SJIF Impact Factor 2021: 7.13| ISI I.F.Value:1.241| Journal DOI: 10.36713/epra2016 ISSN: 2455-7838(Online)
EPRA International Journal of Research and Development (IJRD)
Volume: 6 | Issue: 2 | February 2021 - Peer Reviewed Journal

A STUDY OF NON-PERFORMING ASSETS OF ICICI BANK: PRE-MERGER AND POST-MERGER ANALYSIS

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Article DOI: https://doi.org/10.36713/epra6374

ABSTRACT

The purpose of this paper is to examine the impact of mergers and acquisitions (M&A) of Industrial Credit & Investment Corporation of India (ICICI Bank) and Bank of Rajasthan on non-performing assets (NPAs) of Industrial Credit & Investment Corporation of India (ICICI Bank). The analysis consists of two stages. The methodology adopted in the study is based on descriptive research wherein secondary data was collected from the official websites of ICICI bank. By using MS Excel 2016 software, the data was analysed by using the ratio analysis approach, to determine the variation in the current position and secondly, the change in the efficiency of the banks during the pre-merger and post-merger periods by using descriptive statistics in the context of non-performing assets.

KEYWORDS: *Non-performing Assets, Merger Acquisition, Pre-merger and Post-merger, CAGR (Compounded Annual Growth Rate), Earning per share.*

1. INTRODUCTION

A bank is a financial institution that accepts deposit from the public and create demand deposit. It can perform lending activities directly or indirectly through capital markets. Banking evolved in fourteen Century as a modern concept. It made headway in the prosperous cities of Renaissance Italy but in many ways was a continuation of ideas and concepts of credit and lending that had their roots in the ancient world.

Bank is termed as a financial institution works as a mobiliser of funds because it moves money from surplus areas to deficit areas. In general terms banks is a corporation which was authorised by the government to deal with the deposits of money, giving loans to different financially deficit areas and keep investing in government securities. From the economical point of view, a bank helps in the growth of an economy and expansion of the economy by giving loans for investments. With the changing environment, many policies was adopted by financial institutions to survive but the main strategy of financial institutions was merger of banks which

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helps them to increase their efficiency and profitability.

We have seen that many banks have been already merged to achieve strength economies of scale in India. In 1921, one bank named as Imperial Bank of India was formed after amalgamation of three presidency banks viz. The Bank of Calcutta, The Bank of Madras and The Bank of Bombay afterwards this bank becomes State Bank of India in year 1955. After that many mergers have been done in banking sector just to make them survive.

ICICI bank which was a multinational financial institution head quartered in Mumbai, Maharashtra was established by the name of Industrial Credit and Investment Corporation of India initially in 1995. ICICI bank is the second largest bank in terms of assets and market capitalization having subsidiary in many countries. The bank has a network of 4882 branches and 15101 ATMs across India and has a presence in 17 countries including India. ICICI bank is one of four big Indian Banks which provides many services like Retail banking, corporate banking, investment banking, wealth management, mortgage loans, credit cards, finance and Insurance.

Bank of Rajasthan is a Private banks having 458 offices. It was founded by Late Seth Shri Govind Ram Seksaria (chairman) at Udaipur in 1943, with an initial capital of INR 10 lacs. The Bank was included in the Second Schedule of the Reserve Bank of India in the year 1948. The Bank was among the first banks to introduce the concept of mobile branches, with the opening of its first mobile branch in Jaipur on 5th August, 1960.

ICICI Bank is a strong bank which was merged with the Bank of Rajasthan in 2010 after the approval of boards of both the banks. Under this deal ICICI Bank would give 25 shares for 118 shares (1:4.72) of Bank of Rajasthan. All branches of the Bank of Rajasthan will now function as the branches of the ICICI Bank. Reserve Bank of India approved the deal between both the banks for Rs 3000 crores.

