Pre and Post Merger Analysis of State Bank of India with its Associate Banks

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Abstract- This study attempts to evaluate the effect of merger on the performance of State bank of India by considering its pre and post merger performance. It aimed to determine the performance of the bank by using 25 ratios, of which 14 are related to Market performance and 11 are profitability ratios, along with other tools such as correlation and paired sample t-test. Finally, the study has concluded a negative effect of

Banking sector has embarked its unique role towards the contribution in the development of nation. To withstand with global competition banks are using different strategies. One of them is Merger and Acquisitions. It is believed that there is always a synergy effect. Two separate entities together can achieve more as compared to their individual efforts. Indian Banking industry has witnessed a recent

merger on the performance of bank. It also concluded no significant difference in pre and post merger performance of the bank.

Key Words: Financial Ratios, Profitability, Merger and Acqusition, Market Efficiency, Correlation

1 Introduction

Mega- Merger of SBI with its associate banks and Bharti Mahila Bank.

The Merger and Acquisition phenomenon is not a novel one for State Bank of India. As when roots of the bank are traced, it is found that it descends from merged entity named Imperial Bank of India. Bank of Calcutta, Bank of Madras and Bank of Bombay were merged and Imperial



Bank of India was formed. Then in 1955, Government of India with RBI taking a stake of 60%, took control over it and gave it a new name 'State bank of India'. In 1959, by passing the 'State Bank of India (Subsidiary banks) Act', eight banks belonged to princely states, were made subsidiaries of SBI. Not only had these, SBI acquired local banks also. The first bank it acquired in 1969 was Bank of Bihar, established in 1911, having 28 branches. Then in 1970, it acquired National Bank of Lahore (1942). In 1975, SBI acquired Krishnaram Baldeo Bank (1916). In 1985, it acquired Bank of Cochin with 120 branches.

The plan of merging associate banks with SBI was started in 2008 when Bank of Saurashtra was merged with SBI. Then in next year 2009, State Bank of Indore was merged to SBI. The mega merger was approved by cabinet in 2016. As a result, State Bank of Bikaner & Jaipur, State Bank of Patiala, State Bank of Hydrabad, State Bank of Travancore, State Bank of Mysore and Bhartiya Mahila Bank were merged with SBI with effect from 1st April 2017. This merger made SBI to enter into the league of top 50 banks. Its asset base is five times larger than the second largest bank (ICICI Bank).

However, along with the advantages, the merger move is not free from severe challenges. It needs to address issues like overlapping of branches, management difficulties as it is too big to manage, the existence of huge bad loans, people side issues like employee delight, morale and career etc.

2 REVIEW OF LITERATURE

There has been a lot of research done on M & A. Taking a dip into the reservoir of the literature, it has been found that the strategy gave outcomes as per in its own fashion. Jeelanbasha and Arun (2016) conclude an increase in the profitability in post merger period as there was fall in operating expenses and growth in

non-interest income. Gupta (2015) study on "Merger and Acquisitions in the Indian Banking Sector: A Study of Selected Banks" has examined the financial performance of the banks in India. The results showed the improvement and positive impact of merger and acquisitions on the financial performance of the banks. Singh and Gupta(2015) "Impact of Merger and Acquisitions on Productivity and Profitability of Consolidation Banking Sector in India" concluded positive impact on the profitability and productivity of the banks in India.

On other hand, Sreemathi & Tharmalingam (2018) found decline in net profit as well as stability in "a study on financial position of SBI after merger of associate banks". Farman Ali & Anshul Sharma (2019) has stated in their research paper "Pre-merger and Post-merger operating performance of SBI" that bank showed decline in the performance after merger for a short time period. But after two years of merger, bank has increased its efficiency as well as profitability.

3. Objectives of Study

- To compare the market price related performance of SBI pre and post merger
- To compare overall profitability position related performance of SBI pre and post merger

4. Hypothesis of Study

H1: There is insignificant difference in pre and post merger market price related performance of SBI.

