# Mergers and Acquisitions in Indian Banking Sector: Pre-Post Analysis of Performance Parameters

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Abstract Economic liberalisation in the early nineties has helped Indian financial institutions for comprehensive growth. Banking sector in India has been one of the top performers in the markets. Banks opted for mergers and acquisitions (M&A) as tactical means of corporate restructuring. The objective of this study is to explore the overall strategic impact of M&A in this sector. In this paper, we have concentrated on 10 M&A deals in the Indian banking sector during a timeframe spanning from 2000 to 2010. The focus of our study is to measure the change in performance levels of the banks, if any, in the post merger phase as compared to the pre merger ones through selected HR and financial parameters. The findings indicate a non-significant change in performance in the post merger period.

**Keywords:** Banking Sector, HR and Financial Parameters, Mergers and Acquisitions (M&A), t testWilcoxon test.

#### I. Introduction

Corporate restructuring is vital for survival of business firms in this present competitive environment. In the present times, mergers and acquisitions (M&A) has emerged as one of the best processes of corporate restructuring. M&A decisions are critical to the success of corporations as they are instrumental in achieving greater efficiency by exploiting synergies and growth opportunities.

Across the globe, the service sector has been playing a dominant role in the growth of economies. The service sector in India is highly dynamic and has grown to a considerable size, contributing to 60% of the gross domestic product (GDP) and grew 5% in the FY13. Banking sector in India has been one of the top performers in the markets. India's Rs 77 trillion (US\$ 1.30 trillion) banking industry is well at par with global standards and norms. Indian banks being the forefront in the financial institutions of the nation have gone for M&A as a strategic tool to augment their performances.

Liberalisation, Privatisation and Globalisation (LPG) have become dominant forces shaping economies the world over. India adopted policy reforms in the area of LPG in the early nineties through which our financial institutions have witnessed multifaceted growth. Post liberalization, M&As have been a predominant phenomenon in the Indian banking sector. The report by the Institute of Mergers, Acquisitions and Alliances (IMAA) has provided evidence about the number of M&As in India in the banking sector over a period of twenty-eight years, ranging from 1985 to the first quarter of 2013. The report undoubtedly shows that the phenomenon of M&A has experienced several highs and lows over the years, reporting a noticeable hike in the year 1995 with the transaction value around US\$ 500 billion. Some of the major mergers/acquisitions in the banking sectors since January 1990 were that of Bank of Tamil Nadu Ltd. with Indian Overseas Bank, Bank of Punjab Ltd with Centurian Bank, IDBI Bank Ltd with IDBI Ltd., State Bank of Indore with State Bank of India.

In this paper, we have concentrated on 10 M&A deals in the Indian banking sector during a timeframe spanning from 2000 to 2010. The focus of our study is to measure the change in performance parameters of the banks, if any, in the post merger phase as compared to the pre merger ones.

#### **II.** Survey Of Literature

Banking is one of the most scrutinized sectors as far as academic interest in M&As are concerned. There are innumerable studies focussing on the impact of such a phenomenon on the financial parameters like PAT, ROI, debt equity ratios, EPS and stock prices. Previous research has shown that M&As in the banks have produced mixed results with regard to overall performance.

Mehta and Ram Kumar (2006) tried to analyze the motives for M&As in the Indian banking sector. It was stated that although there were multiple reasons for M&As the main motive was to create few larger banks. The detailed analysis by Revathy (2011) highlighted the key issues surrounding M&As in the Indian banking sector and explained the motives behind some M&As that have occurred in India post- 2000, analyzed the benefits and costs to both parties involved and the consequences for the merged entity. It was concluded that mergers between strong banks made greater economic and commercial sense. Kuriakose and Kumar (2010) assessed the strategic and financial similarities of merged banks and found that only private sector banks were in favour of the voluntary merger wave in the Indian Banking Sector and public sector banks were reluctant toward

DOI: 10.9790/487X-17320109 www.iosrjournals.org 1 | Page

this type of restructuring. Dutta and Dawn (2012) attempted to study M&As in Indian banking industry post liberalization and critically examined the reasons for those mergers and analyzed whether those mergers attained success or not. They focused on the major factors involved for being successful on M&As operations in banking industry in India. Barth (2012) focused on entry barrier, bank regulatory, macro-governance, and macro-economic country-specific variables in explaining bank mergers and acquisitions. It was found that there was a significant relation between the degree of M&A activity and the treatment of foreign banks, but no significant relation with bank restrictions. The results also pointed out that the determining factors of M&A activity differ between domestic and cross-border transactions.

