IMPACT OF MERGERS AND ACQUISITIONS ON FINANCIAL PERFORMANCE: EVIDENCE FROM INDIAN BANKING INDUSTRY

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ABSTRACT

Mergers and acquisitions (M&As) have become an essential mechanism of Corporate Restructuring. In the past two decades, there has been an upsurge in the volume of M&A activity in diverse sectors such as finance, pharmaceuticals, telecom, FMCG and banking sector. The banking industry has also witnessed its own share of M&A activity. The paper is an attempt to analyze the effect of mergers on the pre and post merger performance of Indian Banks. Various ratios along with event study methodology have been used to find out the effect of mergers and acquisitions on the performance of acquiring firms for both pre and post-acquisition periods. The results provide no statistically significant evidence of any impact of mergers and acquisitions on the firm profitability as measured through various ratios.

Keywords : Mergers & Acquisitions, Restructuring, Banking Industry, Event Study

INTRODUCTION

Corporate restructuring has been one of the most important phenomena in many industries. Firms use M&As as a strategic initiative for the growth and expansion of their businesses and products. The Indian banking industry has been witnessing an unparalleled level of restructuring through mergers and acquisitions. This rise in M&A activity is based on the conviction that there would be gains through expense reduction, increase in market power, reduced volatility of earnings, and economies of scale. If consolidation does, in fact, lead to value gains, then shareholder wealth can be increased. On the other hand, if merging entities do not lead to the promised positive effects, then mergers may lead to a less profitable and valuable entity.

Across the globe, many researchers have been conducted to find the effect of diversity of culture on the success or failure of merged firms (Weber, 2012; Frankema, 2012). Weber & Tarba (2012) emphasized on the effect of cross cultural management as an important tool for the success and failure of mergers and acquisitions. Frankema (2001) studied about how differences in culture and structures affect the success of the merged firms. It is further argued that mutual trust strengthened the cultural differences. It can be developed by open dialogues, proper communication, monitoring and handling grievances. Du, Liu, Bao, Huang (2013) found that related cross border merger and acquisitions firms performed better than unrelated diversification.

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In the related mergers category, bank mergers have been a common phenomenon in developed countries that has resulted in valuable banking industry. Since 1969 till date, there have been as many as 34 mergers and amalgamations in banking and finance sector. There were at least 25 cases where private sector banks merged with the PSBs and some of them were induced mergers while several others were voluntary driven mostly by the weak financials of the banks that merged. Post-1999, however, even healthy banks were merged driven by the business and commercial considerations. Post reforms private sector has seen giant size banks taking shape in the private sector (Raju, 2015).

REVIEW OF LITERATURE

Mergers, acquisitions, takeover and amalgamations have become essential component of corporate restructuring. An extensive study has been conducted on the mergers and acquisitions in different industries, not only in India (Beena, 2000; Pawaskar, 2001) but also in the world (Ruback ,1992; Ikeda,1997). The results show the mixed response to the effect of mergers and acquisitions on the profitability of the companies.

A number of the research studies conducted have found that the firms were in a profitable position after mergers (Hitt, Harrison & Best,1998; Chevalier, 2004; Rao & Sanker,1997). Healy, Palepu, and Ruback (1992) studied 50 US companies with respect to mergers and acquisitions from the time period 1979 to 1984. The results showed that the firms performed better and showed profitability in terms of cash flow performance. Aggarwal (2012) analysed the effect of mergers and acquisition on the pharmaceutical industry. Various indexes have been used to measure the profitability like Cost of production, revenue expenses, EPS etc. The result shows that there is profitability after merger and acquisitions. Ma, Pagán, Chu & Soydemir (2012) analysed about the effect of mergers and acqusitions on the merged firms. The paper studied about the ten emerging markets of Asia for the last 12 years. The results show that mergers and acqusitions have positive effect on the performance of merged firms. Awolusi (2012) studied about the hard and soft factors in success and failure of Nigerian banking industry after mergers and acquisitions. 19 Nigerian banks have been taken under study. He concluded that mergers and acquisition have significant effect on business performance measures

Few of the other research studies have indicated a mixed response. Ikeda (1997) analysed the Japanese firms after mergers and acquisitions. 43 manufacturing companies of Japan were studied. The results indicated a mixed response. In some companies, there is profitability in terms of return on equity and return on total assets where as in some companies there is a loss after mergers and acquisitions. Pawaskar (2001) analysed the effect of mergers and acquisition on 36 firms from the time period 1992-95. Various ratios have been used to find out the profitability. The result shows that after mergers the companies performed better. But when the profits of the merged firms were compared to the similar companies, it did not show much profit.

