesis

Mergers and Acquisition improves the financial performance of the banks and hypothesis formulated for the study:

**$H_0$**= There is no significance difference between the pre-merger and post- merger performance of Kotak Mahindra Bank.

**$H_1$**= There is significance difference between the pre-merger and post- merger performance of Kotak Mahindra Bank.

## III. RESEARCH DESIGN

### Sample, Data Sources and Period of the Study

The current study choose one Bank to assess the impact of mergers and acquisitions on the financial performance of Kotak mahindra bank . The financial performance data has been collected from annual reports of the bank. The study is collected from secondary data from the Reserve Bank of India, Annual Reports of Banks, Report on trends and progress of bulletin banking in India, Statistical tables relating to banks, RBI Bulletin, Journal, Articles, Centre for Monitoring Indian Economy (CMIE) and Money Control etc. for the study.

### Analysis Of Study

The statistical tools and techniques such as ratios and percentages are used for the analysis of data are used for the presentation of the data. To test the hypothesis, t-test, standard deviation, and mean is evaluated in the data of sample banks. The performance of the bank before and after the mergers has been compared.

## IV. METHODOLOGY

The present study is an attempt to examine the performance of mergers of banking sector in India. The research is an attempt to evaluate the methodology used for the present study. The present study is an attempt to examine the performance in terms of productivity and profitability of merged entities. The methodology is based on the entire research work found in the different scenario.

The profitability, are listed as follows:

1. Gross Profit Margin = Gross Profit/Sales × 100
2. Net Profit Margin = Net Profit/Sales × 100
3. Operating Profit Margin = Operating Profit/Sales × 100
4. Return on Capital Employed (ROCE) =Net Profit/Total Assets × 100

5. Return on Equity (ROE) =Net Profit/Equity Share Holder's Funds × 100
6. Debt Equity Ratio = Total Debt/ Share Holder Equity
7. Return on Net Worth = Profit after Tax/Net Worth
8. Interest Coverage Ratio = Profit before Interest and Taxes/Total Interest Expenses
9. Earnings Per Share = Profit After Tax-Preference Dividend/Number of Equity Shares

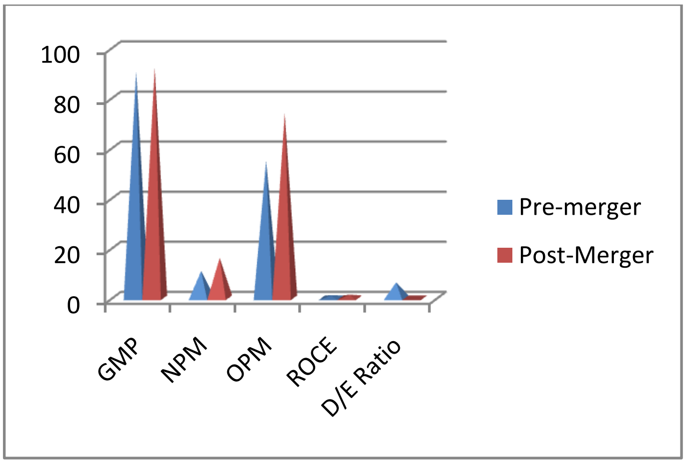
The financial analyses of the data, above ratios are found with including the year of merger in selected bank.

## V. DATA ANALYSIS AND INTERPRETATION

Table 1: 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 | | |

*Source: annual reports of companies and other econdary source - CMIE Prowess Data, and moneycontrol.com.*




*Source: Annual Report of select Banks.*

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.***

$H_0$ (Null Hypothesis) = There is no significance difference between before and after merger GPM of Kotak Mahindra Bank.

$H_1$ (Alternative Hypothesis) = There is significance difference between before and after merger GPM of Kotak Mahindra Bank.

**Table 1** shows that mean values before and after merger of GPM of Kotak Mahindra Bank are 89.647 and 79.155 respectively. The average growth observed in the GPM of the bank increased by 10.492 percent after the merger. The SD values of GPM of Kotak Mahindra Bank are 1.231 and 4.434 before and after merger respectively. To assess whether there is significance difference in the GPM before and after merger, paired t-test is applied. As noted in the table, the p-value of GPM of Kotak Mahindra Bank is 0.489 with t-test ratio at -0.689 which is greater than 5 percent (.05) level of significance, hence we accept null (Ho) hypothesis. The conclusion is that there is no significance difference in Gross Profit Margin ratio before and after merger of Kotak Mahindra Bank.

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

$H_0$ (Null Hypothesis) = There is no significance difference between before and after merger of NPM of Kotak Mahindra Bank.

$H_1$ (Alternative Hypothesis) = There is significance difference between before and after merger of NPM of Kotak Mahindra Bank.