One of the primary motives behind any strategic corporate decision is to maximise shareholder value. Al-Sharkas et. al. (2010) focused on abnormal returns for the bidder, target and combined firms in bank mergers. The outcomes revealed that overall announcements of bank mergers generated positive wealth effects for the combined shareholders. Ravichandran, Nor & Said (2010) tried to evaluate the efficiency and performance for selected Indian public and private banks before and after the merger and arrived at the judgement that the returns on shareholders' funds was negatively related to cost efficiency and interest cover but was positively related to ratio of advances to total assets. Kuriakose Sony et al., (2009) focused on the valuation practices and adequacy of swap ratio fixed in voluntary amalgamation in the Indian Banking Sector and concluded that in most of the cases the final swap ratio was not justified to their financials. Anand & Singh (2008) studied the effects of specific mergers in the Indian Banking Sector on the shareholders' wealth. Results indicated that merger announcements had been positive and significant for both bidder & target banks. Kumar and Suhas (2010) also opined that mergers created value for the acquirer banks but eroded shareholder wealth for target banks in India. Anand and Singh (2008) studied the impact of merger announcements of five banks in the Indian Banking Sector and came to the conclusion that the announcement of merger of bank had positive and significant impact on share holder's wealth. Beitel et. al. (2004) studied M&As of European bidding banks from 1985to 2000 and found that that less active bidders created more value than more active/experienced bidders. Shobhana and Deepa (2012) attempted to determine the shareholder value addition consequent to merger announcements with respect to the six selected Indian bank mergers during the post-liberalization period. The results of the study indicated that there was a decline in the shareholder wealth when the securities of the select banks were more prone to market risk while there was an increase in the shareholder wealth when market risks of the select public and private sector banks were the same as that of the benchmark portfolio. Jayadev and Sensarma (2007) analyzed some critical issues of consolidation in Indian banking with particular emphasis on the views of two important stake-holders viz. shareholders and managers. The result revealed that in the case of forced mergers, neither the bidder nor the target banks' shareholders benefited. But in the case of voluntary mergers, the bidder banks' shareholders have gained more than those of the target banks. In spite of absence of any gains to shareholders of bidder banks, a survey of bank managers strongly favored mergers and identified the critical issues in a successful merger as the valuation of loan portfolio, integration of IT platforms, and issues of human resource management.

Olalekan et. al. (2012) were of the opinion that M&As had improved the overall performance of banks and contributed immensely to their growth. Some other researchers were also in the views that post M&A performance of banks was financially efficient (Okpanachi Joshua (2011), Cabral et al. (2002); Carletti et al. (2002), Szapary (2001); De-Nicolo (2003)). Olson and. Pagano (2005) studied the mergers of US publicly traded bank holding companies during 1987–2000 and found that the acquiring firm's sustainable growth rate was an important determinant of the cross-sectional variation in the merged entity's long-term operating and stock performance.

Walter and Uche (2005); Uchendu (2005); Kama (2007) and Kwan (2002) enlightened us on the post M&A performances of banks in different countries of the world. Post M&A performance in Nigerian banks was better; in Malaysian banks it was efficient whereas in the banks of Chile the productivity was better. However the post M&A performance in US banks was negative. (DeLong and Deyoung (2007); Amel et al. (2004)). Koetter (2008) conducted a research on German bank mergers on the basis of cost and profit efficiency (CE and PE) to assess the post-merger performance up to 11 years. He found that the margin of success in terms of CE was narrow whereas PE performance was slightly larger. Su Wu (2008) examined the efficiency consequences of bank M&As with particular reference to preventing mergers among the four major banks in Australia over the period from 1983 to 2001. The empirical results demonstrated that for the time being mergers among the four major banks may result in much poorer efficiency performance in the merging banks and the banking sector. Tetsuya (2005) investigated whether the news of several Japanese bank mergers affected the market value of financially distressed borrowers and found that there was a positive wealth effect on financially distressed borrowers. Karceski et. al. (2005) estimated the impact of bank merger announcements on borrowers' stock prices for publicly traded Norwegian firms. They came to the conclusion that borrowers of target banks lose in equity value while borrowers of acquiring banks earn positive abnormal returns.

