STOCK PRICE BEHAVIOR OF INDIAN BANKING SECTOR PRE AND POST ANNOUNCEMENT OF MERGERS AND ACQUISITIONS

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ABSTRACT: Mergers and acquisitions are primarily carried out to expand the organization or its operations, increase profits, prevent the company from facing losses. The impact of mergers and acquisitions on stock price performance may be positive or negative.

The study aims at identifying a difference in the stock price behavior and liquidity as well as trends of selected acquiring companies of Indian banking sector pre and post announcement of Mergers and Acquisitions. The mergers considered in the study are of the last 10 years including private sector banks and public sector banks. The study is conducted as an event study analysis using CAPM. The analysis is done using IBM SPSS software to conduct test of descriptive statistics, Paired Sample t-test, Correlation test.

The research findings depict that there was no significant impact of the announcement in the selected time period. There was no significant correlation or difference between the pre and post period of each merger announcement in the 100 days time window, however, there is a correlation in the shorter time windows of 2 days and 10 days. Similarly, the difference gradually increases as the time window decreases where one case even witnesses a significant difference in the 2 days time window.

The analysis of the duration of impact of the announcement show that there is an extremely short term impact of the announcement on the stock price behaviour. The research findings suggest that the announcement of mergers cause a statistically significant change in the liquidity of the acquiring company, where half the cases show a decrease or an increase in liquidity.

All the mergers selected occur in different time periods, but the returns of the acquiring companies follow a few similar trends after the announcement of merger as mentioned above.

Key words: Merger and Acquisition announcement, event study, stock price behaviour, trends, difference, impact

I.   INTRODUCTION

In recent times, the Indian Banking Industry has witnessed various large scale mergers such as that of ICICI Bank Ltd. And ICICI Ltd, SBI with all its 5 associates, etc.

These mergers may be successful or unsuccessful depending on various factors such as synergy among the merging companies, speculative activities, business conditions, etc.

Hence the financial performance of merged companies post merger reflect the short term and long term impact.

More often than not, the stock of the acquiring company falls after the restructuring activity. The acquiring company usually pays a premium for acquiring the target company using large amounts of cash or debt to finance the deal. This may result in the stock suffering.

The study aims at answering the question of what the change in the stock price behaviour and liquidity of the selected acquiring companies in the banking industry after merger and acquisitions are announced are and what trends and implications they have. The announcement of a merger may or may not have any direct implication on the stock price behaviour of a company. The implication, if present, may only be in the short run or may extend in the long run as well.

II.   REVIEW OF LITERATURE

(Barasa, 2015) aimed at establishing the impact of announcements of mergers and acquisitions on the share prices of companies listed at the NSE. The research design for the study was the event study methodology to measure abnormal stock price effect associated with M&A. The study looked at a period of 2007-2014 at the NSE with 9 cases. The basic idea of the event study was to determine whether there is an abnormal stock price effect that are associated with a specific event by comparing the performance with the event and without the event. This study used CAPM model to test whether the firms generated abnormal return or not. Cumulative abnormal return (CAR) was estimated by adding average abnormal return and Test of Significance was also conducted. The results are depicted in the form of graphical representations. The study concluded on a positive significant relationship existed between of mergers and acquisitions and subsequent financial performance.

The study as per (Zahoor Rahman, 2018) explores the effect of Mergers and Acquisitions on stock price behaviour of banking sector in Pakistan by using event study analysis for a 10-year time period 2002–2012. Method of Market Study was used to compute the abnormal and cumulative abnormal returns for analysing pre and post effect on share prices. The secondary data of share prices was collected from the website Business Recorder which keeps the record of daily stock prices of firms listed on the Karachi Stock Exchange. Here, the methodology uses formulas of abnormal returns being the difference between the expected market returns and the actual market returns of the stocks. The Cumulative Abnormal Returns (CARs) is calculated by summing all abnormal returns in the study. The results were represented in tabular and graphical format. The results depicted that the M&A had a majority of negative impact on the stock performance.

(K Ramya, 2016) conducted a study on "An empirical analysis of the stock price behaviour on merger and acquisition with special reference to merger involving Kotak Mahindra Bank with ING Vysya Bank". Objective of the Study is to analyse stock price behaviour of bank on its pre-merger to analyse stock price behaviour of bank on it's post merger. This study is mainly based on the secondary data. The required data was collected from the website of bank involved in merger, website of NSE and various articles and reviews relating to the topic available on the internet. In the course of analysis of this study, various

techniques such as Event study methodology, Market model, t –test, and mean have been used. The cumulative trend analysis shows that there is no significant difference in abnormal return pre and post press announcement date of merger.

