# 'Merger & Acquisition impact on stock price movement: A Case study of State Bank of India and its Associate Banks'.

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***Abstract:***

*The merger and acquisition though considered mostly unsuccessful in initial phases but becoming successful in long run, is validated through stock price movement particularly for one year post merger period, applying event study analysis which further becomes true even beyond one year phase. This stock movement picking high growth trajectory in longer period is becoming dominant reason for ever increasing volume of merger and acquisition not only in banking sector but across the board.*

*This research case study of State Bank of India (SBI) merger with all its seven Associate Banks, becoming effective from 1. April.2017; is of paramount significance as SBI is not only largest bank but is followed by rest of all commercial banks in India. Its stock price analysis, and findings of stock price gaining value after first quarter, validated of it becoming successful in longer period.*

***Key-words:*** *Merger & Acquisition, stock price movements, event study, commercial banks.*

## 1. INTRODUCTION:

In 1959, the parliament passed the 'State Bank of India (Subsidiary Banks) Act'. This made 8 banks that had a place with different reputed states, associates of SBI.

SBI then started acquiring local banks which were in trouble. The first of all was the 'Bank of Bihar' (est. 1911) which SBI acquired in 1969, along with its 28 branches. The following year, SBI acquired 'National Bank of Lahore' (est. 1942) with its 24 branches. In 1945, SBI procured 'Krishnaram Baldeo Bank', which had been set up in 1916 in Gwalior State, with the support of 'Maharaja Madho Rao Scindia'. In 1985, SBI obtained the 'Bank of Cochin' in Kerala, with its 120 branches.

The initial move towards amalgamation happened on 13th August, 2008 when 'State Bank of Saurashtra' merged with SBI, reducing the number of partner state banks from seven to six.

On 19th June, 2009, the SBI board endorsed the assimilation of 'State Bank of Indore', in which SBI held 98.3%. The securing of 'State Bank of Indore' added 440 branches to SBI's current network of branches. The acquisition process of 'State Bank of Indore' was finished by April 2010, and from 26th August, 2010, its branches began working as branches of SBI.

Reasons for Merger of SBI with its Associate Banks

Essential reason for any association, regardless of whether it is an assembling organization or administration association is to develop year on year as far as benefits and client base. To build benefit, the associations should be adequately proficient to deal with their activities and fulfil their clients. To address truly expanding rivalry, diminish in general expense of activities, increment productivity, increment benefit, associations including banks are falling back on mergers and acquisitions. The essential reason for consolidation and obtaining action is to bring cooperative energy between two elements. Following are the purposes behind the mergers.

Government of India gives appropriation and commitment to bad obligation recuperation and offer cash-flow to SBI and its partner banks. It then will turn out to be simple for government to give help to a consolidated bank as against distributing it to SBI and its partner banks.

Profitability of SBI was dropping and this consolidation will actually want to show better situation of SBI. Net profit of the group tumbled from 12,225 crores in 2016 to 241 crores in Financial Year 2017 and the deterioration were chiefly because of partner banks.

To recuperate advances that have become terrible & to reduce NPAs in future, consolidation of SBI with partner banks was significant.

For recreation of SBI and partner banks in face of monetary emergencies so it can meet its liabilities.

With the consolidation, SBI has expanded more than earlier. Presently it has a bigger resource base and positions among top 50 banks of the world.

To Manage bank will become simpler, unlike before, when all the branches were managed by independent administration however the holding was same but the decisions made by them didn't turned out to be fruitful.

Cost of overseeing huge number of branches will decrease which will build productivity of bank.

Effects of Merger of SBI with its Associate Banks

As a consequence of merger, SBI has placed itself among top 50 huge banks of the world. Presently SBI have a resource base of 34 lakh crores.

Employees will be redistributed basically to client interface activities of those branches which are probably going to be closed down. The undertaking must help people as around 13000 workers have resigned at the time of mergers and 3600 have taken deliberate retirement.