According to some studies, mergers and acquisitions have no effect on the performance and profitability of the companies (Harbir & Montgomery, 1987; Jarrell, Brickley & Netter, 1988; Datta, Pinches & Narayan, 1992; Shleifer &Vishny, 1994; Agrawal & Jaffe, 2000; Cartwright & Schoenberg, 2006). Martynova (2006) studied about the profitability performance of companies in Europe after mergers and acquisition. He concluded that the profitability does not increases rather there was a significant decrease in the profitability of the firms after mergers and acquisition. Further Weston (1961) studied the pre and post-merger performance of conglomerate firms. He found that their earnings significantly underperformed in the sample group. Even after 10 years, there were no significant differences in performance of the merged company. Ghosh (2001) examined the effect of corporate acquisition on the operating cash flow performance of the firm. He concluded that the merged firms did not show any evidence of improvements in the operating performance after acquisitions. Beena (2000) tried to analyse the effect of mergers and acquisition in Indian manufacturing sector. 115 firms have been taken under study from the time period 1995 to 2000. Financial ratios and t test have been used to check the profitability. The result shows there was no improvement in the profitability of the firms after mergers and acquisitions. Kaur (2002) analysed the results of 20 companies from the time period 1997 to 2000. She studied about the performances of these companies before and after mergers. The result shows there was no significant change in the profits. Instead there was a decline in the profits of the companies after merger.

The perusal of the literature revealed that there is no conclusive evidence on as to whether Mergers and acquisitions have any positive and negative impact on the firm's performance. There is a contradiction in the result of the studies. This particular study basically tends to get a first hand evidence by testing this notion of the impact of M&As on performance in the banking industry in India.

RESEARCH OBJECTIVE AND HYPOTHESIS

The objectives of the study framed are :

- To analyze the effect of mergers on the performance of Indian Banks with reference to their profitability and market presence pre and post merger.
- To examine the announcement effects of mergers using event study.

To carry on with the objectives, the following seven hypotheses have been formulated:

- H1o: There is no significant difference between the pre & post -merger interest spread.
- $H1_1$: There is significant difference between the pre & post -merger interest spread.
- H2o: There is no significant difference between the pre & post -merger Adjusted Cash Margin.
- $H2_1$: There is significant difference between the pre & post -merger Adjusted Cash Margin.
- H3o: There is no significant difference between the pre & post -merger Net Profit margin.
- $H3_1$: There is significant difference between the pre & post -merger Net Profit margin.
- H4o: There is no significant difference between the pre & post -merger Return on Long term funds.
- $H4_1$: There is significant difference between the pre & post -merger Return on Long term fund.
- H5o: There is no significant difference between the pre & post -merger Return on Net worth.
- $H5_1$: There is significant difference between the pre & post -merger Return on Net worth.
- H6o: There is no significant difference between the pre & post -merger Adjusted Return on Net worth.
- $H6_1$: There is significant difference between the pre & post -merger Adjusted Return.
- H7o: There is no difference in Return on Assets excluding Revaluations of the merged banks before and after announcement period.
- $H7_1$: There is difference in Return on Assets excluding Revaluations of the merged banks before and after announcement period.
- H8o: There is no difference in raw returns of the merged banks before and after announcement period.
- $H8_1$: There is difference in raw returns of the merged banks before and after announcement period.

RESEARCH METHODOLOGY

Data Collection

The study is primarily based on secondary data. The data of all the banks which have undergone the mergers and acquisitions have been collected using the PROWESS software from 2000-2014. Newspapers, magazines, investment web sites, web sites of the BSE and NSE (for names of delisted companies), SEBI's web site (for details of companies making open offers for takeovers) has also been used to collect data.