H2: There is insignificant difference in pre and post merger overall profitability position related perfor-

mance of SBI.

5. Research Methodology

This research is based on secondary data collected from websites such as moneycontrol, bank's official websites, RBI, SEBI etc. The pre and post merger performance of the SBI is analysed, using market price ratios and profitability ratios. The year of merger (2017) has been taken as base year. And for ease of making comparison 2 years data of pre merger (2015 and 2016) and 2 years of post merger (2018 and 2019) is taken into account. To test the significant difference in performance, t-test is employed to the research study. Also correlation has been observed between pre and post merger.

6. Results & Discussion

This research paper examined the pre and post merger performance of SBI. In this case analysis, performance is analyzed on basis of change in percentage of pre and post merger means of banks to check if merger has positively or negatively affected. Then significance of differences on pre and post merger performances of bank has been analyzed on basis of t- test. The performance analysis is based on two major groups of ratios, i.e. Market Price and Profitability ratios.

1. Analysis of market price related performance of SBI pre and post merger on basis of change in percentage of pre and post merger means: On analyzing the Market price related performance of the bank, it has been found that there has been decrease in mean value to a greater extent in case of Basic EPS, Dividend/Share, Diluted EPS, Book Value [Incl. Reval Reserve]/Share, Net Profit/Share and Earnings Yield ratio. Also, a decline has been reported in case of Price to Book Value and Price to Sales ratio also. However, other ratios like Cash EPS, Book Value [Excl. Reval. Reserve]/Share, Operating Revenue / Share, Enterprise Value, EV Per Net Sales, and Retention Ratios showed increase in the performance of the bank. The details of all cases are in following table no. 1

Table 1: Analysis on basis percentage change in means of Market price ratios of SBI

Sr. No.	Market Price Ratios	Mean (Pre	Mean (Post	Mean (% ↑ or
		Merger)	Merger)	↓)
1.	Basic EPS (Rs.)	15.265	-3.350	-121.946
2.	Dividend/Share (Rs.)	15.265	-3.350	-121.946
3.	Diluted Eps (Rs.)	17.025	-1.550	-109.104
4.	Cash EPS (Rs.)	1.789	2.326	29.989
5.	Book Value [Excl. Reval Reserve]/Share	1.789	2.465	37.768



	(Rs.)			
6.	Book Value [Incl. Reval Reserve]/Share (Rs.)	3.050	.000	-100
7.	Operating Revenue / Share (Rs.)	2.077	2.596	24.991
8.	Net Profit/Share (Rs.)	15.185	-3.185	-120.975
9.	Enterprise Value (Rs. Cr)	1.9703	3.282	66.597
10.	EV Per Net Sales (X)	12.445	14.175	13.901
11.	Price To Book Value (X)	1.300	1.225	-5.769
12.	Price To Sales (X)	1.115	1.095	-1.793
13.	Retention Ratios (%)	79.745	1.00002	25.399
14.	Earnings Yield (X)	.0700	0150	-121.429

Source: Author's calculation- AGM report of SBI

2. Analysis of profitability related performance of SBI pre and post merger on basis of change in percentage of pre and post merger means: It is apparent from table no. 2 that there has been decline in Net Profit Margin, Return on Assets, Return on Equity / Networth, Net Interest Margin, Interest Income/Total Assets, Non-Interest Income/Total Assets, Interest Expenses/Total Assets. It showed increase in mean percentage in case of Operating Profit Margin, Cost to Income and Operating Profit/Total Assets. There is no change in mean percentage in case of Operating Expenses/Total Assets.