Cross-border acquisitions were not beneficial for acquiring banks as inferred by the studies conducted by Sousssa and Wheeler (2006) and Pilloff and Santomero (1997). Amihud et. al. (2002) inspected the effects of cross-border bank mergers on the risk and (abnormal) returns of acquiring banks. They found that the acquirers' risk neither increased nor decreased but the abnormal returns to acquirers were negative and significant and higher when risk increased relative to banks in the acquirer's home country.

Khan (2011) compared pre and post merger financial performance of merged Indian banks with the help of financial parameters like gross profit margin, net profit margin, operating profit margin, return on capital employed (ROCE), return on equity (ROE) and debt equity ratio and also the overall impact of merger and acquisitions on acquiring banks. Results indicated that banks had been positively affected by the event of M&A. The thesis by Prasad (2011) has enlightened us on various dimensions of M&As in the Indian commercial banking sector. Firstly he evaluated the impact of merger on financial performance of merging commercial banks in India by analyzing accounting based information and concluded that the results were mixed. Secondly he examined the post-merger efficiencies of the select commercial banks and indicated that the average technical and scale efficiencies (TE and SE) of the acquiring banks improved post merger. However no improvement in average cost efficiency post-merger was observed and it was noted that there was significant improvement in the average profit efficiency and the average productivity of the acquiring banks post-merger. It was pointed out that the public sector banks were less efficient than the new generation private sector banks. This study also analyzed whether there was any significant association between select demographic and behavioral variables and customer perception of banking service quality in the face of commercial bank mergers in India and identified that brand equity, customer relationship management (CRM) and innovative ability as the major factors influencing the customer perception of service quality of commercial banks in India in the face of mergers. Saboo & Gopi (2009) studied the impact of M&As on the operating performance of acquiring firms by examining some pre-merger and post-merger financial ratios and also the differences among the firms that had gone for domestic and international acquisitions. The results suggested that mergers had a positive effect on key financial ratios of firms acquiring domestic firms while a slightly negative impact on the firms acquiring crossborder firms. The paper by Kouser and Saba (2011) provided insight on the impacts of M&A in 10 commercial banks from the Karachi Stock Exchange (KSE). The results recommended that operating financial performance of all commercial had declined. Ravichandran and Alkhathlan (2010) analysed the efficiency and performance of selected banks in India & Saudi Arabia in the post merger phase by using CRAMEL-type variable. The results suggested that the mergers did not enhance the productive efficiency of the banks. Cornett et. al. (2006) examined operating performance of commercial bank mergers and came up with multifarious findings. They indicated that industry-adjusted operating performance of merged banks increased significantly after the merger and large bank mergers produced greater performance gains than small bank mergers. They also concluded that improved performance was the result of both revenue enhancements and cost reduction activities. Said et. al. (2008) analysed the efficiency and financial performance of the Malaysian domestic banking sector post 1997 financial crisis. The results suggested that the mergers did not enhance the productive efficiency of the banks as they did not indicate any significant difference. Sharkas et. al. (2008) investigated the cost and profit efficiency effects of bank mergers in USA. The empirical results showed that mergers over there improved the cost and profit efficiencies of banks.

The features that play vital roles in amalgamation of two firms are cultural diversity, sound communication and employee mix of the two firms. Doseck (2012) discussed the aspects of organizational culture, human capital management and change management and identified best practices and challenges of HRM professionals during the integration phase of mergers and acquisitions. It can be safely concluded from existing literatures that cultural differences between the merging firms were key elements affecting effectiveness of the integration process and consequently the success of M&As both nationally and internationally. (Lodorfos and Boateng (2006); Schraeder and Self (2003); Bijlsma-Frankema (2001); Carleton and Lineberry (2004); Mitleton-Kelly (2006); Lin, Hung, and Li (2006)). To capture a more complete picture of the role of human capital intervention during the integration stage of merger and acquisition, Rizvi (2011) found a positive association between human capital indicators and organisational performances through quantitative and qualitative study of firms. Weber (1996) remarked that integration has a negative impact on employee practices. Mylonakis (2006) examined the impact of M&A on employment and on the efficiency of human resources in some selected banks in European countries. It was observed that M&A results in the European bank market have been negative in terms of employment, since many jobs have been cancelled during the 1998-2003 period. Research related to human resource perspectives of M&As in India is at a nascent stage and we could lay our hand on a very limited number of studies. Goyal and Vijay (2011) provided insight on the idea of changes that occurred after M&As in the banking sector in terms of human resource & legal aspects. It also described the benefits coming out through M&As and discussed about communication in M&As and emphasized the role of media in M&As. Bhaskar et. al., (2009) found that in India, banks faced the problem of loosing old customer