Out of absolute resource base of SBI, 28 shares of SBI will be given to investors of SBBJ who had 10 shares and investors of SBM and SBT having 10 shares will get 22 SBI shares each as just these partner banks are recorded with stock trade. Rest two banks i.e., SBP and SBH are not recorded with the stock trade.

Effects of consolidation on clients will have a double impact. All the branches are required to work in the way they used to work without influencing banking administrations gave to them in their past (SBI Associate) bank.

The bank anticipates that the merger will provide benefits not only for depository tasks, the managing efficiency of administrative centers and the consequent appointment of authoritative staff in direct activities.

Customer experience will be better served and inefficient & loss making branches will be retuctured through this merger.

Other activities related to technological advancement, data innovation will also be strengthened after the merger.

However, NEFT/RTGS charges relevant to SBI will be charged. Online tranctions of associate banks should now be possible from site of SBI using their previous username and password.

The consolidation will make SBI almost multiple times greater than its nearby private sector rival, ICICI Bank, as far asset base is concern.

Challenges due to Merger of SBI with its Associate Banks

The mega-merger has several economic, strategic and structural advantages. However, this strategic move is not free from challenges. SBI may face several challenges.

The important challenges to address are:

Overlap of Branches: Presently SBI is operating as the largest bank in the country by all the means of assets as well as branch network. With branches in every corner of the country. At many places SBI group has more than sufficient branches which will result in overlapping of branches.

Too Big to Manage: SBI is going to become the largest bank in India. The merged SBI entity would have 24,000 branches 58,000 ATMs and 2.7 lakh employees. This is going to become another challenge for the top management and also keep its customers intact by providing better banking facilities.

Huge Bad Loans: There is huge amount of loans that are granted as advances but are not earning any returns, the effects of these bad loans will deteriorate performance.

People-side Issues: In mergers, it is not the two economic entities joining together, but also people with so much of career aspirations and expectations join together. People's concerns and their willingness to work with others are mostly ignored during a typical merger. SBI must address the issues like employee delight, morale and career utmost diligence.

Some Important Facts about State Bank of India

As India accepted the Industrial Revolution of 60's, SBI assumed a significant part in financing modern extension of key area like Iron and Steel, Manufacturing, Power, Ports, Jute Production, Cotton Mills, etc.

In the mid 70's, the bank catalysed on becoming environmentally friendly by giving money straightforwardly to cultivators, producing work and creating self-sufficiency in food grains. To advance powerful, proficient and ease conveyance models.

State Bank of India started supporting Regional Rural Banks. Today, the bank supports numerous RRBs in distant areas all over India noting the requirements of small farmers, crafts man and little entrepreneurs.

In the mid 90's, SBI turned into the principal public area bank to get to the homegrown and worldwide capital business sectors. It took SBI to the best five supporters of the economy, a position which it keeps up even today. SBI likewise gave first ever Global Depository Receipt (GDR) in India in 1996.

By the year 2008, one of the world's biggest center financial arrangements had been effectively executed connecting up even the most distant territories that would be available by foot or boat as it were. The bank utilized innovation as an incredible assistance in enabling clients to bank from anyplace and whenever and it acquainted substitute financial channels with encourage 24x4 banking across the world for SBI, requiring advanced banking to the fingertips of customers.

The bank went about as a momentum in the advancement of businesses as a significant driver in progress and work age. It started evolving as a significant part in financing modern development, creation, fares and market extension. This action was limited to massive ventures, along with small and medium undertakings.

The father of our country once commented 'India Lives in its Villages'. More than 55% of the population lives in its towns, more than 2/3 of the SBIs network is situated in rural and semi-metropolitan regions assisting residents with getting the coordinated financial area. The bank's attention in India started by the selection of almost 1 lakh unbanked towns.

Equipped with portable and biometric innovation, the bank has brought the coordinated banking at the doorsteps of each resident. The idea of utilizing miniature financed channel to arrive at reasonable credit to the country individuals through the self improvement gatherings has additionally gotten close consideration from the bank.