2. LITERATURE REVIEW

S. No	Year	Author	Objective	Research Methodology	Findings
1.	Apr-Jun 2016	Dr.Neha Chabbara Roy, Vyshnavi, Ravikindi Pushpa,	1. To find the factors promoting mergers and acquisitions in banking sector. 2. To do Pre and Post-merger Valuation on ICICI Bank and Bank of Rajasthan. 3. To forecast profitability of merged firm.	Secondary data is collected from the Capitaline Database and RBI database. Data from 2007-2014 financial statements analysis using DCF techniques.	1. Improved profitability of the ICICI bank. 2. Increased the number of branches and ATM's and it has been beneficial for both the banks. 3. Share price of Bank of Rajasthan has appreciated by 77% but the price of ICICI fell by 1.7%
2.	Jan-Jun 2019	Sujit Kumar Patra, Ajitabh Dash	1. To study the reasons behind the merger of SBI with its five associated banks 2. To analyse the employee productivity of SBI 3. To analyse the branch productivity of SBI 4. To analyse the post-merger performance of SBI	2014-2018 secondary sources which includes the Annual Reports of the SBI RBI Database Profile of Banks -various issues; research publications (CAGR, T-Test, Employee & Branch Productivity ratios)	1. The deposits and advances of SBI post-merger grew by 11.92 % and 12.54% as against 13.22% and 18.97 %; profits have recorded a CAGR of 1.56 % as against pre-merger CAGR of 21.30%. 2. The number of employees increased by 20% during the post-merger period and its CAGR was in negative during the pre-merger period 3. The number of branches increased by 4.04% as against 3.17 % during the pre-merger

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					period
3.	Jan 2019	Neelam Tandon, Deepak Tandon, Navneet Saxena	1. Analyse the proposed merger using EPS method for determining the advantages of merger 2. Analyse the balance sheet of bidder bank pre and post-merger 3. Study the advantages offered by the merger and the problems related to the merger.	Earnings per Share (EPS) method, Secondary Data, balance sheets of SBI have been analysed	No of branches increase, Post-merger, the total liabilities of SBI are expected to rise by approximately 26%, whereas the total assets are expected to rise by only 22% and the total profit by 17%, Expensive Task due to reallocation of resources.
4	2016	Rao, K.S; Kumar, K Phani	Case study presentation	Kotak Mahindra Bank and ING Vysya Bank	
5	2018	Miss. Anjali Prava Mishra Mr. Muna Sahoo	1. To study the financial performance of SBI and its associates 2. To measure the impact of NPAs on profitability of SBI and its associates	Statistical tools and techniques such as percentages, ratios, Regression Model and ANOVA are used in this study. Statistical packages like SPSS, NumXL and XLSTAT are used for the data processing, Hypothesis Testing(2004-05 to 2016-17)	1.The amount of NPA has increased from Rs. 63629 million to Rs. 969322 million whereas Net Profit of SBI and its associates have decreased from Rs.56759 million to Rs.-13827 million during the period (2005-2017). 2.Increase in Net NPA of SBI and its associates do not have any significant impact on its net profit, Return on Equity, Return on Investment, Return on Advances and Net Interest Margin
6	2019	Bisma Afzal Shah And Khursheed Ahmad Butt	1. To analyse the impact of mergers and acquisitions on the operating performance of the sample companies 2. To assess the impact of mergers and acquisitions on the financial performance of the sample companies 3. To analyse the impact of mergers and acquisitions on shareholder's return.	Secondary data collected from the repository of Centre for Monitoring Indian Economy (CMIE). two sample paired t-test The financial ratios used to analyse the impact of a merger or acquisition	There are finally growth in assets, reduction in expenses, increase in profitability margins, and returns to the shareholders
7	2019	S. Narasimha Chary, Mohd Fasi	1. To analyse the Gross NPA and Net NPAs of selected public sector banks 2. To assess the trends of NPAs of selected public sector banks 3. To analyse the impact of non-performing assets on the performance of	The data is collected from RBI publications, annual reports of banks, journals, official records and other published sources.	1. Unable to bring back the bad loans or the unproductive loans to the banks, 2. Non-performing assets are seriously affecting the banking system, resulting in lower profitability, loss and inconsistency in financial performance of