**Table 1** shows that mean values of NPM (Net Profit Margin) of Kotak Mahindra Bank are 9.604 and 14.985 before and after merger respectively. The mean ratio percentage increase in NPM is recorded at 5.381% after the merger. The SDs of NPM of Kotak Mahindra Bank are 1.995 and 1.915 respectively before and after merger. P-value of NPM of Kotak Mahindra Bank is 0.003 with t-ratio at -3.063 which is greater than 5 percent (.05) level of significance, hence we accept null hypothesis. We summarize that there is no significance difference in Net Profit Margin ratio before and after merger of Kotak Mahindra Bank

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

$H_0$ (Null Hypothesis) = There is no significance difference between before and after merger of OPM of Kotak Mahindra Bank.

$H_1$ (Alternative Hypothesis) = There is significance difference between before and after merger of OPM of Kotak Mahindra Bank

**Table 1** shows that mean values before and after merger of OPM of Kotak Mahindra Bank are 52.806 and 73.649 respectively. There is increase in OPM recorded at 20.843% after the merger. The SDs of OPM of Kotak Mahindra Bank stand at 3.710 and 14.985 before and after merger respectively. P value of OPM of Kotak Mahindra Bank is 0.031 with t-ratio – 2.232 which is greater than 5 percent level of significance, hence we accept null (Ho) hypothesis. We can state that there is no significance difference in Operating Profit Margin ratio before and after merger of Kotak Mahindra Bank.

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

$H_0$ (Null Hypothesis) = There is no significance difference between before and after merger of ROCE ratio of Kotak Mahindra Bank.

$H_1$ (Alternative Hypothesis) = There is significance difference between before and after merger of ROCE of Kotak Mahindra Bank.

**Table 1** shows that mean values before and after merger of ROCE of Kotak Mahindra Bank are 1.004 and 1.148 respectively. The Mean Ratio percentage increase in ROCE is recorded at .164% after the merger. The SD values before and after merger of ROCE of Kotak Mahindra Bank are 0.102 and 0.138 respectively. P value of ROCE of Kotak Mahindra Bank is .002 with t-ratio at -4.118 which is greater than 5 percent level of significance. We accept null (Ho) hypothesis stating that there is no significance difference in Return on Capital Employed ratio before and after merger of Kotak Mahindra Bank.

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

$H_0$ (Null Hypothesis) = There is no significance difference between before and after merger D/E Ratio of Kotak Mahindra Bank

$H_1$ (Alternative Hypothesis) = There is significance difference between before and after merger D/E Ratio of Kotak Mahindra Bank

**Table 1** shows that mean values before and after merger of D/E Ratio of Kotak Mahindra Bank are 5.154 and 6.123 respectively. The mean ratio percentage increase in D/E Ratio is recorded at .0989% after the merger. The SDs before and after merger of D/E Ratio of Kotak Mahindra Bank are 2.214 and .046 respectively. P value of D/E Ratio of Kotak Mahindra Bank is 0.585 with t-ratio at 0.328 which is more than 5 percent level of significance. Hence we accept null (Ho) hypothesis and conclude that there is no significance difference in Debit-Equity ratio before and after merger of Kotak Mahindra Bank.

From the selected six financial performance indicators, post merger the banks were in a good position in the form of increased profitability of the banks except one bank. This indicates that the GPM, NPM, OPM, ROCE, and D/E Ratio of the banks were affected during both before-merger and after-merger period. These six financial performance ratios of the banks seemed to explain the bank's preset position and status. T-test is employed to test for significant changes in the mean ratios to compare two time periods which is before and after merger of banks. P value gives the probability of future occurrence and is of importance along with t test value. This test normally compares the calculated values at 1% (0.1) and 5 % (0.5) level of significance, which gives the deviations from the mean value in a normal distribution.

From the above tables and graphs, the following findings about the financial performance of the banks are observed.

1. There is a mean increase in GPM (Gross Profit Margin) and OPM (Operational Profit Margin) Ratio after the merger of banks excluding one.
2. NPM and ROCE were less before merger of banks in comparison to after merger performance, which is definitely a positive sign in the financial performance of the banks. To conclude overall growth in GPM and NPM of the banks is laying a strong foundation in such a way that liquidity, efficiency and profitability of the bank have increased post merger.
3. In the end, we can ascertain that there is a considerable difference in financial performance of the banks with respect to before and after merger period.

## SUGGESTIONS

The findings from the study pertaining to the select banks reveal that acquirer banks have benefited positively from the merger and acquisition activity. During the period of 2007-2017, the select banks are compared using parameters of CAMEL model for rating system, financial performance ratios and ANOVA to understand the impact of mergers and acquisitions by evaluating and comparing the premerger performance to post merger performance. Significance difference has been noted in the select banks proving the fact that mergers and acquisitions are having impact on the performance of banks. The findings show that correlation, paired t-test, p-value, F-value, etc. between pre and post-financial performance did not have much to observe since insignificant correlations were found for all the correlation pairs. The mean performance of positive and negative relationship was found between profitability. This relationship was unique for all profitability measures. The correlation was found for others (GPM-(Gross Profit Margin), NPM- (Net Profit Margin), OPM- (Operating Profit Margin), ROCE-(Return on Capital Employed), D/E Ratio-Debit/Equity Ratio.).

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