State Bank of India is upheld by unparallel commitment of more than 248000 financial experts and care staff at all levels that assisted it with filling in both flat and vertical ways.

To refresh and embrace new abilities and bring them at standard with best expectations, seven public level trade schools and 54 learning communities has been set up all over India. Throughout the long term, fourteen nearby administrative centers have been set up in New Delhi and distinctive state capitals all throughout the country to guarantee managerial accommodation just as to satisfy territorial desires.

SBI has 24000 branches around the country over with the critical impressions in rustic regions. The bank additionally has the biggest ATM organization of 59291 group ATMs.

The first foreign branch of the bank was opened in London in 1921 and it proceeded with its worldwide development with a presence across 36 countries starting with two agent workplaces in New York and Frankford in 1965.

The bank in under sixty years prevailing with regards to setting up 195 foreign branches covering untouched zones. Through these workplaces the bank offers different types of assistance to Indian organizations abroad and has co-operated with Indian people for all their monetary necessities.

Currently, SBI is the single biggest retail moneylender in India, giving reasonable credit to the average person. The bank has been the biggest supplier of home loans supporting more than 30 lakh families to have their own home.

State Bank of India has consistently been aware of its duties towards the general public. Under the standard of its local area administration banking, the bank consistently contacts different financial, natural and government assistance exercises stressing on the social upliftment.

In one more revolutionary move, SBI received the green financial strategy to diminish carbon impressions by embracing low fossil fuel by-product practices.

Mergers and Acquisitions in Indian Banking Sector

The financial administrations, especially the financial business has gone through huge change everywhere in the world since the mid 1980s under the effect of privatisation liberation, and globalization. A significant part of this interaction has been witnessed through enormous number of banks been blended, amalgamated, or rebuilt. Even though the cycle started during the 1980s, it quickened during the 1990s macroeconomic pressing factors and banking emergencies constrained the financial business to change its business procedures and the controllers to liberate the financial area at the public level and open up monetary business sectors to foreign competitors. The subsequent serious pressing factors on banks in the arising economies found changes in the construction of the financial business, including, privatization of state-possessed banks, mergers and acquisitions, and expanded presence of foreign banks. The financial worth engaged with the M&As, and the quantity of banks declined considerably both in cutting edge and developing business sector economies.

Banks are the most significant instrument that implies and portrays a sound monetary development and improvement of an economy. A sound financial framework is an indicator of development of economy of any country. After 1991 there has been gigantic financial changes like liberation, expulsion of hindrances, market progression, destroying of revenue control has prompted extraordinary competition; a higher measure of assumption by the consumers has driven banks to go through M&A exercises for accomplishing overall development. Mergers have also become a critical device to acquire quick cooperative energy benefits, procuring benefits through innovativeness and through procuring productivity gains. Indian banks have consistently been predominant even the monetary emergencies around the globe couldn't influence its development which is clear from its credit development and remarkable growth (Pillania et al., 2008)63.

REVIEW OF LITERATURE:

Ishwarya (2019) in her research "Study on Mergers and Bank Acquisition: A Case Study on SBI and its Associates" examined before & after merger financial performance

the banks with certain financial parameters. The study also looked at trends in M&As deals in the Indian banking sector. The analysis revealed that there were no significant alterations in the profitability after merger period. Research findings indicated that the merger between a strong bank and a distressed bank did not turn out to be as beneficial to a strong bank as it was to a sick bank.

Lyngdoh (2018) in the report "Study of the top private and public sector banks in India: a comparative analysis of their financial performance"evaluated the HDFC Bank & SBI for financial performance. The analysis was based on nine ratios including "credit deposit ratio", "interest expended to interest earned ratio", "net profit margin", "return on equity", "percentage change in net profits", "percentage change in total income", "percentage change in total expenditure", "percentage change in deposits", and "percentage change in advances". The research covered the five-year period spanning 2012-13 to 2016-14. Ratio analysis methodology was used to analyze & compare developments in banking sector with mean and compound growth rates to analyze trends in the profitability of the banking business. The findings of research revealed that banking customer has more preference and trust on SBI as it has larger customer base then HDFC. However, HDFC has shown faster growth due to more efficiency in operations than SBI.