			public sector banks		Indian banking system in general and public sector banks in particular.
8	2014	Abbas, Hunjra, Saeed, Ul-Hassan, and Ijaz	1. Examined the performance of banks during pre and post M&As in Pakistan by evaluating 10 banks		1. no significant improvement in the banks' financial performance 2. a decrease in profitability, efficiency, liquidity, and leverage ratios were also reported.
9	2012	Mahesh and Prasad	The financial performance of these on the post-merger and acquisition, within 2005-2010 period of time were analysed	Interest coverage, dividend per share, net profit margin, earning per share, and return on equity were the variables used for the study. Besides, paired sample t-test	The results show insignificant improvements in the dependant variables undertaken for the study
10	2016	Toumil Hassen Fakhri, Amouri Bilei, Touili Nassim, Hamidi Faouzi	The profitability of European private Banks	M.E and S.E Estimation	Gain in Efficiency, increase in long term profits in terms of ROA and ROE.
11	Nov,2010	Dr. Neena Sinha, Dr.K.P.Kaushik, Ms. Timcy Chaudhary	Measuring Post Merger and Acquisition Performance: An Investigation of Select Financial Sector Organizations in India	a. Sample Description b. Wilcoxon Signed Rank Test Methodology c. Ratio analysis	1. More than half of the merging firms showed improved financial performance in the post-merger time period 2. Significant change in Debt- Equity Ratio
12	Aug 2012	Gordon M. Phillips Alexei Zhdanov	R&D and the incentives from merger and acquisition activity	1. Regression Analysis 2. Acquisition Activity and Industry Demand and Supply 3. Summary Statistics	1. Possibility of an acquisition amplifies the potential gains. 2. merger and acquisition activity strongly increases firms' incentives to conduct R&D.
13	Dec 2005	Myeong-Gu Seo N. Sharon Hill	Understanding the Human Side of Merger and Acquisition	Various theories and frameworks	There are ways to acquire a firm other than a merger
14	2006	Susan Cartwright Richard Schoenberg	30 years of mergers and acquisitions research: recent advances and future opportunities	Symposium	1. Executives are undertaking acquisitions driven by non-value maximizing motives 2. The prescriptions from the academic research have not reached the practitioner Community 3. The research to date is

					incomplete in some way.
15		Vassilis M. Papadakis	To investigate what actually influences a merger and acquisitions (M&As) successful implementation.	1. Hypothesis testing 2. Reliability and validity testing	1. Comparing both accounting and stock return 2. Testing more detailed models of M&A performance.
16	Feb, 2013	Stephen P.Ferris Narayanan Jayaraman Sanjiv Sabherwal	CEO Overconfidence and International Merger and Acquisition Activity	Correlation Regression Poisson regression Logistic Regressions	1. it is unclear whether results obtained for U.S. mergers will hold globally. 2. overconfidence is related to avariety of merger characteristics.
17	2018	1. Josua Tarigan 2. Alfonsis Claresta 3. Saarce Elsye Hatane	Analysis of merger & acquisition motives in indonesian listed companies through financial performance perspective	Descriptives Statistics Normality Test Hypothesis Testing	1. companies undergoing M&A in the period of 2009 until 2012 focus more on growth strategy, shown by the increase of liquidity ratio. 2. Solvency had also increased significantly
18	Octobe r 2017	1. V. M. Lakhwani 2. S. Tiwar 3. S. Jauhar	Mergers and acquisitions' impact on financial performance: An evaluation with perspective of time	EXPERIMENTAL	1. there is improvement in the performance of 18 companies after merger. 2. ROA of only six companies has shown significant effect in terms of improvement
19	2019	MAUREEN KIMETTO	EFFECT OF SYNERGY THROUGH MERGERS AND ACQUISITIONS ON A FIRM'S FINANCIAL PERFORMANCE IN KENYA: A CASE OF SIDIAN bank	Correlation Analysis of Variance (ANOVA) Regression Coefficients case study	1. operation synergy had a significant effect on the financial performance of bank. 2. improved financial performance in terms of profitability for the banks
20	2011	Yelena V. SMIRNOVA	Motives for Mergers and Acquisitions in the Banking Sector of Kazakhstan	Case study	1. motives for M&A deals in 2009 were different from the prior. 2. Some mergers and acquisitions in Kazakhstani banking sector were driven by internal impellent.