Table 1 shows the list of banks having undergone M&As during the time period from 2000-2014. The data from a total of 16 banks have been collected. But due to unavailability of complete data for seven banks, the present study is based on the analysis of only nine banks.

Table 1
Merging Banks under Study

S. NO.	Name of Bank Merged	Merger bank	Date of Announcement
1.	Times Bank Ltd.	HDFC Bank Ltd.	26-02-2000
2.	Bank of Madura	ICICI Bank	11-12-2000
3.	ICICI Bank	ICICI Ltd.	25-10-2001
4.	Benaras State Bank Ltd.	Bank of Baroda	20-07-2002
5.	Nedungadi Bank Ltd	Punjab National Bank	01-02-2003
6.	South Gujarat Local Area Bank ltd.	Bank of Baroda	27-02-2004
7.	Global Trust Bank Ltd.	Oriental Bank of Commerce	24-07-2004
8.	IDBI Bank	IDBI Ltd.	20-01-2005
9.	United Western Bank Ltd.	IDBI Ltd.	02-04-2005
10.	The Ganesh Bank of Kurd. Ltd	The Federal Bank Ltd.	02-09-2006
11.	Sangli Bank Ltd.	ICICI Bank Ltd.	12-09-2006
12.	Lord Krishna Bank Ltd.	Cent. Bank of Punjab Ltd.	29-08-2007
13.	Centurion Bank of Punjab	HDFC Bank	20-05-2008
14.	Bank of Rajasthan	ICICI Bank	18-05-2010
15.	SBI Commercial bank	International bank ltd.	21-07-2011
16.	ING Vyasa	Kotak Mahindra bank	20-11-2014

Data source: Parekh (2010)"Industry structure: M&A in Indian Banking" ERNST & YOUNG Quality In Every We Do" and Kalra (2013) "Are Indian Banks Going up a blind alley" Global Business Review

Statistical Tools

Various ratios have been used to analyze the performance of banks before and after mergers which is given in Table 2. Interest spread ratio, adjusted cash margin ratios, Net profit margin, return on long term fund, return on Net worth, Adjusted Return on Net Worth, Return on assets excluding revaluation are used to analyze the performance.

Table 2
Accounting Ratios

S. No.	**Ratios**	**Description**
1.	Interest Spread	Interest yield on earning assets - interest rates paid on borrowed funds
2.	Adjusted Cash Margin (%)	Cash flow from Operating Activities/ Net Sales
3.	Net profit Margin	Net Income/ Sales revenue
4.	Return on Long term fund (%)	Net profit after interest and tax/ Long term shareholder funds
5.	Return on Net Worth or Return on Equity (%)	Net income / Shareholders Equity
6.	Adjusted Return on Net Worth(%)	Net Income/ average share Holders equity
7.	Return on Assets excluding Revaluations	Net income/ Total Average Assets

Event Study Methodology

The market model assumes a linear relationship between the return of the security to the return of the market portfolio. The BSE 500 Sensex had been taken as the benchmark index. The stock returns had been regressed to BSE 500 Sensex for a period of 30 trading days i.e., 15 trading days before and 15 trading days after the announcement date. The raw return to security before and after the announcement (including announcement day) of the merger has been computed with the following formula given below :

$$R_{i,t} = \frac{MP_{i,t} - MP_{i,(t-1)}}{MP_{i,(t-1)}}$$

Where, t = day measured relative to merger announcement day (t=0)

$R_{i,t}$ = Raw return on security " i " for day " t "

$MP_{i,t}$ = closing price of security " i " on day " t "

$MP_{i,(t-1)}$ = closing price of security " i " on day "t-1"

Event Study and Date of Announcement

For the purpose of the study, the first date of media announcement of the merger has been taken to be day zero. The first possible date when the news of the merger was made public has been used. The same has been obtained from the information available on the websites of Bombay stock exchange and the respective banks.

