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## Mergers and Acquisitions of Indian Banking Sector

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### ABSTRACT:

*Banking is one of the important sectors of Indian economy. The purpose of this paper is to examine the comparative position of pre & post-merger financial performance of selected banks. Present study highlights the major gaps in financial performance compared through Economic value added. Using data drawn from money control and yahoo finance this present exploratory study covers a sample of six banks, which got merged during 2004 to 2010. Economic value added approach is used to compare pre and post-merger financial performance. The study reveals that post-merger financial performance has improved in major cases. Finally, evidence is presented that proper analysis before the merger deal can improve bank's performance. Because of the chosen research approach, the research results may not be generalizable for all banks. The paper includes implications for top management of banks in designing merger deal, which can be beneficial for them to have synergy gain in terms of financial, stock performance and wealth maximization.*

### INTRODUCTION:

The Indian banking sector is a spine of Indian economy. In the last few years, the Indian banking sector has made brisk growth in terms of revenue due to favourable factors, but few banks were not able to perform well. To improve performance, many banks were merged with other banks. A part from this objective, the merger is to improve banking services, create operational and financial synergy, market share gain, value maximization, market expansion & creation of large identity. Among all this, the matter that needs much concern is how the merger affects the overall financial performance of banks.

In 1980, merger and company performance was important issue in front of management thinkers. An empirical study (Michael Lubatking, 1983) has made an argument that merger results in improvement of the firm's performance. Studies in 90's have also examined the performance of the firm. (Healy, 1992) has studied the performance of firms using a sample of the 50 largest merger between U.S public, industrial firms completed in the period 1979 to 1983. A study has revealed that after the merger, there was improvement in performance in terms of assets utilization, productivity and long-term investment. (Marcia, 1991) had analysed the post-merger financial performance of largest banks merged during 1982 to 1987 & enhanced the after merger, assets growth and employee productivity has improved. Some argue that mergers and acquisitions activities create agency problems, resulting in less than optimal returns (Jensen, 1986) where as other argue that M & A create synergies that result into benefit for firm (Weston et al, 2004)

This is a comprehensive review of the merger and firms performance. Again, there is no systematic literature review of merger and firm's performance which has been measured from different parameters. Given the fact that the merger and firm's performance has scope for further studies. Thus, there is a need to analyses pre & post merger impact of merger on financial performance. Research Gap can be seen at various points in present studies where there are scope for further study. So, to fulfill this gap, this present study will address the Comparison of pre & post-merger financial performance using Economic Value Added (EVA). The main objective of this study is to analyse the comparative position of pre & post-merger financial performance of selected banks.

The reminder of the paper is organized as follows. Section 2 explains the theoretical background of different literature on merger and firm's performance. The methodology is presented in section 3. Empirical evidence and discussion on data analysis is presented in section 4. Conclusion is presented in section 5. Below given table 1 show various merger happen in Indian banking industry.

Table:1 Merger & Acquisition in Indian banking Industry

Sr. No	Name of the Transferor Bank	Name of the Transferee Bank	Date or Merger
1	Bank of Bihar Ltd	State Bank of India	November 8, 1969
2	National Bank of Lahore Ltd.	State Bank of India	February 20, 1970
3	Miraj State Bank Ltd.	Union Bank of India	July 29, 1985
4	Lakshmi commercial bank ltd	Canara Bank	August 24,1985
5	Bank of cochin Ltd	State Bank of India	August 26, 1985
6	Hindustan Commercial Bank Ltd	Punjab National Bank	December 19,1986
7	Traders Bank Ltd.	Bank of Baroda	May 13, 1988
8	United Industrial Bank Ltd.	Allahabad Bank	October 31, 1989
9	Bank of Tamilnadu Ltd.	Indian Oversease Bank	February 20, 1990
10	Bank of Tanjavur Ltd.	Indian Bank	February 20, 1990
11	Parur Central Bank Ltd.	Bank of India	February 20, 1990
12	Purbanchal Bank Ltd.	Central Bank of India	August 29, 1990
13	New Bank of India	Punjab National Bank	September 4, 1993
14	Bank of harad Ltd	Bank of India	1993-1994
15	Kashi Nath Seth Bank Ltd.	State Bank of India	January 1, 1996
16	Bari Doab Bank Ltd	Oriental Bank of commerce	April 8, 1997
17	Punjab Co-operative bank Ltd.	Oriental Bank of commerce	April 8, 1997
18	Bareilly Corporation Bank Ltd	Bank of Baroda	June 3, 1999
19	Siikkim Bank Ltd	Union Bank of India	December 22,1999
20	Times Bank Ltd.	HDFC bank Ltd	February 26, 2000
21	Bank of Madura Ltd.	ICICI bank Ltd	March 10, 2002
22	ICICI Ltd	ICICI Bank Ltd.	May 3, 2002
23	Benares State Bank Ltd	Bank of Baroda	June 20, 2002
24	Nedunagadi Bank Ltd.	Bank of Baroda	June 25, 2004
25	South Gujarat Bank Ltd.	Bank of Baroda	June 25, 2004