Ashutosh and Shukla (2018) in their work titled "Study on the Impact of Mergers and Acquisitions on the Performance Efficiency of Indian Banks" observed the pre & post merger financial performance of the acquirer bank. Three banks, 'HDFC Bank','ICICI Bank' and 'IDBI Bank' has been taken as sample. CAMEL model was employed to assess the financial capability and efficiency of acquirer banks after merger & acquisition. The findings showed that all banks in the analysis reported a capital adequacy ratio of more than 9 percent, which is appreciable. The study also analysed various parameters of sample banks and found ICICI to be the highest scorer.

Krishna Prasad V and Mridula Sahay (2018) in their study explain the "Reasons and Benefits, Companies are getting through the Mergers and Acquisitions". They also discussed the main factors for failure of some mergers and acquisitions in the country. They have used the Casual Loop Diagram system to show the advantages & disadvantages of M&As. The purpose for mergers varies from company to company. The procedure of mergers and acquisition involved a number of obstacles, like different culture, no expert advice at any level of the business within which they have integrated, and some businesses have been compeled to cut off their workforce to an optimal level. It was noted that several of the businesses were engaged in M&As in order to grow their business in a specific region.

Ullah et al. (2018) in their study "M&A in Islamic Banking Sector: An Empirical Analysis on Size Effect, Market Structure and Operational Performance" emphasized the mergers and acquisitions activities in banking performance and highlighted some factors that contribute to successful execution of merger and acquisition deals. The researchers reviewed more than thirty papers over a period of twenty years from 1993-2014. The research suggested that a systematic effort on conceptual analysis as well as data collections on M&A in Islamic banking needs to be in place in order to efficiently analyze its performance factors and issues.

Singh and Das (2018) in their study "Impact of post-merger and acquisition activities on the financial performance of banks: A study of Indian private sector and public sector banks" examined the financial performance (post-merger) using "liquidity ratios", "activity turnover ratios" and "Net profits". It was concluded that left over earnings were affected by longer period of mergers, at the same time, the acquisition activities of BOB with 'Banaras State Bank', HDFC Bank with 'Times Bank', OBC with 'Punjab Cooperative' and PNB with 'Nedungadi Bank' didn't had any effect and the merger announcement resulted in no CAR on target banks stocks.

Prof. P. Veni & Narender Ryali (2017) in their paper described the "Current Scenario of banks profitability in accordance with the Spread to Average Working Funds ratio". In their study they try to analyse the ratio of Spread to AWF of public & private commercial banks. Time period for study is five years from 2012-13 to 2016-17. The study reveals that profitability as measured by the Spread to Average Working Fund is greater in private sector as compared to public sector banks, which is 3.146 and 2.29 average ratio of the study period respectively. The study concluded the average spread to working funds ratio has a crucial role in private banks compared to the public banks.

Khurana (2017) in his study "Analysis of merger of SBI and its Associates" discussed the reasons behind the merger and its effects on shareholders and the people who have interest in its operations (stakeholders). In the study SBI along with the associate banks were examined for the reasons of changes in profitability. It was concluded that the merger boosted the SBI's position at world level but profitability of SBI has shown decline after merger due to poor performance and reported losses by the associate banks.

Geekiyanage and Jahfer (2017) in their research "Stock Price Reaction to Merger and Acquisition Announcement: Evidence from Colombo Stock Market" analyzed the impact of the mergers announcement on the stock prices of companies listed on the Sri Lankan stock market from 2009 till 2014. Event study methodology was used for the purpose of study. AAR and CAR were observed 30 days before & 30 days after the declaration of merger and acquisition. The financial ratios were analyzed for the analysis, -2yrs & +2yrs the date of the announcement. Results showed that target firms had negative impact on the firm performance means did not get significant advantage by going for the merger and acquisition while the acquirer showed positive impact on firm performance after the declaration of M&A.