3. OBJECTIVE OF THE STUDY

The following are the objectives of the study:

1) To study the pre-merger and post-merger impact of merger and acquisition on the Non-performing assets of Industrial Credit & Investment Corporation of India (ICICI Bank)
2) To study the pre-merger and post-merger impact of merger and acquisition on the profitability of Industrial Credit & Investment Corporation of India (ICICI Bank).
3) To study the pre-merger and post-merger impact of merger and acquisition on the

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number of branches of Industrial Credit & Investment Corporation of India (ICICI Bank).

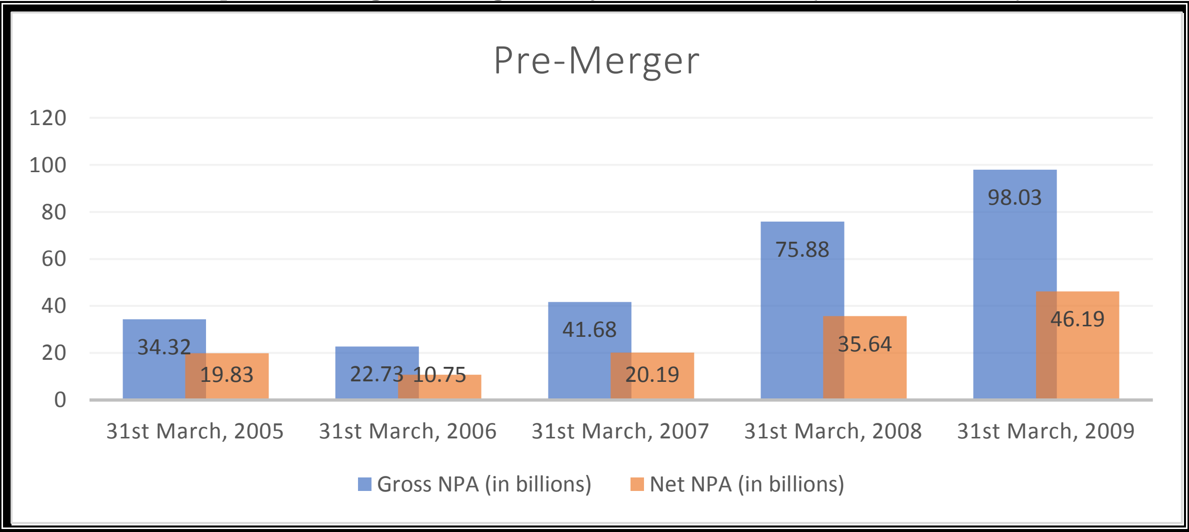
4. DATA AND METHODOLOGY

Data for the study has been taken from Official website of ICICI Bank and analysed through the use of Excel-2016. Secondary data related to Non-performing Assets from Year 2006-2015 has been taken from ICICI Bank Database.

TABLE : 1 Showing the Gross and Net NPAs from 2005 to 2009
PRE-MERGER :

Date	Gross NPA (in billion)	Net NPA (in billion)
31st March, 2005	34.32	19.83
31st March, 2006	22.73	10.75
31st March, 2007	41.68	20.19
31st March, 2008	75.88	35.64
31st March, 2009	98.03	46.19
Date	**(%) Change in Gross NPA**	**(%) Change in Net NPA**
31st March, 2005	-33.77%	-45.79%
31st March, 2006	83.37%	87.81%
31st March, 2007	82.05%	76.52%
31st March, 2008	29.19%	29.60%
31st March, 2009	-1.80%	-15.54%

Graph 1 Showing Pre-merger analysis of ICICI Bank (Year 2005-2009)



- **ICICI Bank and Bank of Rajasthan were merged in the year. Therefore, the data of year 2010 is used in post merger analysis.**