26	Global Trust Bank Ltd.	Oriental Bank of commerce	Agust 14, 2004
27	IDBI Bank Ltd	IDBI Ltd.	April 2, 2005
28	Bank of Punjab Ltd.	Centurion Bank Ltd	Octboer 3, 2006
29	Ganesh bank of kurundwad ltd	Federal Bank Ltd	September 2, 2006
30	United Western Bank Ltd.	IDBI Ltd.	Octbor 3, 2006
31	Bharat Oversease Bank LTd.	Indian Oversease Bank	March 31, 2007
32	Sengali Bank Ltd.	ICICI Bank Ltd.	April 19, 2007
33	Lord Krishna Bank Ltd.	Centurion Bank of Punjab	August 29, 2007
34	Centurion Bank of Punjab Ltd.	HDFC Bank Ltd.	May 23, 2008
35	The Bank of Rajasthan	ICICI Bank Ltd	August 13, 2010
36	ING Vysya Bank	Kotak Mahindra Bank	Year 2015

**Source:** Compiled by researchers from various Banking progress report of RBI

### LITERATURE REVIEW:

Many researchers have analysed pre & post-merger performance of merged firm. Researchers from all over the world has taken various industries & carried out research work on merger & firm's performance. The detailed literature reviews ae discussed for the merger happened in Canada, Dubai, Finland, France, Germany, Greece, Hungary, India, Ireland, Italy, Japan, Latvia, Lithuania, U.K & U.S.A. some researchers have made an argument that mergers and acquisitions result in negative outcome (Jensen, 1986) where as others argues that M & A improves the firme's performance (Weston et al, 2004). Here, this section contains the Theoretical background on merger and firm's financial performance background on merger and firm's financial performance.

Financial performance of firm refers to measurement that how well a firm can able to manage its assets for generations of revenue and profit. There are various measures to study the financial performance such as income, assets, and profit and profitability ratios. Researchers hance found mix outcome for merger with reference to financial performance. Many researchers have found that after merger financial performance has improved. (Jemes & Ramaswamy, 2003) had examined the post-merger financial performance of firms in U.S.A., covering a period of 1975 to 1990 & found that there is improvement in financial performance after merger. (Kumar and Rajib, 2007) evaluates the post-merger financial performance of various mergers happened during period of 1993 to 2004 in India which further revealed that the acquiring firms are tend to be more profitable than the target firms. Ying et al (2007) examines the post-merger financial performance of Taiwances baking industry considering duration of 1997 to 2006 & explores that majority of banks are operating at increasing returns to scale, indicating that scale economies can be achieve by increasing production scale. (Sinha & Gupta, 2011) also revealed that PAT and PBDITA have positively influenced after the merger. Further, in various research studies (Ikpefan 2012; Barai and mohanty 2012; Kumar and Fernandez 2012; Jahanzaib et al. 2013; Patel, 2014), empirical evidence for the improvement in financial performance after merger has been generalised.

In contrast to these studies, many researchers have found that mergers lead to negative financial performance. For Example, (Mogla and Singh, 2011) studies the financial performance of un-

group mergers and drawn and outcome that profitability decline is quite huge and in significant manner due to decline in operational inefficiency and poor asset utilization. (Isaac and Samuel, 2013) has analysed the post-merger financial performance of five firms listed in Ghana stock exchange & found that merger has a significant negative effect on the profitability of firms & does not able to generate value creation. Further, in a research studies (Odetayo et al, 2013 Muhammad et al 2014), empirical evidence for the deterioration in financial performance after merger has been generalized. Again, some researchers had found mix evidence on merger and reveal that post merger financial performance remains average. For example, (halkos and Tzeremes, 2010), Obaid et al (2010),

## **DATA SOURCES AND METHODOLOGY:**

### **Sample and Data Collection:**

The data used in this analysis are Banks involved in activity of or merger between 2004 to 2010. The sample period is selected to include both growing and downtrend period of global economy. Banks are identified from various issues of report on trend and progress issued by Reserve Bank of India & Indian Banker's association. The selection of Six banks year wise are : Oriental Bank of commerce (2004), Federal Bank (2006), IDBI (2006), Indian Overseas Bank (2007), HDFC Bank (2008) & ICICI Bank (2010).