Rahman et al. (2017) in their work "The effects of mergers and acquisitions on stock price behaviour in banking sector of Pakistan" explored the stock price behaviour of Pakistan's banking sector due to the mergers and acquisitions during the period from 2002-2012. For the purpose of study 11 merger and acquisition deals were taken as sample. Market Study Approach was employed to measure impact on share prices after merger. The results revealed that most companies had negative returns, while others had positive AR & CAR after the announcements. The analysis indicates that the market reacted poorly to M&A deals in Pakistan's banking sector.

Akenga and Olang (2017) in their research "Effect of Mergers and Acquisitions on Financial Performance of commercial banks in Kenya" investigated the effects of "asset growth", "shareholders' value" and "synergy" on the Kenya's merged banks financial performance. Six bank merger deals which happened during the period from 2010 to 2017 were taken as sample. Inferential statistics were utilized to logically infer the relationship between M&A and banks performance using a regression model. The researchers indicated that "asset growth", "synergy", and "shareholder value" had a direct impact on the financial performance of banks.

Satapathy (2017) in his study "Do mergers create shareholders value: Evidence from Indian Banking Industry" examined the impact of merger declaration on the acquiring bank return in short run in context to Indian banks. The study covered M&A from 2001 to 2014 and sixteen banking companies have been considered. Using "event study methodology", the abnormal return, before the event, on event day and after the event was calculated and t-test was applied to find the impact of merger declarartion on the stock returns. The study indicated a negative and insignificant returns after merger.

Singh (2017) in the paper titled "Financial Analysis of SBI: A study with Special reference to Indian Banking Industry" examined State Bank of India's financial performance through CAMEL approach focusing on "capital adequacy", "asset quality", "management quality", "earning ratios" and "liquidity ratios". The findings revealed 'Capital Adequacy ratio' and 'Profit per employee' had shown good sign for the bank while 'asset quality', 'non-interest income to total income' and 'Liquidity ratio' were not satisfactory.

Satyanarayana et al. (2017) in their study on "A case study on mega merger of SBI with its five Subsidiaries" explored the factors that triggered the merger of SBI with its Associate banks and also attempted to evaluate the challenges and opportunities of Mega merger. It is suggested that there are several economic and strategic advantage to the merged entity. However, the new entity is not free from challenges. It must gear up to face new challenges that are to come in future.

Kaur and Bhatia (2016) assessed performance in the State Bank group by branch and employee in their paper "Productivity in the Indian Banking Sector – A Study of the SBI Group". In order to calculate performance and growth, the study was divided into 6 equal two-year sub-periods from 2003 to 2013. The results show a growth in the industry due to a rise in the number of branches. The researcher indicated that, when opening up new branches, due care should be taken, attention should be paid towards ensuring better facilities for both business development and earnings. Proper attention should be given to branches of regional and head offices for enhancing the branch profitability, as well as, productivity.

Singh and Gupta (2015) in their paper "An impact of mergers and acquisitions on productivity and profitability of consolidation banking sector in India" examined the impact of M&A on profitability as well as a productivity based on fourteen ratios, which compared the before and after merger status of identified banks (public and private) from 2004-05 to 2014-15. The study covers a public sector bank merger between SBI and State Bank of Saurashtra, held in 2008 and a private sector bank merger between 'ICICI bank' and 'Bank of Rajasthan', held in 2010. A t-test, mean, standard deviation and p-value were employed for comparing financial performance of selected bank mergers. The study revealed an increase in the post-merger financial capability of selected banks.

Rani et al. (2015) in their study "The Impact of Mergers and Acquisitions on

Shareholders Wealth in the Short Run" analysed the magnitude of abnormal returns in domestic and cross border merger and acquisition including "method of payment adopted" (cash or share), "form of target firm acquired" (listed or unlisted), "status of the target firm remains" (wholly owned subsidiary and take of acquisition parcel majority, complete control). The research covered the period from 2003 to 2008 and "event study methodology" was employed to analyze the impact of M&A on the stock price. The study showed that extent of surplus returns is much larger for 'cross border acquisitions', 'unlisted target firms', 'cash payment for merger and acquisition' and 'complete control on the target firm as a wholly owned subsidiary' than that for domestic acquisitions listed target firms, stock payment and partial control.