(Neelam Rani, 2011) present the paper to examine short-term abnormal returns to the shareholders of acquiring companies. The focus of this paper is on mergers and acquisitions activities in the pharmaceutical industry with respect to abnormal returns along with cooperative strategies adopted by major companies. The time period under observation is 2001-07. The event study methodology is used to examine short-term stock price reaction to mergers and acquisitions announcements. The market model with value weighted market index (BSE SENSEX) has been used to estimate abnormal return. The traditional market model is used to estimate abnormal returns. This study concludes that although Mergers with foreign-based targets as well as India-based targets do not create short-term wealth on the day of announcement, there are significant positive abnormal returns to shareholders of Indian pharmaceutical companies on their acquisitions of foreign targets.

(Aasif Shah, 2013) attempt to examine the impact of mergers on the stock price behaviour of acquirer as well as the target shareholders in the Indian banking industry. OLS Market Model and Constant Market Model were used on the analysis of 17 mergers of Private and Public sector banks. The results show that the mergers had no significant impact on bidder portfolio. However for target banks results demonstrated that none of the average CAR appeared statistically significant when Global Trust Bank (GTB), a loss making bank was included. However, the average CAR suddenly showed significant positive returns when the same bank is expelled from the target sample. The study also calculated the negative abnormal returns for most of the private sector banks.

In this paper (Shaheen, 2006) aims to determine whether abnormal returns of target firms are significantly different from abnormal returns of acquiring firms; Compare abnormal returns experienced by target versus acquiring firms in cash financed versus stock financed acquisitions; Establish a relationship between abnormal returns, method of financing, nature of bid and the size of deal premium. Event study methodology has been used to analyse the impact of announcement of merger or acquisition on the stock behaviour using secondary data gathered on 40 such announcements. The OLS Market Model is used to test for the existence of abnormal returns. The results indicate that target firms experience significant positive abnormal returns surrounding an acquisition announcement. In case of hostile transactions, the abnormal returns are maximized one after event day as opposed to event day for target firms. Acquiring firms experience negative abnormal returns on announcement day for stock financed acquisitions. Further, linear regression models are used to predict abnormal returns.

III.   RESEARCH DESIGN

3.1 Objectives

- To draw a comparison between stock price behaviour of the acquiring company before and after the announcement of merger or acquisition.

- To investigate into the degree and duration of impact of the merger announcement on the stock price behavior of the acquiring company.

- To draw a comparison between the stock price behaviour of public sector banks and private sector banks before and after the merger or acquisition announcement.

- To find a difference in the liquidity of the stock before and after the announcement of merger or acquisition.

- To find trends in the stock price behaviour in the pre and post announcement period of each acquiring company

3.2 Population and Sample

The study comprised of 5 chosen mergers and acquisition announcements. 100 days prior and post announcement of merger and acquisition data will be used. The mergers and acquisitions have been chosen between the time period of 2007-2017 (past 10 years).

The acquirer or merging bank must be listed on BSE. Daily stock prices have been taken for this purpose.

3.3 Data and Sources of Data

For this study secondary data has been collected. From the website of BSE the daily stock prices for the sample firms are obtained from the 5 mergers that happened from 2007-2017. 100 days prior to and post the announcement have been taken for data collection.

3.4 Theoretical framework

Variables of the study contains dependent and independent variable. The study used pre-specified method for the selection of variables. The study used Stock price behaviour and liquidity of companies selected after the announcement as dependent variable. Merger and Acquisition announcement, is taken as independent variables.

The study aims at identifying the stock price behavior of selected acquiring companies of Indian banking sector pre and post announcement of Mergers and Acquisitions. All the mergers and acquisitions of banks taken into consideration are from the recent past in order to identify a difference in their stock performances before and after the restructuring activity as well as the trends.

Banks under study were

- Merger of State Bank of India and the 5 associates of SBI in 2017 (public sector)

- Merger of State Bank of India and State Bank of Indore in 2009 (public sector)

- Merger of HDFC and Centurion bank of Punjab in 2007 (private sector)

- Merger of ICICI and Bank of Rajasthan in 2010 (private sector)

- Merger of Kotak Mahindra Bank and ING Vyasa Bank in 2014 (private sector)

3.5 Research Methodology

The study is conducted using secondary data. The stock prices are collected from BSE website. Various other research articles are used for reference.