Table 2: Analysis on basis percentage change in means of Profitabilty ratios of SBI

Sr. No.	Profitability ratios	Mean (Pre	Mean (Post	Mean (% ↑ or
		Merger)	Merger)	↓)
1.	Net Profit Margin (%)	7.325	-1.305	-117.816
2.	Operating Profit Margin (%)	-8.560	-18.665	118.0491
3.	Return on Assets (%)	.525	080	-115.238
4.	Return on Equity / Networth (%)	8.545	-1.490	-117.437
5.	Net Interest Margin (X)	2.550	2.280	-10.5882
6.	Cost to Income (%)	37.995	46.100	21.33175
7.	Interest Income/Total Assets (%)	7.195	6.485	-9.86796
8.	Non-Interest Income/Total Assets (%)	1.140	1.120	-1.75439
9.	Operating Profit/Total Assets (%)	605	-1.205	99.17355
10.	Operating Expenses/Total Assets (%)	1.810	1.810	0



Source: Author's calculation- AGM report of SBI

3. Analysis of Correlation between pre and post merger Market price ratios of SBI: It is clear that there is a negative correlation between pre and post merger means of Basic EPS, Dividend/Share, Diluted Eps, Net Profit/Share, EV Per Net Sales, Price To Book Value, Price To Sales ratios. While other ratios Cash EPS, Enterprise Value, Book Value [Excl. Reval Reserve]/Share showed positive correlation. However, in case of Book Value [Incl. Reval Reserve]/Share, Retention Ratios and Earnings Yield there is no correlation. The details are in following table no. 3

Table 3: Correlation analysis on basis of Market price ratios of SBI

Market Price Ratios	N	Correlation	Sig.
Basic EPS (Rs.)	2	-1.000	.000
Dividend/Share (Rs.)	2	-1.000	.000
Diluted Eps (Rs.)	2	-1.000	.000
Cash EPS (Rs.)	2	1.000	.000
Book Value [Excl. Reval Reserve]/Share (Rs.)	2	1.000	.000
Book Value [Incl. Reval Reserve]/Share (Rs.)	2	•	
Operating Revenue / Share (Rs.)	2	1.000	.000
Net Profit/Share (Rs.)	2	-1.000	.000
Enterprise Value (Rs. Cr)	2	1.000	.000
EV Per Net Sales (X)	2	-1.000	.000
Price To Book Value (X)	2	-1.000	.000
Price To Sales (X)	2	-1.000	.000
Retention Ratios (%)	2		
Earnings Yield (X)	2	•	
	Basic EPS (Rs.) Dividend/Share (Rs.) Diluted Eps (Rs.) Cash EPS (Rs.) Book Value [Excl. Reval Reserve]/Share (Rs.) Book Value [Incl. Reval Reserve]/Share (Rs.) Operating Revenue / Share (Rs.) Net Profit/Share (Rs.) Enterprise Value (Rs. Cr) EV Per Net Sales (X) Price To Book Value (X) Price To Sales (X) Retention Ratios (%)	Basic EPS (Rs.) Dividend/Share (Rs.) Diluted Eps (Rs.) Cash EPS (Rs.) Book Value [Excl. Reval Reserve]/Share (Rs.) Book Value [Incl. Reval Reserve]/Share (Rs.) Operating Revenue / Share (Rs.) Net Profit/Share (Rs.) Enterprise Value (Rs. Cr) EV Per Net Sales (X) Price To Book Value (X) Price To Sales (X) Retention Ratios (%)	Basic EPS (Rs.) 2 -1.000 Dividend/Share (Rs.) 2 -1.000 Diluted Eps (Rs.) 2 -1.000 Cash EPS (Rs.) 2 1.000 Book Value [Excl. Reval Reserve]/Share (Rs.) 2 1.000 Book Value [Incl. Reval Reserve]/Share (Rs.) 2 . Operating Revenue / Share (Rs.) 2 1.000 Net Profit/Share (Rs.) 2 -1.000 Enterprise Value (Rs. Cr) 2 1.000 EV Per Net Sales (X) 2 -1.000 Price To Book Value (X) 2 -1.000 Price To Sales (X) 2 -1.000 Retention Ratios (%) 2 .

Source: Author's calculation- SPSS

4. Analysis of Correlation between pre and post merger Profitability ratios of SBI: The following table no. 4 makes it very apparent that all the profitability ratios are negatively correlated except Interest Expenses/Total Assets ratio.