and failed to attract the new customers. It described that the acquiring firms mainly focused on the economies of scale, efficiency gain and did not address the need of communication and employee concern. It was inferred that proactive communication, changes in organizational structure, and appropriate human resource integration would smoothen the journey towards successful integration. Islam et. al. (2012) investigated the context, process and consequences of the merger of State Bank of Indore with State Bank of India. They concluded that inadequate emphasis on the human resource aspects and employee resistance acted as impediments to merger of these two banks and delayed the process.

#### III. Research Issue

The underlying principle of Indian mergers and acquisitions can be questioned if the performances of the merged/acquiring firms do not show any enhancement in the long run. Therefore the objective of this study is to explore the impact of mergers and acquisitions in the Indian banking sector on the performance of banks. We aim to examine whether M&A in this sector have led to the improvement in performance of the merging banks or has the performance deteriorated after the merged entity was formed. We have concentrated on 10 M&A deals in the BSE-listed Indian banks during a timeframe spanning from 2000 to 2010. The change in performance levels of the banks, if any, in the post merger phase will be compared to the pre merger phase through selected HR and financial parameters.

Based on the objectives the following hypotheses were developed:-

 $H_1$ . There is no significant change on the Capital Adequacy Ratio of the acquirer Indian banks in the post M& A phase.

H<sub>2</sub>. There is no significant change on the HCROI of the acquirer Indian banks in the post M& A phase.

H<sub>3...</sub> There is no significant change in the ROCE of the acquirer Indian banks in the post M& A phase.

H<sub>4</sub>. There is no significant change in the EPS of the acquirer Indian banks in the post M& A phase.

H<sub>5</sub>- There is no significant change in the Loans and Advances of the acquirer Indian banks in the post M& A phase.

## IV. Research Methodology

The research methodology entails the following:-

The research work is empirical in nature. The study is based on a short run analysis of two periods-viz three years prior to the merger and three years immediately after the merger. Data and facts have been collected from India's leading business and economic database and research company CMIE's (Centre for Monitoring Indian Economy Pvt. Ltd.) database prowess 4.14. These facts have been supplemented by information from different business dailies, magazines and the websites of the Ministry of Corporate Affairs, Ministry of Statistics and Programme Implementation (MOSPI), Press Information Bureau, Government of India and the websites of the respective banks.

From the prowess database we found that 16 BSE listed banks have undergone M&As during the period of 2000-2010. Thus the target population of this study are these 16 banks. Total 35 M&A deals have taken place in these banks in the said period. Out of those 35 M&As, 14 of them were mergers with the subsidiaries of the acquiring companies. 14 of the M&As were overlapping i.e the pre-merger phase of one merger coincided with the post-merger phase of another in that period. Hence those M&As with overlapping periods were discarded as it would have been difficult to decipher the impact of an individual M&A on a bank. Out of the 21 non-subsidiary M&As, 10 reported non-overlapping M&As during the period of our study. Those 10 non-overlapping M&As were selected as the subject of our study. The banks under study includes the following:- Bank of India, Corporation Bank, HDFC Bank, ICICI Bank, IDBI Bank, Indusind Bank, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank and Vijaya Bank.

## V. Sample Profile

By recording the year of incorporation, we calculated the firm age of the sampled firms. It revealed that 30% of the firms were over 100 years old while 40% of the firms aged exactly 20 years. Punjab National Bank is the oldest firm in the sample, aged 119 years. The age of companies since merger discloses that presently 2 of the companies is above 90 years of age. Only 1 company of the sample i.e. Punjab National Bank has completed 100 years since merger. 4 of the firms are in the 9 years to 14 years age bracket.

With respect to the location of the registered office we find that 60% of the firms are concentrated in the state of Maharashtra with 20% in Karnataka and 20% in New Delhi.

By studying the ownership group, we find that three banks viz. Corporation Bank, Oriental Bank of Commerce and Vijaya Bank are under the control of government whereas the rest are either under private ownership or has government undertaking.