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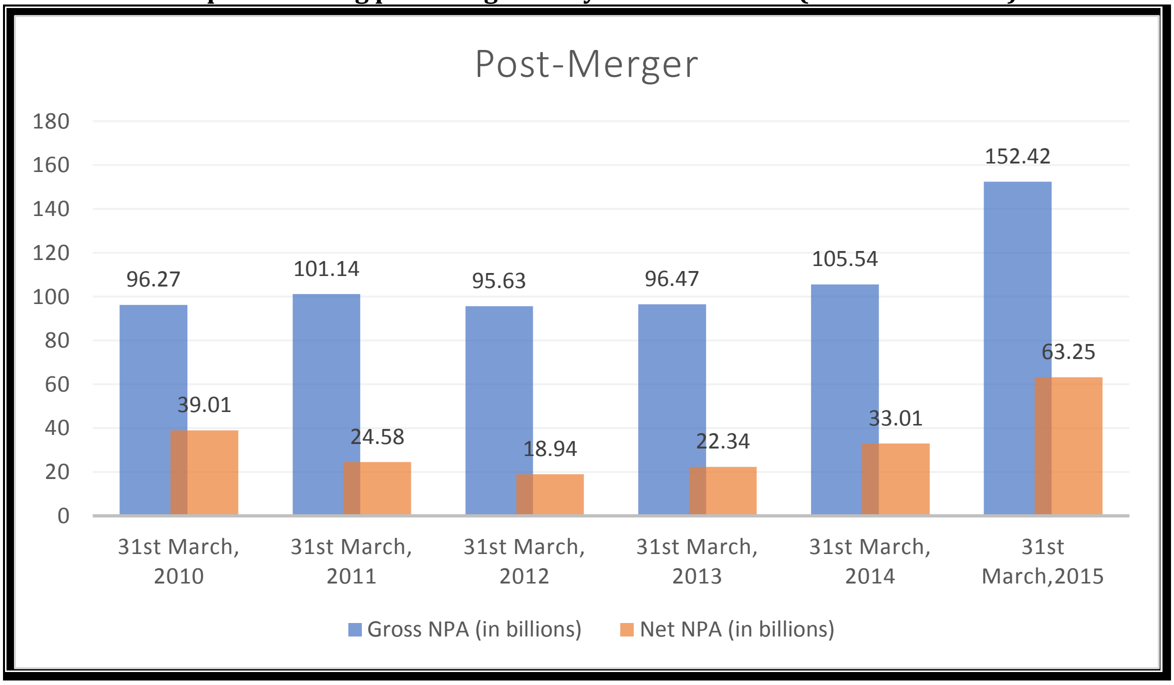
TABLE : 2 Showing the Gross and Net NPAs from 2010 to 2015.

Date	Gross NPA (in billions)	Net NPA (in billions)
31st March, 2010	96.27	39.01
31st March, 2011	101.14	24.58
31st March, 2012	95.63	18.94
31st March, 2013	96.47	22.34
31st March, 2014	105.54	33.01
31st March,2015	152.42	63.25
Date	**(%) Change in Gross NPA**	**(%) Change in Net NPA**
31st March, 2010	5.06%	-36.99%
31st March, 2011	-5.45%	-22.95%
31st March, 2012	0.88%	17.95%
31st March, 2013	9.40%	47.76%
31st March, 2014	44.42%	91.61%

Graph 2 showing post merger analysis of ICICI bank (Year 2010-2015)



Graph 3: Showing the (value in billion) of Gross and Net NPAs from 2005 to 2015.