Here, data are taken for both pre and post-merger period. For financial performance analysis, data of financial statements and ratios are collected for period of 10 years, i.e. 5 years before merger and 5 years after merger from money control.

### **Variable used:**

To carry out financial performance analysis, various variables such as total assets, interest earned, net profit net profit margin (%), return on long term fund (%) return on net worth (%), return on assets & earnings per share are taken. These variable are used in previous studies by various researchers such as (James & Ramaswamy, 2003) Ying et al (2007), Odetayo et al (2013), Muhammad et al (2014). Economic value added is also used as parameter. Many researchers (Banerjee, 2000), (Patel and Patel, 2012) have used EVA to measure financial performance of bank.

## **EMPIRICAL ANALYSIS AND FINDINGS :**

### **Financial Analysis:**

Few researchers have found that merger remain beneficial for in post-merger period to improve financial performance. For intense, (James & Ramaswamy, 2003) Ying et al (2007), (Sinha & Gupta, 2011), (Ik[efan 2012); barai and mohanty, 2012 and (Patel, 2014). According to few researchers such as (Halkos and Tzeremes, 2010), Obaid et al (2010), (Mogla and singh, 2011), (Isaac and Samuel, 2013), Odetayo et al (2013), Muhammad et al (2014) merger is lossful for financial performance. Again there are mix evidence found by some researchers, for intense, Knapp et al (2005), Obaid-ullah et al (2010), (Mishra and Leepsa, 2012).

Table 2 : Pre & Post-merger Mean score of financial parameters

Particulars	Oriental bank Of commerce		Federal Bank		IDBI Bank		Indian overseas Banks		HDFC Bank		ICICI Bank	
	Before Merger	After Merger	Before Merger	After Merger	Before Merger	After Merger	Before Merger	After Merger	Before Merger	After Merger	Before Merger	After Merger
Total assets	31,107	62,314	12617	38310	69,349	176,797	46,735	126,933	57,780	284,264	285,314	531,489
Interest Earned	3,031	4,285	1091	3074	5,768	11,962	3,753	11,569	3,805	22,956	20,350	38,572
Net Profit	326.8	621	94	442	515.05	979.95	518.75	1,071	878.57	4,202	2,883	8,185.59
Net Profit Margin	9.24	15.78	7.29	13.02	7.21	7.63	11.77	9.34	15.85	16.78	14.21	17.29
Return on long Term fund	140	78.13	162	69.66	88.14	135.32	156.84	133.78	67.20	70.92	66.28	72.69
Return on net worth	19.4	16	18.5	12.3	7.15	11.5	28.6	14.18	23	16.06	19.82	17.45
Return on Assets	91.3	200	206	246	105	130	40	131.7	138	327.9	237	250
Earnings per Share	91	72.7	37.4	29.2	7.81	12.3	10	17.9	28.6	50.38	32.3	55.44

Table 2 shows mean score of various financial parameters in pre and post-merger period.

Oriental bank of commerce has found significant increase in total assets, interest earned & net profit after merger, again, Net profit ratio, return on assets has increased whereas return on long-term fund & return on net worth has decreased. EPS has reduced from 91.37 Rs. To 72.74 Rs. Overall, merger remain average. Federal bank has witness uptrend in total assets, interest earned and net profit in post-merger period. Net profit ratio, return on assets shows positive trend but return on long-term frnd & return on net worth shows negative trend. EPS has decreased from 37.42 to 29.29 Rs. Reveals negative outcome form shareholders. Among all IDBI has maximum benefit from merger. Total assets, interest earned and net profit have increased. All financial ratios shows positive trend. EPS has increased from 7.81 Rs. To 12.32 Rs. In case of Indian overseas bank, after merger, value of total assets, interest earned and net profit has increased. All

ratios decreased except return on assets. EPS has risen from 10.06 Rs. To 17.98 Rs. Overall merger remain average for Indian overseas bank.

After merger, total assets, interest earned, net profit of HDFC Bank has grown positively. All ratios have shown uptrend except return on net worth. EPS has risen from 28.63 Rs. To 50.38 Rs. Overall, merger remain somewhat beneficial for HDFC bank . ICICI Bank has witness positive growth in assets, interest income and net profit after merger. All ratios have shown uptrend except return on net worth. EPS has shown a growth of 71.64% and increase from 32.3 Rs. To 55.44 Rs. Overall, merger remains beneficial.