Shah and Arora (2014) in a study entitled "M&A Announcements and their Impact on the Return to Shareholders: An Event Study" examined the effect of mergers and acquisitions declaration on the share prices of the target and bidding companies in the 'Asia-Pacific region'. Thirty-seven announcements of mergers and acquisitions in the 'Asia-Pacific region' for the period starting May 2013 till September 2013 were sampled and the abnormal returns for various time periods, i.e. two, five, seven, and ten days before and after the announcement date of both target and bidder firms were analyzed using the 'Event study methodology'. The study showed that the CAAR of the bidding firms throughout various time periods was not significant and therefore do not produce abnormal returns as a consequence of merger declaration. Unlike bidder firms, the target firms' share price yielded significant CAAR. Target firms showed that perhaps returns on the post-announcement were higher than pre-announcement returns, implying an instantaneous market response to the disclosure of information.

Stunda (2014) in the research "The Market Effects of Mergers and Acquisitions on the Acquisition of Firms in the U.S" analyzed the M&A operations of the acquisition companies in the U.S. over the period 2009-2012 and compared the stock price impact of comparable size firms in the similar sectors not participating in merger and acquisition practices during the same course of the study. Ordinary least square (OLS) regression was utilized to evaluate the models for all hypotheses. The results showed that while the acquisition of companies (n=1418) was compared to companies not involved in merger and acquisition practices (n=1500). The acquiring company's share price impact was negatively significant, whereas the non-merger and acquisition company's share price effect was significantly positive. When the acquiring companies were analyzed from an industry viewpoint, it indicated that companies in all sectors would have a substantial negative impact on stock prices, except for the oil & gas companies, together with the banking and financial sector. The study also suggested that companies in some industries could have a more positive influence on the stock price effect than companies in other industries.

Athma and Bhavani (2012) in their paper "Mergers in Banking Sector in India: An Analysis of Pre & Post Merger Performance of SBI & HDFC Bank" analyzed the pre & post-merger performance using key parameters; 'Branch Level Efficiency', 'Employee Productivity' and Profitability of 'SBI' and 'HDFC'. A t-test, Pearson's multiple correlation & regression analysis are used apart from percentages and averages. The findings of study show that all key parameters in case of 'SBI' and 'HDFC Bank' reported a rise in productivity ratios.

In a report entitled "Effect of Merger Announcements on Shareholder's Wealth: An Event Case Study of State Bank of India", Sikarwar (2012) analyzed the impact of merger declaration on share prices employing "event study" methodology. The research evaluated the merger of SBI and its two subsidiaries,'State Bank of Saurashtra' and 'State Bank of Indore', by measuring the abnormal returns received by the shareholders during the event period. The event window for the merger of the two subsidiaries with SBI was taken as-20 days from the date of the announcement to 20 days. The study concluded mixed results on the creation of shareholder wealth following a merger announcement. A sizeable abnormal returns as a result of merger of the 'State Bank of Saurashtra' around the event date indicated informational ineffectiveness. The results of the merger of the 'State Bank of Indore' with less abnormal returns revealed that market price fluctuations were not only influenced by recent information but also by the manner in which it corresponds to prior information and expectations.

Objectives of Study

The research aims to assess the impact of mergers & acquisitions on bank efficiency by investigating merger of SBI with its Associates that took place on 1st April, 2017.

The present study has four primary objectives, mentioned as below:

To evaluate pre-post merger stock price performance of SBI and its Associates (Consolidated).