## VI. Data Analysis And Findings

The secondary data which has been collected was subjected to descriptive and inferential analysis. This study has attempted to test the hypotheses relating to the impact of M&A on the various performance parameters and thus derive a conclusion about whether the event of M&A has made a positive impact on the performance of these banks. The IBM software SPSS 20.0 and MS Excel were used to compute and analyze the data.

The ratios for each of the performance parameters were estimated for all the ten mergers individually. This was followed by the Shapiro-Wilk normality test. On the basis of the normality results, paired t test at 95% confidence level was carried out for parameters following normal distribution and Wilcoxon Paired Sign-Rank Test was computed for factors not following normal distribution. Thereafter, we compared means of the performance parameter over time i.e. before the merger vs after the merger. t-test and Wilcoxon test were chosen because those are popularly used for computing pre-post analysis of a phenomenon. The different parameters chosen for study were HCROI (Human Capital Return on Investment), EPS (Earnings Per Share), ROCE (Return on Capital Employed), loans and advances and capital adequacy ratio.

The following formulae have been used for computation purposes:-

Earnings Per Share: [(Profit after tax – Preference Dividend)] / Number of shares

**HCROI:** [Revenue-(Operating Expenses –Compensation)]/Compensation **t Test Results:**-

**Table I Capital Adequacy Ratio Paired Samples Statistics** 

|                 |          | Mean  | N       | Std. Deviation | Std. Error Mean |         |
|-----------------|----------|-------|---------|----------------|-----------------|---------|
| Capital<br>PRE  | Adequacy | Ratio | 11.5430 | 10             | 5.26267         | 1.66420 |
| Capital<br>POST | Adequacy | Ratio | 13.2880 | 10             | 2.17560         | .68799  |

Table II Capital Adequacy Ratio Paired Samples t Test

| _ | usic 11 Cupitur 11400   | 14445          | - WII - C - D - W  | Tipies e res |                |                 |     |    |          |
|---|---|----------------|--------------------|--------------|----------------|-----------------|-----|----|----------|
|   |   | Paired Differe | Paired Differences |              |                |                 |     | df | Sig. (2- |
|   |   | Mean           | Std.               | Std. Error   | 95% Confiden   | nce Interval of |     |    | tailed)  |
|   |   |                | Deviation          | Mean         | the Difference | •               |     |    |          |
|   |   |                |                    |              | Lower          | Upper           |     |    |          |
|   | Capital Adequacy<br>Ratio PRE –<br>Capital Adequacy<br>Ratio POST | -1 74500       | 6.90648            | 2.18402      | -6.68560       | 3.19560         | 799 | 9  | .445     |

Since the calculated value of t (0.799) for N=10 (as in TABLE II) is lower than the table value (2.262), we accept the null hypothesis. The results are not significant at 0.05 level of significance (p=0.445). This indicates that the means of the pre and post Capital Adequacy Ratio values are not different significantly.

From TABLE I, we observe that the post merger Capital Adequacy Ratio mean is greater than that of the pre merger period. We therefore conclude that it is more likely to have been due to some systematic and deliberate cause. If all other confounds are eliminated, this systematic cause must have been the event of merger.

$$\Pi^2 = (0.799)^2 / [(0.799)^2 + 10] = 6.001\%$$

So 6.001% of the variability in the better performance in the Capital Adequacy Ratio scores can be explained by this merger. We conclude that the phenomenon of merger improved the Capital Adequacy Ratio of the companies in the post merger period. The value of t is negative which simply indicates a reversal in the directionality of the effect, which has no bearing on the significance of the difference between groups. Previous research has shown that the Capital Adequacy Ratio has improved in Indian banks post merger. (Nedunchezhian and Premalatha (2013), E. Valkanov and S. Kleimeier (2008), Meena and Kumar (2014). However Ebimobowei and Sophia (2011) differed from the previous study as their research proved that capital adequacy ratio of Nigerian banks deteriorated post merger.