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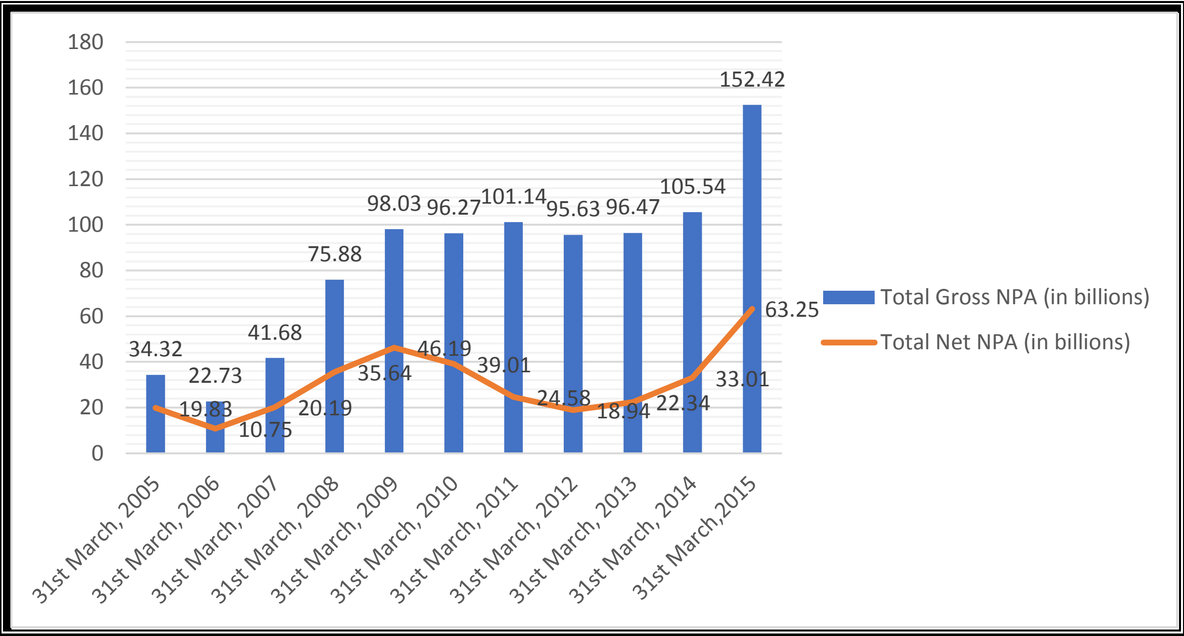

Combined Analysis of table 1 & 2:

- Table 1 shows Non-performing Assets of ICICI Bank in Absolute Terms whereas Table 2 shows Non-performing Assets in Relative Terms.
- From Table 1, it is concluded that an increase in overall trend of Non-performing Assets of ICICI Bank was there except for the years 2006, 2010 and 2012. This three years have a negative ratio which means Non-performing Assets of this years has been decreased from the last year.
- NPAs were decreased from 34.32 billion to 22.73 billion in Year 2005 and 2006.
- Bank has 98.03 billion NPA in 2009 and in 2010 NPA were decreased to 96.27 billion.
- In 2011 ICICI Bank has Gross NPA of 101.14 billion which were decreased to 95.63 billion which means bank has recovered approx. 6 billion of Gross NPAs.
- IN 2015, ICICI has the highest NPA of 152.42 billion of Gross NPA which was 105.54 billion in the last year. An increase of approx. 47 billion Gross Non-performing Assets in just one year.
- The Bank has approx. 50% of their Gross Non-performing Assets as Net Non-performing Assets.
- ICICI Bank's NPA was less than 100 billion in each year before the merger but after the merger of both the banks NPAs crossed 100 billion and in 2015 it becomes 152 billion. But they are able to collect the bad loans and balance it.
- After 2010, ICICI Bank has stable increase in NPA till 2014, but with increase in branches and products of ICICI Bank, increase in NPA is lower.
- It is also concluded that ICICI Bank is efficient in coping up with the Non-performing Assets.

TABLE 3 : Showing the value of share price (in INR) from 2005 to 2009.
Pre-Merger :

Date	Share Price (in INR)	Earnings per Share (in INR)
31st March, 2005	401.48	27.6
31st March, 2006	603.77	32.5
31st March, 2007	809.34	34.8
31st March, 2008	761.16	39.4
31st March, 2009	338.45	33.8

(SOURCE : NSE and https://www.icicibank.com/aboutus/annual.page)

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Graph 4 showing pre-merger analysis of ICICI bank (Year2005-2009)