Research Hypothesis

A research hypothesis is a real, explicit and testable statement or a predictive assertion of the potential outcome of an empirical research centred on a population specificity, including the presumed differences between groups on a specific variable or even the relationship between variables (Riazi, 2016). It assures that all research methods are scientific and accurate. It helps to expect the possibility of research failure and success. For this study, the following hypothesis is developed and will be checked by applying the specific test:

Stock Price Analysis of SBI Using Event Study Methodology

Event-Study

In order to study the change due to merger of Acquirer bank with Target banks on the post-merger share price of Acquirer bank, the Event study requires, event date, Abnormal Return(AR) and Cumulative Abnormal Return(CAR).

Event Date: It is the date on which merger has been announced or date on merger has come into effect.

Abnormal Return (AR): It measures the stock market's initial reaction to a merger event and division of any gains from any new information which becomes available to the market. Daily share price changes are tracked to compute daily Abnormal Return (AR) for the security i as on a particular day (t) by employing Market Model.

AR = R - E(R)

AR = Abnormal Return on security i for day t.

R = Return on Security i during t.

It is calculated by taking, (stock price on day (t) – stock price on (t-1) day/ stock price on (t-1) day).

E(r) = Expected rate of return on security i that it would ordinarily earn for a given level of market performance for day t.

This is measured using the market model denoted by the equation.

$E(r) = \alpha + \beta\ Rm$

The study deduced the market performance by taking the BSE 100 as the market benchmark. Values of α and β were estimated by regressing Rm (BSE 100 Mkt Return dependent variable) on R (SBI return independent variable).

Cumulative Abnormal Return (CAR): In the days surrounding the merger were needed to examine whether shareholders of merging firm (Acquirer firm) gained from the merger.

$$CAR = \sum AR \quad (3)$$

Where CAR is the cumulated excess return from day.

Using SPSS software, for every 2,5,10,15 upto 245 day window, pre-merger and post-merger AR paired t-test and in the same order pre-merger and post merger CAR t-test is carried out and tabulated for share price analysis.

Table 4.1: Event Study of State Bank of India

| S.No. | Day Window | Returns | Pre-Merger Mean | Post-Merger Mean | Correlation | t-value | Degree of Freedom (Df) | Sig. (2-tailed) p-value | Significance Y/N |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 Day | AR | .00471 | .00495 | -1.00 | -3.083 | 1 | .200 | ↓N |
| | | CAR | .77221 | .78660 | 1.00 | -175.25 | 1 | .004 | ↓Y |
| 2 | 5 Day | AR | .00485 | .00504 | .110 | -1.709 | 4 | .163 | ↓N |
| | | CAR | .76508 | .79423 | 1.00 | -131.9 | 4 | .000 | ↓Y |
| 3 | 10 Day | AR | .00516 | .00493 | .491 | 2.180 | 9 | .057 | ↓N |
| | | CAR | .75223 | .80670 | 1.00 | -300.64 | 9 | .000 | ↓Y |
| 4 | 15 Day | AR | .00500 | .00504 | -.362 | -.274 | 14 | .788 | ↓N |
| | | CAR | .73916 | .81907 | .999 | -232.93 | 14 | .000 | ↓Y |
| 5 | 20 Day | AR | .00488 | .00529 | .052 | -2.648 | 19 | .016 | ↓Y |
| | | CAR | .72698 | .83260 | .999 | -237.82 | 19 | .000 | ↓Y |
| 6 | 30 Day | AR | .00463 | .00545 | .373 | -7185 | 29 | .000 | ↓Y |
| | | CAR | .7036 | .8605 | 1.000 | 130.008 | 29 | .000 | ↑Y |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7 | 50 Day | AR | .00391 | .00599 | .813 | -23.758 | 49 | .000 | ↑Y |
| | | CAR | .66447 | .92067 | .998 | -64.161 | 49 | .000 | ↑Y |
| 8 | 70 Day | AR | .00297 | .00646 | .885 | -28.927 | 69 | .000 | ↑Y |
| | | CAR | .6364 | .9880 | .987 | -43.923 | 69 | .000 | ↑Y |
| 9 | 100 Day | AR | .0020 | .0071 | .880 | -41.702 | 99 | .000 | ↑Y |
| | | CAR | .6169 | 1.1008 | .909 | -31.447 | 99 | .000 | ↑Y |
| 10 | 150 Day | AR | .0026 | .0083 | .056 | -24.062 | 149 | .000 | ↑Y |
| | | CAR | .5712 | 1.3213 | .935 | -32.078 | 149 | .000 | ↑Y |
| 11 | 200 Day | AR | .0029 | .0087 | -.440 | -23801 | 199 | .000 | ↑Y |
| | | CAR | .4959 | 1.5580 | .937 | -39.135 | 199 | .000 | ↑Y |
| 12 | 245 Day | AR | .0031 | .0094 | .028 | -33.114 | 244 | .000 | ↑Y |
| | | CAR | .4195 | 1.7885 | .956 | -44.478 | 244 | .000 | ↑Y |