Table 4: Correlation analysis on basis of Profitability ratios of SBI



Sr.	Profitability ratios			
No.		N	Correlation	Sig.
1.	Net Profit Margin (%)	2	-1.000	.000
2.	Operating Profit Margin (%)	2	-1.000	.000
3.	Return on Assets (%)	2	-1.000	.000
4.	Return on Equity / Networth (%)	2	-1.000	.000
5.	Net Interest Margin (X)	2	-1.000	.000
6.	Cost to Income (%)	2	-1.000	.000
7.	Interest Income/Total Assets (%)	2	-1.000	.000
8.	Non-Interest Income/Total Assets (%)	2	-1.000	.000
9.	Operating Profit/Total Assets (%)	2	-1.000	.000
10.	Operating Expenses/Total Assets (%)	2	-1.000	.000
11.	Interest Expenses/Total Assets (%)	2	1.000	.000

Source: Author's calculation- SPSS

5. Analysis on the basis of significance level in pre and post merger Market Price ratios of SBI: The table shows the insignificant performance in most of the market performance related ratios. Just two of them namely, Enterprise Value and Retention Ratios showed significant performance in pre and post merger.

Table 5: Paired sample t-test analysis on basis of Market price ratios of SBI

Sr. No.	Market Price Ratios	t-value	df	Sig. Value
1.	Basic EPS (Rs.)	2.818	1	.217
2.	Dividend/Share (Rs.)	2.818	1	.217
3.	Diluted Eps (Rs.)	4.096	1	.152
4.	Cash EPS (Rs.)	-6.696	1	.094
5.	Book Value [Excl. Reval Reserve]/Share (Rs.)	-11.445	1	.055
6.	Book Value [Incl. Reval Reserve]/Share (Rs.)	6.778	1	.093
7.	Operating Revenue / Share (Rs.)	-5.790	1	.109
8.	Net Profit/Share (Rs.)	2.817	1	.217
9.	Enterprise Value (Rs. Cr)	-36.146	1	.018*
10.	EV Per Net Sales (X)	-6.179	1	.102
11.	Price To Book Value (X)	.231	1	.856



12.	Price To Sales (X)	.071	1	.955
13.	Retention Ratios (%)	-578.714	1	.001*
14.	Earnings Yield (X)	5.667	1	.111

Source: Author's calculation- SPSS

6. Analysis on the basis of significance level in pre and post merger Profitability ratios of SBI: It can be said that there is no significant difference in the performance of SBI in case of profitability ratios in pre and post merger period.

Table 6: Paired sample t-test analysis on basis of Profitability ratios of SBI

Sr. No.	Profitability ratios	t-value	df	Sig. Value
1.	Net Profit Margin (%)	2.955	1	.208
2.	Operating Profit Margin (%)	1.470	1	.380
3.	Return on Assets (%)	2.951	1	.208
4.	Return on Equity / Networth (%)	2.839	1	.216
5.	Net Interest Margin (X)	1.080	1	.476
6.	Cost to Income (%)	-3.160	1	.195
7.	Interest Income/Total Assets (%)	2.029	1	.292
8.	Non-Interest Income/Total Assets (%)	.095	1	.940
9.	Operating Profit/Total Assets (%)	1.429	1	.389
10.	Operating Expenses/Total Assets (%)	.000	1	1.000
11.	Interest Expenses/Total Assets (%)	4.400	1	.142

Source: Author's calculation- SPSS

7. CONCLUSION

On analyzing the results, it can be concluded that the merger activity resulted in negative effect on the overall performance of the bank. It has not showed any significant difference between the pre and post merger performance. So we can accept null hypothesis of the study. This study has attempted to analyse the perfor-

mance by taking wide range of ratios in order to get better insights of the activity. It is required to conduct further research by taking long period of data that may yield positive results of the activity. The short term period study has produced negative results. Also various other models can be applied to test the efficiency and performance of the SBI after merger.



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