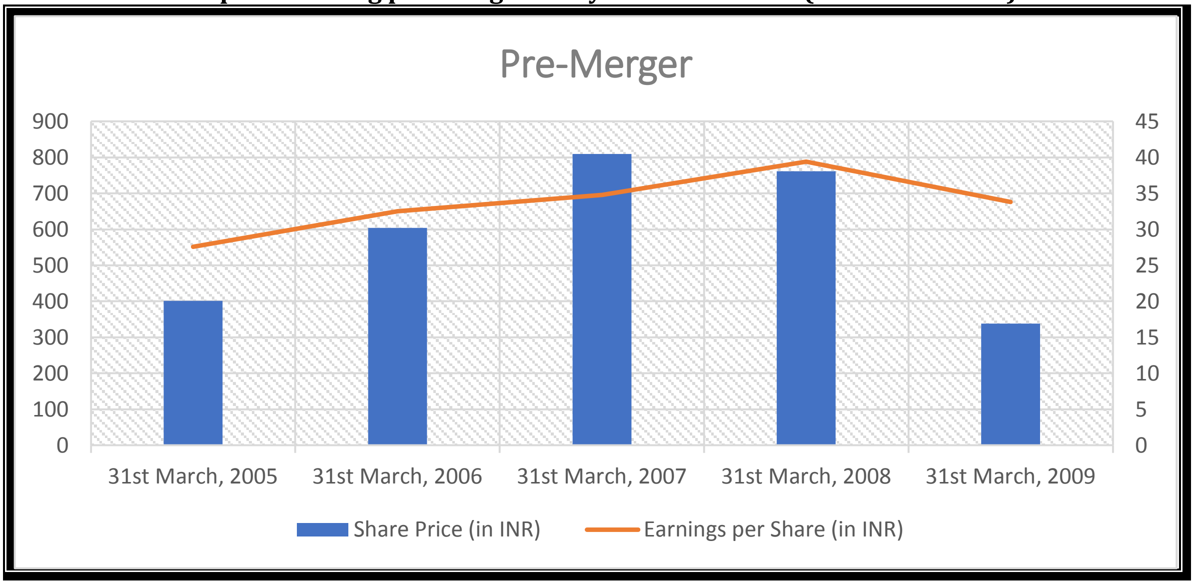
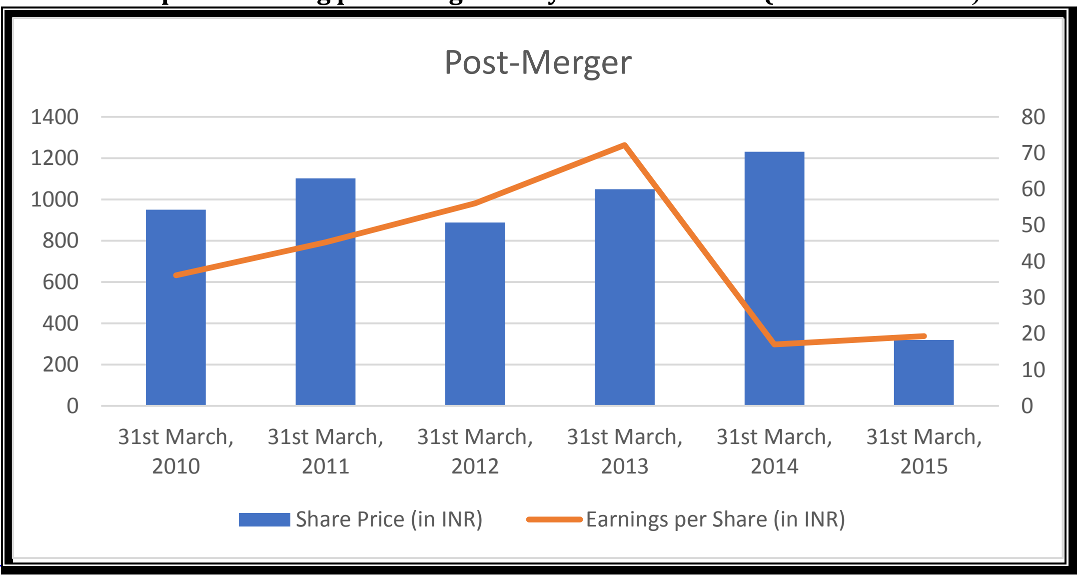


TABLE 4 : Showing the value of share price in INR from 2010 to 2015.
Post-Merger :

Date	Share Price (in INR)	Earnings per Share (in INR)
31st March, 2010	950.92	36.14
31st March, 2011	1,103.14	45.27
31st March, 2012	888.47	56.11
31st March, 2013	1,049.70	72.2
31st March, 2014	1,231.68	17
31st March, 2015	319.63	19.32