**Table III HCROI Paired Samples Statistics** 

|            | Mean   | N  | Std. Deviation | Std. Error Mean |
|------------|--------|----|----------------|-----------------|
| HCROI PRE  | 3.8230 | 10 | 4.54798        | 1.43820         |
| HCROI POST | 2.5550 | 10 | 1.64224        | .51932          |

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**Table IV HCROI Paired Samples t Test** 

|                           | Paired Di | Paired Differences |            |                |                 |       | df | Sig.    | (2- |
|---------------------------|-----------|--------------------|------------|----------------|-----------------|-------|----|---------|-----|
|                           | Mean      | Std.               | Std. Error | 95% Confiden   | ice Interval of |       |    | tailed) |     |
|                           |           | Deviation          | Mean       | the Difference |                 |       |    |         |     |
|                           |           |                    |            | Lower          | Upper           |       |    |         |     |
| HCROI PRE – HCROI<br>POST | 1.26800   | 3.78531            | 1.19702    | -1.43985       | 3.97585         | 1.059 | 9  | .317    |     |

Since the calculated value of t (1.0599) for N=10 (as in TABLE IV) is lower than the table value (2.262), we accept the null hypothesis. The results are not significant at 0.05 level of significance (p=0.317). This indicates that the means of the pre and post HCROI Ratio values are not different significantly.

From the paired samples statistics table (TABLE III), we observe that the pre merger HCROI Ratio mean is greater than that of the post merger period. We therefore conclude that it is more likely to have been due to some systematic and deliberate cause. If all other confounds are eliminated, this systematic cause must have been the event of merger.

 $\Pi^2 = (1.059)^2 / [(1.059)^2 + 10] = 10.08\%$ 

So 10.08% of the variability in the reduced performance in the HCROI Ratio scores can be explained by this merger. We conclude that the phenomenon of merger did not improve the HCROI Ratio of the companies in the post merger period. Previous research has proved that there is a positive association between different human capital indicators post M&A period. (Rizvi (2011); Seleim et. al. (1996); Bouillon (1996); Hitt et. al. (2000); Brown and Medoff (1987); Conyon et. al. (2000).

Table V ROCE (PAT as % of Capital Employed) Paired Samples Statistics

|           | Mean   | N  | Std. Deviation | Std. Error Mean |
|-----------|--------|----|----------------|-----------------|
| ROCE PRE  | 8.4170 | 10 | 5.14938        | 1.62838         |
| ROCE POST | 8.7480 | 10 | 4.47169        | 1.41407         |

Table VI ROCE (PAT as % of Capital Employed) Paired Samples t Test

|     |                        | Paired Dif | Paired Differences |            |                | t                 | df  | Sig. (2-tailed) |      |
|-----|------------------------|------------|--------------------|------------|----------------|-------------------|-----|-----------------|------|
|     |                        | Mean       | Std. Deviation     | Std. Error | 95% Confidence | e Interval of the |     |                 |      |
|     |                        |            |                    | Mean       | Difference     |                   |     |                 |      |
|     |                        |            |                    |            | Lower          | Upper             |     |                 |      |
| 1 1 | ROCE PRE – ROC<br>POST | E33100     | 2.49145            | .78787     | -2.11328       | 1.45128           | 420 | 9               | .684 |

Since the calculated value of t (0.420) for N=10 (as in TABLE VI) is lower than the table value (2.262), we accept the null hypothesis. The results are not significant at 0.05 level of significance (p=0.684). This indicates that the means of the pre and post ROCE values are not significantly different.

From the paired samples statistics table (TABLE V), we observe that the pre merger ROCE value is slightly lesser than that of the post merger period. We therefore conclude that it is more likely to have been due to some systematic and deliberate cause. If all other confounds are eliminated, this systematic cause must have been the event of merger.

$$\Pi^2 = (0.420)^2 / [(0.420)^2 + 10] = 1.73\%$$

So 1.73 % of the variability in the better performance in the ROCE scores can be explained by this merger. We conclude that the phenomenon of merger did not improve the ROCE of the companies in the post merger period. Previous studies revealed that post merger ROCE improved in Indian Banks (Meena and Kumar (2014). However the study by Imeokparia and Lawrence (2014) discovered that M&A had no significant effect on ROCE of Nigerian banks.