The analysis is done using IBM SPSS software to conduct test of descriptive statistics, Paired Sample t-test, Correlation test. After determining the stock price behaviour, various trends were The study comprised of 5 selected companies listed on the Bombay Stock Exchange in the banking industry which acquired or were merged with another company within the span of the last 10 years. The study was conducted with an intention to find the statistical difference in the 95% confidence interval of the difference among the means before and after the announcement of the merger or acquisition.

The same test is conducted to determine the change in liquidity of the selected companies.

Model for CAPM

The study is conducted as an event study analysis using CAPM model on the basis of stock price behaviour prior to and post the announcement of a Merger or Acquisition. CAPM Model is used to compute the abnormal and cumulative abnormal returns for analysing pre and post effect on share prices. The CAPM Model is used to calculate the abnormal returns of each day where

Abnormal return = Actual returns – Expected Returns

Expected Returns is calculated using the formula:

$R_{jt} = a_j + b_j R_{mt} + \mathcal{E}_\mu$

Where;

- R_j is the return on stock j on day t
- a_j and b_j are the intercept and slope respectively of the linear relationship between the returns of stock j and returns of general market.
- R_m is the return on the market index on date t.

$\mathcal{E}_j$ is the unsystematic (residual) component of firm's returns

3.6 Limitations of The Study

- The study only includes stock price behaviour of recent merged and acquired companies from the banking sector. Only a 10-year time frame is being analysed. Hence, there are only a limited set of environment factors that may impact these restructuring activities of the same industry.
- The study includes the analysis of only 5 merger and acquisitions. Hence, it may not provide a holistic purview of trends in the industry.
- The study includes only 100 days, 10 days and 2 days prior and post the merger or acquisition. Hence, the scope of interpretation is limited.

IV. FINDINGS

The research findings using Descriptive Statistics, Paired sample t-test and Correlation test depict that in all the companies selected, there was no significant difference in the means of the cumulative abnormal returns in the 100-day period before and after the merger announcement. However, in the short term event windows of 10 days and 2 days, the difference in the stock price behaviour is seen to noticeably increase, specifically in the 10 days time window. In the case of SBI acquiring State Bank of Indore, there

is a statistically significant difference in the means between the period before and after the announcement. There is no significant correlation between the time periods in the 100 day period, but most of the cases of mergers under the study have seen a correlation between the pre and post period in a shorter time span of 2 days and 10 days.

Stock Price behaviour and Trading Volume

The paired sample t-test used the hypothesis of :

H_0 – There is no significant difference in the stock performance before and after the merger announcement; $P>0.05$

H_1 – There is a significant difference in the stock performance before and after the merger announcement $P<0.05$

H_0 – There is no significant difference in the liquidity before and after the merger announcement; $P>0.05$

H_1 – There is a significant difference in the liquidity before and after the merger announcement $P<0.05$

A) HDFC

TABLE 4.1
Paired Sample t-test HDFC (100 days CAR)

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	HDFCpre – HDFCpost	.23477	4.87259	.49474	-.74727	1.21682	.475	96	.636

From the table it can be seen that, there is no significant difference in the stock performance of HDFC Bank before and after the merger announcement

TABLE 4.2
Paired Sample t-test HDFC (10 days CAR)

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	HDFCpre – HDFCpost	.00586	.01614	.00510	-.00568	.01741	1.149	9	.280

From the table it can be seen that, there is no significant difference in the stock performance of HDFC Bank before and after the merger announcement. However, the significance has reduced with the decrease in time window.

TABLE 4.3
Paired Sample t-test HDFC (2 days CAR)
Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2–tailed)
					Lower	Upper			
Pair 1	HDFCpre – HDFCpost	-3.12839	4.03190	2.85099	-39.35360	33.09682	-1.097	1	.470

From the table it can be seen that, there is no significant difference in the stock performance of HDFC Bank before and after the merger announcement

TABLE 4.4
Paired Sample t-test HDFC (100 days trading volume)
Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2–tailed)
					Lower	Upper			
Pair 1	HDFCpre – HDFCpost	–39764.890	164551.661	16455.1661	–72415.510	–7114.2704	-2.417	99	.017

From the table above it can be seen that, there is a significant difference in the mean of trading volume in the 100-day period before and after the merger announcement. Hence, there is an increase in the liquidity.