**Economic Value Added Analysis:**

The concept of economic Value Added was introduced by a New York based consulting firm M/s Stren Stewart & Co in early 1980s. Indian Banking sector is now recognizing the importance of EVA. Attempts to easier true economic profit as it compares actual rate of return against the required rate of return. If NOPAT exceeds the capital charge (WACC), EVA is positive and if NOPAT is less than capital charge, EVA is negative.

EVA can be measured by following formula.

$$EVA = NOPAT - (WACC \times Invested\ capital) \dots\dots\dots (1)$$

Alternatively, it can be calculated using this formula also

$$EVA = (r - c) * K = NOPAT - C * K \dots\dots\dots (2)$$

Where,

C=Weighted average cost of capital

R= Return on invested capital

NOPAT=Net operating profit after tax

K=Invested Capital

There are 3 components of EVA, namely, (1) Net Operating Profit after Tax (Nopat) (2) WACC (3) Invested Capital.

(Stewart, 1991) defined NOPAT as the “profit derived from company’s operations after taxes but before financing costs and non-cash book keeping entries.

It can be calculated using this formula,

$$NOPAT = (Net\ Income - after-tax\ Non-Operating\ Gains + after-tax\ Non-Operating\ Losses + after-tax\ interest\ expense) \dots\dots\dots (3)$$

(Chandra, 2012) defines WACC are required rate of return for investors. WACC can be calculated using below given formula,

$$WACC = \frac{D}{D+E} K_d + \frac{E}{D+E} K_e \dots\dots\dots (4)$$

Where ,

D=Total Debt

E= Total Equity

$K_d$  = Cost of debt

$K_e$  = cost of Equity

Here, cost of equity is calculated using Capital Asset Pricing Model (CAPM). The CAPM was introduced by (Jack Treynor, 1961), (William F. Sharpe, 1964), (Jack Treynor, 1965), (John Lintner, 1965) and (Jan Mossin, 1966). The expected return on equity is calculated using below given formula.

$$R_j = R_f + b(R_m - R_f) \dots \dots \dots (5)$$

Where,

$R_j$  = Expected Return on Scrip j,

$R_f$  = Risk free rate of return,

$b$  = Beta representomg tje volatility of scrip j against market volatility

$R_m$  = Expected storck market return

Cost of Debit is calculated using this formula

$$\text{Cost of Debt} = (\text{Total Interest Expense} / \text{Begining Total Borrowings}) \times (1 - t) \times 100 \dots (6)$$

Invested capital represents the total investment in company. It can be calculated using below given formula.

$$K = D + E - M \dots \dots \dots (7)$$

Where,

$K$  = Invested capital

$D$  = total debt and leases

$E$  = total equity and equity equivalents,  $M$  = Non-operating cans and investments

Many researchers (Banerjee, 2000), (Patel and Patel, 2012) (Sura, 2013) have mede an attempt to evaluate performance of Bank using EVA. However, these researchers have evaluated performance of bank in relation to EVA in normal business conditions.

EVA is calculated by considering time duration of five years before erger and firve years after merger. N order to test performance of EVA in apre and post –merger period, a Null hypothesis is developed stated as below.

$H_0$ : Performance of EVA has improved in nor-merger period

Symbolically it can be shown as,

$$EVA_{AM} > EVA_{BM}$$

Table 3: Pre and Post-Merger Bank wise Economic Value added

Particulars	Oriental Bank of commerce		Federal Bank		IDBI		Indian overseas Bank		HDFC Bank		ICICI Bank	
	Pre Merger	Post Merger	Pre Merger	Post Merger	Pre Merger	Post Merger	Pre Merger	Post Merger	Pre Merger	Post Merger	Pre Merger	Post Merger
Economic value added	1046	1212	1132	1857	599	3805	1276.1	4529.8	3506.91	21027.9	2.599.3	15889.6
NPAT	3233	3947	1196.83	2389.58	6901.36	13852.2	3817.2	11696	3977.05	23911.8	24680.8	47311.1
Weighted average cost of capital	7.30%	4.60%	8.44%	10.54%	15.85%	18.88%	5.58%	5.68%	6.02%	6.79%	1.42%	14.93%
Invested capital	29955	59456	773.164	5054.82	39761.9	53218.2	45541	126162	7809.52	42449.1	76161.4	210457

Table 3 shows EVA in pre and post-merger situation for all banks. In case of oriental bank of commerce, Merger does not remain much beneficial. Post-merger financial performance was not remaining much significant. The economic value added was increased by 15.84% only on post-merger period. NOPAT was increase by 22% but there was decreased of 37% in WACC in post-merger period. Even though that EVA was not improved significantly as after merger the invested capital was increased by 99% i.e. almost double. So, merger of oriental bank of commerce with global trust bank does not remain much significant for financial performance. Oriental bank does not able to utilise its fund for profit generation, which leads to less growth in EVA as compare to NOPT and Invested capital. However, the hypothesis stating that performance of EVA has improved in post merger period is accepted.