Analysis of Data and Discussion

The analysis has been carried out in two phases: First phase comprises of calculation of various relevant ratios and the second phase analyses the impact of banking merger announcements on the share prices using event study methodology.

Interest spread

The interest spread for the pre and post- merger has been calculated by taking the average of three consecutive years. Table 3 shows the interest spread in the sampled banks.

Table 3
Pre and Post Merger Interest spread

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% Change
Punjab National Bank	5.35	4.58	-14.393
Bank of Baroda	5.37	4.38	-18.436
Oriental Bank of Commerce	4.48	3.46	-22.768
IDBI Ltd.	2.11	1.95	-7.583
IDBI Ltd.	2.11	1.95	-7.583
The Federal Bank Ltd.	4.88	6.04	23.770
ICICI Bank Ltd.	3.33	3.53	6.006
HDFC Bank	5.37	6.65	23.836
ICICI Bank	3.53	6.69	89.518

Source: Money Control

Punjab National Bank, Bank of Baroda, Oriental Bank of Commerce, IDBI Ltd, IDBI ltd. have shown the negative values after the merger. It indicates that mergers and acquisitions have not shown any positive effect on these banks where as banks The Federal Bank Ltd., ICICI Bank Ltd., HDFC Bank, ICICI Bank have shown positive impact on the interest spread as the values have tremendously increased after the mergers.

Table 4
t-Test (Interest Spread)

t-Test: Paired Two Sample for Means		
	5.35	*4.58*
Mean	3.8975	4.33125
Variance	1.784078571	3.8006125
Observations	8	8
Pearson Correlation	0.699941649	
Hypothesized Mean Difference	0	
Df	7	
t Stat	-0.880936466	
P(T<=t) one-tail	0.203789723	
t Critical one-tail	1.894578605	
P(T<=t) two-tail	0.407579447	
t Critical two-tail	2.364624252	

As indicated by Table 4, the t-critical value is 2.4 which is greater than the t-value i.e. -0.88, the null hypotheses H1o is accepted. Thus, there is no significant difference between the pre & post –merger interest spread.

Cash Flow Margin (%):

The Cash Flow Margin measures the effectiveness of how efficiently a company converts its sales to cash. Table 5 indicates that the cash flow margin in the banks HDFC Bank, ICICI Bank Ltd. and The Federal Bank Ltd. has become negative after the merger. While for ICICI Bank, IDBI Ltd., Oriental Bank of Commerce, Bank of Baroda, Punjab National Bank have shown positive impact on the Cash flow margin as the values have tremendously increased after the mergers.

Table 5
Pre and Post- Merger Adjusted Cash Margin(%)

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% Change
Punjab National Bank	8.05	13.41	66.583
Bank of Baroda	8.76	13.05	48.973
Oriental Bank of Commerce	10.56	22.03	108.617
IDBI Ltd.	9.82	11.13	13.3401
IDBI Ltd.	9.82	11.13	13.3401
The Federal Bank Ltd.	14.62	9.77	-33.174
ICICI Bank Ltd.	18.96	11.85	-37.5
HDFC Bank	21.60	15.02	-30.463
ICICI Bank	11.85	15.59	31.561

Source: Money Control

Table 6
t-Test (Adjusted Cash Margin)

t-Test: Paired Two Sample for Means		
	Pre	*Post*
Mean	12.67	13.66
Variance	22.63	13.41
Observations	9	9
Pearson Correlation	-0.058	
Hypothesized Mean Difference	0	
Df	8	
t Stat	-0.482939517	
P(T<=t) one-tail	0.32103872	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.64207744	
t Critical two-tail	2.306004135	

Table 6 shows that the value of t-critical is 2.31 which is greater than t- value is -0.48, which suggests the acceptance of null hypotheses H2o. That means there is no significant difference between the pre & post-merger adjusted cash margin.

Net Profit Margin

Shareholders look at net profit margin closely because it shows how good a company is at converting revenue into profits available for shareholders.