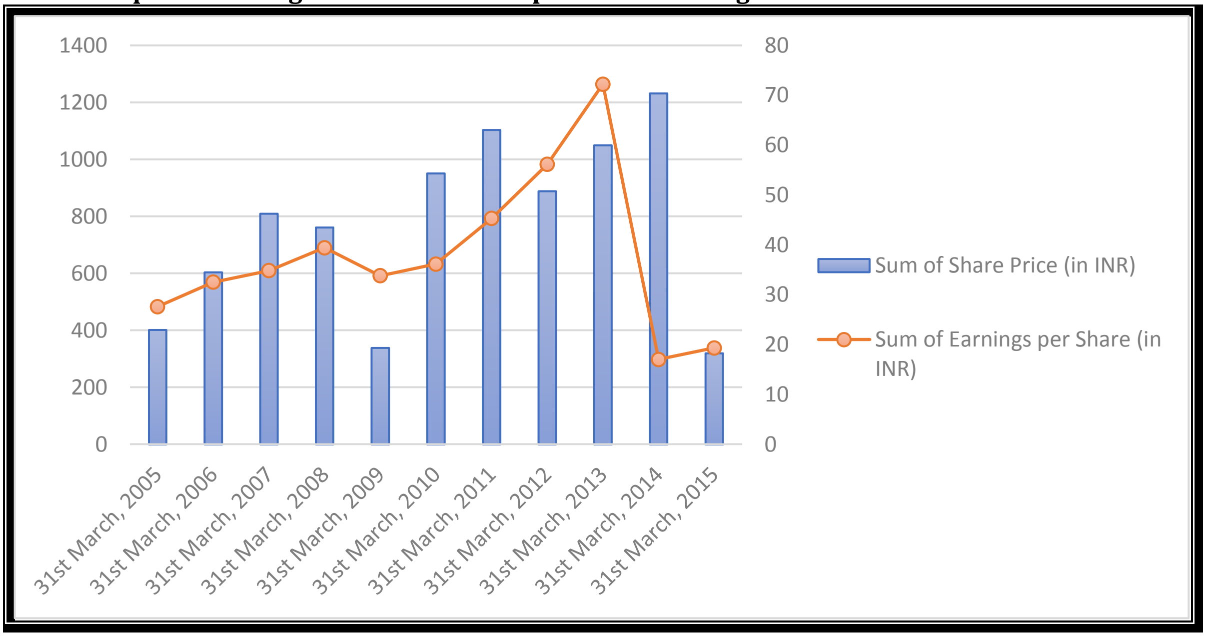
Graph 5: showing post-merger analysis of ICICI bank (Year 2010-2015)



Combined Analysis of table 3 and table 4:

- Before 2010, ICICI has EPS which ranges between INR 20-40 and a continuous increment in EPS was reported except for the year 2009. In 2009, EPS was INR 33.8 which was decreased from INR 39.4 in 2008.
- In 2010, EPS again increased and becomes INR 36.14 which again increased in Year 2011 to 45.27 INR.
- EPS was decreased to INR 17 in year 2014 which was INR 72.2 in 2013 which was highest in all 11 years.
- In 2014, ICICI Bank created a benchmark of INR 1,231.68 and in year 2015 Share price is at lowest (INR 319.63)
- ICICI has many fluctuations in the share price over the years.

Graph 6: showing the value of Share price and Earning Per Share from 2005 to 2015.



CONCLUSION

- ICICI Bank's NPA was less than 100 billion in each year before the merger but after the merger of both the banks, NPAs crossed 100 billion and in 2015 it becomes 152 billion. But they are able to collect the bad loans and balance it.
- After 2010, ICICI Bank has stable increase in NPA till 2014, but with increase in branches and products of ICICI Bank, increase in NPA is lower.
- Before 2010, ICICI has EPS which ranges between INR 20-40 and a continuous increase in EPS was there except for the year 2009. In 2009, EPS was INR 33.8, which was decreased from INR 39.4 in 2008.
- Since ICICI Bank was able to recover the bad loans which also shows that overall there was no huge impact of merger on EPS of the bank.

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