**6.1 Findings of Event Study Analysis**

Table 6.1: Summary of Event Study Analysis

| S.No. | Day Window | Post Merger CAR | | |
|---|---|---|---|---|
| 1 | 2 Day ↑S | 4 | 50 Day↑ S | |
| 2 | 5 Day ↑S | 8 | 40 Day↑ S | |
| 3 | 10 Day↑S | 9 | 100 Day | ↑ S |
| 4 | 15 Day↑S | 10 | 150 Day | ↑ S |
| 5 | 20 Day↑S | 11 | 200 Day | ↑ S |
| 6 | 30 Day↑S | 12 | 245 Day | ↑ S |

CAR:- Cumulative Abnormal Return, S: Significant, NS: Non Significant

Event Analysis : SBI Post-Merger Stock Price

The continuous increase in AR (Abnormal Return), is statistically insignificant up to 15 days post merger (barring insignificant decrease for 10 days) but afterwards up to 245 days it increased significantly adding up the continuous increase in CAR (Cumulative Abnormal Return) for the complete span of 1 year post merger.

The post-merger statistically significant stock price increase, as is observed through CAR continuously from 2-day window up to 245-day window, covering a span of 1 year indicate SBI stock price gained post merger, as is perceived by the market.

The post merger SBI stock price gain indicate merger being successful, as is perceived by the market.

**SBI Merger Case Study: Overall Findings and Conclusions**

It is observed through Pre-Post SBI Merger Event Study Analysis that 1 year after the merger there is continuous increase in stock price CAR, which indicates market perceives this merger as financial success.

The SBI merger case analysis concludes it as financial success.

This SBI Merger case study applies stock performance through event study,; which can further be applied to study other Indian Public and Private Sector Bank merger.

This SBI Merger provides the framework to forecast the future financial health of merged SBI, which may enhance the investment decision of investors.

The Merger of various banks into SBI is being treated as a huge step in impacting the economic environment of India due to the size, nature and number of stakeholders involved. Present research will contribute to not only understand the post merger performance of SBI but will explain the impact of this merger on stock prices. This study will be highly useful for students studying M&A, stock prices and impact studies.

**Limitation of Study**

Financial Position can be reflected by different-different ratio like Net Profit, Operating Profit, ROI etc. The study however judges the financial position only on the basis of Spread and Burden.

Productivity again is a subjective term. Different people have different meaning. The study only takes per employee & per branch as productivity parameter.

The study is only limited to SBI and its Associates and therefore the findings cannot be compared and generalized about other banks and industries.

The study is based on secondary data which again has its own limitations.

**Future Implications of the Study**

The findings of this research will provide the policy makers with suitable information to develop better management & reviving strategies for banks which are struggling for their survival or are making huge losses.

This study will provide the framework to forecast the future financial health of merged SBI, which may enhance the investment decision of investors.

This SBI Merger case study applies stock performance through event study, financial profitability, productivity and CAMEL analysis; which can further be applied to study other Indian Public and Private Sector Bank mergers.

This study will be highly useful for students studying M&A, stock prices and impact studies.

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