**Table VII EPS Wilcoxon Test- Ranks** 

|                       |                | N              | Mean Rank | Sum of Ranks |  |  |
|-----------------------|----------------|----------------|-----------|--------------|--|--|
|                       | Negative Ranks | 1 <sup>a</sup> | 2.00      | 2.00         |  |  |
| EPS_POST - EPS_PRE    | Positive Ranks | 9 <sup>b</sup> | 5.89      | 53.00        |  |  |
| EPS POST - EPS PRE    | Ties           | $0^{c}$        |           |              |  |  |
|                       | Total          | 10             |           |              |  |  |
| a. EPS post < EPS pre |                |                |           |              |  |  |
| b. EPS post > EPS pre |                |                |           |              |  |  |
| c. EPS post = EPS pre |                |                |           |              |  |  |

Table VIII EPS Wilcoxon Test Statistics<sup>a</sup>

|                               | EPS POST – EPS PRE  |  |  |  |  |
|-------------------------------|---------------------|--|--|--|--|
| Z                             | -2.599 <sup>b</sup> |  |  |  |  |
| Asymp. Sig. (2-tailed)        | .009                |  |  |  |  |
| Exact Sig. (2-tailed)         | .006                |  |  |  |  |
| Exact Sig. (1-tailed)         | .003                |  |  |  |  |
| Point Probability             | .001                |  |  |  |  |
| a. Wilcoxon Signed Ranks Test |                     |  |  |  |  |
| b. Based on negative ranks.   |                     |  |  |  |  |

TABLE VII shows that the negative mean rank is less than the positive mean rank. This suggests that the EPS measure post merger is likely higher than that in the pre merger period. So we can infer that the phenomenon of merger has accentuated this performance parameter. Previous research has shown that the activity of M&A has a mixed impact on EPS and share price of enterprises post merger. (Mahesh R. and Daddikar, P. (2012); Loughran, T. et. al. (1997); Hassan, M. et. al. (2007); Tuch, C. and Sullivan, N. O. (2007); Delaney, F.T. and Wamuziri, S.C. (2004); Kumar, B.R. and Panneerselvam (2009); Al-Sharkas, A.A.(2010) and Ramakrishnan, K. (2010)).

Table IX Loans and Advances Wilcoxon Test- Ranks

|   |                | N              | Mean Rank | Sum of Ranks |  |
|---|----------------|----------------|-----------|--------------|--|
|   | Negative Ranks | 2 <sup>a</sup> | 6.00      | 12.00        |  |
| Loans & Advances POST - Loans &                 | Positive Ranks | 8 <sup>b</sup> | 5.38      | 43.00        |  |
| Advances PRE                                    | Ties           | O <sup>c</sup> |           |              |  |
|   | Total          | 10             |           |              |  |
| a. Loans & Advances POST < Loans                | & Advances PRE |                |           |              |  |
| b. Loans & Advances POST > Loans & Advances PRE |                |                |           |              |  |
| c. Loans & Advances POST = Loans & Advances PRE |                |                |           |              |  |

Table X Loans and Advances Wilcoxon Test Statistics<sup>a</sup>

|                               | Loans & Advances POST – Loans & Advances PRE |
|-------------------------------|--|
| Z                             | -1.580 <sup>b</sup>                          |
| Asymp. Sig. (2-tailed)        | .114   |
| Exact Sig. (2-tailed)         | .131   |
| Exact Sig. (1-tailed)         | .065   |
| Point Probability             | .013   |
| a. Wilcoxon Signed Ranks Test |  |
| b. Based on negative ranks.   |  |

Table IX shows that the negative mean rank is higher than the positive mean rank. This suggests that the amount of Loans & Advances position post merger is likely lesser than that in the pre merger period. So we can infer that the phenomenon of merger has turned down the Loans & Advances position of the companies. Study by Sani, John and Alan (2013) established that recapitalization had significant effect on loans and advances in Banks of Nigeria.

## VII. Conclusion

This paper studied five parameters which can throw light on the performance of the Indian banks in the pre and post merger phases during 2000-2010. Three parameters i.e. Capital Adequacy Ratio, ROCE and EPS revealed a better performance in the post merger period. The remaining two aspects selected for computing the performance divulged reduced performance in the period post merger. None of the five parameters disclosed any significant change. Since three out of five parameters have shown slight enhancement during the post merger phase, it may be concluded that the change in the overall performance of the banks due to merger in the period of 2000-2010 was better than their pre-merger phase. It is assumed that the conclusion of the present research corresponds to the extension of the existing research literature that may be usefully applied elsewhere in taking decision involving M&As. A limitation of this study is that no control group was studied. The target firms which had undergone M&A were not taken into account due to paucity of data. However this study paves a way towards further research using longer time periods and inter-sectoral studies. It also encourages future studies on several other HR and financial aspects which are influenced by the phenomenon of mergers and acquisitions.

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