Table 7
Pre and Post- merger Net Profit Margin

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% Change
Punjab National Bank	7.09	11.69	64.88011
Bank of Baroda	7.53	10.89	44.62151
Oriental Bank of Commerce	9.24	16.34	76.83983
IDBI Ltd.	5.95	8.87	49.07563
IDBI ltd.	5.95	8.87	49.07563
The Federal Bank Ltd.	13.44	8.04	-40.1786
ICICI Bank Ltd.	14.70	10.35	-29.5918
HDFC Bank	15.63	12.98	-16.9546
ICICI Bank	10.35	14.57	40.77295

Source: Money Control

Table 7 depicts that the net profit margin in the HDFC Bank, ICICI Bank Ltd. and The Federal Bank Ltd. have shown the negative values after the merger. It means that mergers and acquisitions have not shown any positive mark after mergers whereas banks like ICICI Bank, IDBI ltd., IDBI Ltd., Oriental Bank of Commerce, Bank of Baroda, Punjab National Bank have shown positive impact on the Net Profit Margin as the values have increased tremendously after the mergers.

Table 8
t-Test (Net Profit Margin)

t-Test: Paired Two Sample for Means		
	Pre-merger	*Post-merger*
Mean	10.35	11.36
Variance	14.89	8.91
Observations	8	8
Pearson Correlation	0.144	
Hypothesized Mean Difference	0	
Df	7	
t Stat	-0.63	
P(T<=t) one-tail	0.273	
t Critical one-tail	1.89	
P(T<=t) two-tail	0.546088391	
t Critical two-tail	2.364624252	

The results in Table 8 show that the value of t-critical is 2.36 whereas the t- value is -0.634 which results in acceptance of null hypotheses H3o. Thus, there is no significant difference between the pre & post –merger net profit margin.

Return on Long Term Fund (%)

The ratio shows how efficiently the long term funds supplied by the shareholders have been used.

Table 9
Return on Long Term Fund (%)

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% change
Punjab National Bank	187.06	119	-18.4451
Bank of Baroda	120.14	97.98	-36.8634
Oriental Bank of Commerce	140.79	88.89	-25.54
IDBI Ltd.	104.62	77.90	-25.54
IDBI ltd.	104.62	77.90	111.7495
The Federal Bank Ltd.	81.28	172.11	-13.6854
ICICI Bank Ltd.	77.82	67.17	-18.4451
HDFC Bank	61.91	67.24	8.609272
ICICI Bank	67.17	46.70	-30.4749

Source: Money Control

Table 9 indicates that return on long term funds ratio in the Punjab National Bank, Bank of Baroda, Oriental Bank of Commerce, IDBI Ltd., The Federal Bank Ltd., ICICI Bank Ltd. and ICICI Bank Ltd. have shown the negative values after the merger. It means that mergers and acquisitions have not shown any positive mark as compared to mergers whereas banks IDBI ltd. and HDFC Ltd. have shown positive impact on the long term funds as the values have tremendously increased after the mergers.

Table 10
t-Test (Return on Long Term Fund)

t-Test: Paired Two Sample for Means		
	Pre	*Post*
Mean	105.04	90.54
Variance	1604.18	1356.53
Observations	9	9
Pearson Correlation	0.318	
Hypothesized Mean Difference	0	
Df	8	
t Stat	0.967	
P(T<=t) one-tail	0.180	
t Critical one-tail	1.859	
P(T<=t) two-tail	0.36	
t Critical two-tail	2.306	

Table 10 shows t- value (-0.96) is less than t-critical (2.36) and hence, we accept the null hypotheses H4o i.e. there is no significant difference between the pre & post –merger return on long term fund.