EVA of federal bank was improved but not significantly. After merger, EVA was increase by 65%, NOPAT by 99%, WACC by 24.88% and invested capital by 553%. As invested capital was increase with high rate as compare to NOPAT, EVA does not increase significantly. This happens because of improper utilization of capital which federal bank has received after merger. Here, null hypothesis is accepted. Overall, merger remains average.

Among all the selected banks IDBI has highest growth in EVA. After merger, EVA of IDBI was increased with 535%. Again, NOPAT, WACC & invested capital was increased with 100%, 19% & 34% respectively. It further enhances that merger resulted in improved financial performance. Here null hypothesis is accepted. EVA of IDVI was increased with brisk growth in post-merger situation. Reason for this improvement in EVA was better utilization of assets and capital in post –merger situation. Reason for this improvement in EVA was better utilization of

assets and capital in post merger period. Overall, it includes that merger remain positive for IDBI. In case of Indian overseas bank, after merger EVA was improved considerably by 255% NOPAT, WACC and invested capital were improved with 206%, 2% and 177% respectively. Here EVA was improved significantly because of high growth in NOPAT as compare to invested capital in post merger period. This improvement was happening because of proper utilization of assets after merger. Again Null hypothesis is also accepted. Overall, it enhances that merger remain beneficial for Indian overseas bank.

Merger of HDFC Bank with centurion bank of Punjab has made significant improvement of 499.62% in EVA. As compare to pre merger, there was an increase of 499.62% in EVA in post merger period. NOPAT was increased by 501% whereas WACC was increased just by 12.76% invested capital was increased by 443.56% after merger. Improve financial performance.

Among all selected banks, only ICICI Banks has Negative EVA after merger. EVA of ICICI Bank has decreased by 32% after merger. This was happening because of high increase in WACC on 951% in post merger period. NOPAT and invested capital was increased by 91.69% & 176% respectively. After merger, portion of debt in total capital and cost of debt was increased which made very high increase in WACC. Again improper utilization of assets and fund has also reduced EVA of ICICI Bank. It further enhances that merger of ICICI bank with Bank of Rajasthan was Remain negative for financial performance. Here, Null hypothesis is rejected. Overall, merger remain negative for ICICI Bank in terms of financial performance.

## **CONCLUSION:**

Banks are going for merger due to various objectives such as market share gain, increase geographical coverage, value maximization, create financial synergy and so on. But few times to fulfill this objectives, acquirer banks do not consider few important parameters in target banks which lead to poor financial performance. Here, financial performance analysis is performed by comparison of mean score of various financial parameters and comparison of EVA in pre and post merger situation. From the analysis of mean source, it was revealed that, IDBI has maximum benefit from merger whereas only ICICI Banks has loss from merger. For rest of the banks, merger remain somewhat beneficial. Economic value added is used as one of the financial performance evaluation parameter. After merger, EVA of all banks has improved except ICICI bank. ICICI Banks does not able to utilize its assets and capital in proper manner which leads to decrease in EVA after merger. After merger, IDBI Bank has utilized its capital and assets efficiently which leads to highest increase in EVA. Rest of the banks EVA has grown at low rate reflecting inefficient use of resources after merger. Overall, there are positive, negative and mix evidence on merger and financial performance, which is again supported by (Halkos and Tzeremes, 2010), Obaid-ullah et al (2010) & Ikpefan et al (2012) in their studies.

Researchers can undertake further studies in area of merger and acquisition with respect to evaluation of financial performance. Moreover, it can be studied that does valuation of target bank done by acquire bank has impact on profit and return for acquire bank or not. Study has practical implications for managerial cadre. Top management of bidder bank can have a proper analysis of past data and they can consider financial performance rather than just considering few objectives before making merger deal. Doing such practice can make merger more successful.

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As shareholders are one of the important stake holders. Banks managers can decide merger share exchange ratio which motivate the shareholders to invest more in bank securities after merger.

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