Return on Net Worth(%):

Return on net worth is an indicator of a firm's ability to generate profits. The return on net worth for ICICI Bank Ltd., The Federal Bank Ltd, HDFC Bank have shown negative values after the merger. It means that mergers and acquisitions have not shown any positive mark after merger whereas for Punjab National Bank, Bank of Baroda, Oriental Bank of Commerce, IDBI Ltd., IDBI Ltd., and ICICI Bank Ltd. The impact was positive on the long term funds as the values have tremendously increased after the mergers

Table 11
Return on Net worth (%)

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% Change
Punjab National Bank	22.003	23.17	2.555249
Bank of Baroda	14.11	14.48	11.50523
Oriental Bank of Commerce	19.46	21.99	19.12944
IDBI Ltd.	7.06	8.73	19.12944
IDBI ltd.	7.06	8.73	10.49096
The Federal Bank Ltd.	17.32	19.35	-82.2222
ICICI Bank Ltd.	18.04	9.90	2.555249
HDFC Bank	23.32	14.28	-63.3053
ICICI Bank	9.90	9.28	-6.68103

Source: Money Control

Table 12
t-Test (Return on Net worth)

t-Test: Paired Two Sample for Means		
	Pre	*Post*
Mean	15.363	14.434
Variance	38.05	33.72
Observations	9	9
Pearson Correlation	0.725	
Hypothesized Mean Difference	0	
Df	8	
t Stat	0.626	
P(T<=t) one-tail	0.274	
t Critical one-tail	1.85	
P(T<=t) two-tail	0.548	
t Critical two-tail	2.306	

Table 12 indicates that the value of t-Critical two-tail is 2.3 whereas the T- value is 0.6, it means t-value < t-critical, we accept the null hypotheses H5o. Thus, there is no significant difference between the pre & post –merger return on net worth.

Adjusted Return on Net worth (%)

Adjusted Return on Net worth is a valuation method for companies, which starts with the book value and add value through unrealized capital gains, capital surplus and reserves.

Table 13
Adjusted Return on Net Worth

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% change
Punjab National Bank	20.16	21.44	6.349206
Bank of Baroda	13.34	14.75	10.56972
Oriental Bank of Commerce	18.43	23.82	29.24579
IDBI Ltd.	6.65	6.99	5.112782
IDBI ltd.	6.65	6.99	5.112782
The Federal Bank Ltd.	15.61	10.29	-34.0807
ICICI Bank Ltd.	18.04	9.55	-47.0621
HDFC Bank	16.30	14.26	-12.5153
ICICI Bank	9.55	9.19	-3.76963

Source: Money Control

The Federal Bank Ltd., ICICI Bank Ltd., HDFC Bank, ICICI Bank Ltd. has shown the negative results after the merger. It means that mergers and acquisitions with their respective banks have not shown any positive mark after merger whereas Bank of Baroda, Punjab National Bank, Oriental Bank of Commerce, Bank of Baroda, IDBI Ltd. and IDBI ltd. have shown positive impact on the long term funds as the values have tremendously increased after the mergers (Table 13).

Table 14
t-Test (Adjusted Return on Net Worth)

t-Test: Paired Two Sample for Means		
	pre	*Post*
Mean	13.8	13.031
Variance	26.23	37.36
Observations	9	9
Pearson Correlation	0.75335984	
Hypothesized Mean Difference	0	
Df	8	
t Stat	0.612710004	
P(T<=t) one-tail	0.278539872	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	0.557079745	
t Critical two-tail	2.306004135	

The results in Table 14 indicate that the value of t-Critical two-tail is 2.*3* whereas the T- value is 0.6, it means t- value < t-critical, the null hypotheses H6o is accepted. Thus, there is no significant difference between pre & post –merger adjusted return on net worth.

Return on Assets Excluding Revaluations

This ratio is an indicator of how profitable a company is relative to its total assets. It provides an idea of how efficiently management uses its asset to generate the earnings.

Table 15
Return on Assets Excluding Revaluations

Name of Acquiring Bank	Pre-merger (3 years)	Post-merger (3 years)	% Change
Punjab National Bank	62.51	188.41	201.4078
Bank of Baroda	130.31	194.07	48.92948
Oriental Bank of Commerce	91.37	172.74	89.05549
IDBI Ltd.	99.61	87.96	-11.6956
IDBI Limited	99.61	87.96	-11.6956
The Federal Bank Ltd.	183.02	251.88	37.6243
ICICI Bank Ltd.	183.52	377.65	105.7814
HDFC Bank	172.17	379.67	120.5204
ICICI Bank	377.65	488.44	29.33669

Source: Money Control

The Return on Assets Excluding Revaluations in IDBI Ltd. and IDBI Limited have shown the negative values after the merger. It means that mergers and acquisitions with their respective banks have not shown any positive results after merger whereas banks Punjab National Bank, Bank of Baroda, Oriental Bank of Commerce, The Federal Bank Ltd, ICICI Bank Ltd., HDFC Bank, and ICICI Bank have shown positive impact on the long term funds as the values have tremendously increased after the mergers.

Table 16
t-Test (Return on Assets Excluding Revaluations)

t-Test: Paired Two Sample for Means		
	Pre	*Post*
Mean	155.53	247.64
Variance	8851.58	19415.06
Observations	9	9
Pearson Correlation	0.85	
Hypothesized Mean Difference	0	
Df	8	
t Stat	-3.559	
P(T<=t) one-tail	0.0037	
t Critical one-tail	1.85	
P(T<=t) two-tail	0.007	
t Critical two-tail	2.306	

Table 16 clearly shows that value of t-Critical two-tail is 2.3 whereas the T- value is -3.6, it means t- value < t-critical, we accept null hypotheses H7o. That indicates no significant difference between the pre & post –merger return on assets excluding revaluations.

Event Study

The present study uses 16 banks for event study analysis. The results of the analysis are tabulated and discussed in Table 17.

Table 17
Average of Raw return of security

BANKS	PRE-MERGER	POST- MERGER
HDFC Bank Ltd.	-0.004	0.009
ICICI Bank	0.014	-0.008
ICICI Ltd.	0.018	-0.003
Bank of Baroda	-0.009	-0.006

Punjab National Bank	-0.004	0.0156
Bank of Baroda	-0.0083	0.0120
Oriental Bank of Commerce	0.006	-0.007
IDBI Ltd.	0.0008	-0.005
IDBI Limited	0.0042	0.008
The Federal Bank Ltd.	0.002	0.0215
ICICI Bank Ltd.	-0.002	0.0099
Cent. Bank of Punjab Ltd.	-0.002	-0.014
HDFC Bank	-0.002	-0.0025
ICICI Bank	-0.003	-0.005
International bank ltd.	-0.0034	-0.051
Kotak Mahindra bank	-0.007	-0.003

Table 17 includes the calculation of average of raw return of security. Under this the closing price of the current day and the previous day is being used to calculate the raw return of security. The closing price is taken for 30 days i.e., -15 days of merger (pre- merger) to +15 days of merger (post-merger).

Table 18
t- Test (Average of Raw return of security)

t-Test: Paired Two Sample for Means		
	Pre-merger	post-merger
Mean	1.7125E-05	-0.002
Variance	5.89377E-05	0.00027
Observations	16	16
Pearson Correlation	-0.04	
Hypothesized Mean Difference	0	
Df	15	
t Stat	0.399	
P(T<=t) one-tail	0.347	
t Critical one-tail	1.753	
P(T<=t) two-tail	0.695	
t Critical two-tail	2.13	

The t- value is 0.399 and t critical is 2.13 i.e., t critical > t- value. Thus we accept null hypothesis H8o. It means there is no significant difference between the raw returns of the merged banks before and after announcement period (Table 18).

CONCLUSION

The study has been undertaken to analyze the performance of the banks that had gone for structural changes during the post financial sector reform period in India. It also examines the announcement effects of merger using event study. Further it has looked into the financial performance of both public and private sectors banks that have undergone mergers during the period 2000-2014. Keeping in line with the results of various studies in different sectors, Harbir & Montgomery, 1987; Jarrell, Brickley & Netter, 1988; Datta, Pinches & Narayan, 1992; Shleifer &Vishny, 1994; Agrawal & Jaffe, 2000; Beena, 2000; Ghosh, 2001; Kaur, 2002 Cartwright & Schoenberg, 2006; Martynova, 2006; our results indicate no significant effect of M&As on the financial profitabilty of the firms in banking sector particularly. For not even single financial measures under study, the results indicate significant difference between pre and post merger profitability of the banks undergoing mergers. Even the average raw returns of security do not show any evidence of any improvement post merger.

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