B) SBI (2017)

TABLE 4.5
Paired Sample t-test SBI 2017 (100 days CAR)
Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2–tailed)
					Lower	Upper			
Pair 1	SBIpre – SBIpost	-.01681	2.30082	.23242	-.47809	.44448	-.072	97	.942

From the table it can be seen that, There is no significant difference in the stock performance of SBI before and after the merger announcement

TABLE 4.6
Paired Sample t-test SBI 2017 (10 days CAR)
Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2–tailed)
					Lower	Upper			
Pair 1	SBIpre – SBIpost	-.69465	1.18380	.37435	-1.54149	.15219	-1.856	9	.096

From the table it can be seen that, There is no significant difference in the stock performance of SBI before and after the merger announcement. However, the significance value is close to 5% which means that there is a difference in the means.

TABLE 4.7
Paired Sample t-test SBI 2017 (2 days CAR)

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	SBIpre – SBIpost	-.01912	2.04140	1.44349	-18.36037	18.32214	-.013	1	.992

From the table it can be seen that, There is no significant difference in the stock performance of SBI before and after the merger announcement.

TABLE 4.8
Paired Sample t-test SBI 2017 (100 days average trading volume)

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	SBIpre – SBIpost	486656.590	2444634.87	244463.487	1587.99481	971725.185	1.991	99	.049

From the table it can be seen that, there is a significant difference in the mean of trading volume in the 100-day period before and after the merger announcement. The mean trading volume before the announcement was 2095400.28 and after the merger announcement was 1608743.69. Since the average trading volume has significantly decreased post the merger announcement, the liquidity of the company has decreased as well.

C) ICICI

TABLE 4.9
Paired Sample t-test ICICI (100 days CAR)

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2–tailed)
Pair 1	ICICIpre – ICICIpost	-.20808	2.44070	.24782	-.69999	.28383	-.840	96	.403

From the table it can be seen that, There is no significant difference in the stock performance of ICICI Bank before and after the merger announcement

TABLE 4.10
Paired Sample t-test ICICI (10 days CAR)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	ICICIpre – ICICIpost	.18809	3.74718	1.18496	–2.49249	2.86866	.159	9	.877

From the table it can be seen that, There is no significant difference in the stock performance of ICICI Bank before and after the merger announcement

TABLE 4.11
Paired Sample t-test ICICI (2 days CAR)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	ICICIpre – ICICIlpost	6.31559	3.27800	2.31789	–23.13603	35.76721	2.725	1	.224

From the table it can be seen that, There is no statistically significant difference in the stock performance of ICICI Bank before and after the merger announcement. However, the 2 tail significance value is low which means that there are differences among the means, but they are not absolutely insignificant. There are comparatively more differences in this time window.
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TABLE 4.12
Paired Sample t-test ICICI (100 days trading volume)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	ICICIpost – ICICIpre	166435.152	398840.482	40084.9767	86887.8199	245982.483	4.152	98	.000

From the table above it can be seen that, there is a significant difference in the mean of trading volume in the 100-day period before and after the merger announcement. Since the means have significantly decreased, there is a decrease in the liquidity.

D) Kotak Mahindra Bank

TABLE 4.13
Paired Sample t-test Kotak Mahindra (100 days CAR)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	KotakPre – KotakPost	.01249	2.23659	.22479	–.43359	.45858	.056	98	.956

From the table it can be seen that, There is no significant difference in the stock performance of Kotak Mahindra Bank before and after the merger announcement

TABLE 4.14
Paired Sample t-test Kotak Mahindra (10 days CAR)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	KOTAKpre – KOTAKpost	–2.39076	3.77749	1.19455	–5.09301	.31150	–2.001	9	.076

From the table it can be seen that, There is no statistically significant difference in the stock performance of Kotak Mahindra Bank before and after the merger announcement

However, Since the significance is .076 it is inferred that the means of the period before and after the merger are much different from each other. This value is almost that of the level of significance at 5%.

TABLE 4.15
Paired Sample t-test Kotak Mahindra (2 days CAR)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	KOTAKlpre – KOTAKpost	–8.63722	3.38696	2.39494	–39.06784	21.79340	–3.606	1	.172

From the table it can be seen that, There is no statistically significant difference in the stock performance of Kotak Mahindra Bank before and after the merger announcement

However, Since the significance is .172 it is inferred that the means of the period before and after the merger are much different from each other. This value is not very distant from that of the level of significance at 5%.

TABLE 4.16
Paired Sample t-test Kotak Mahindra (100 days trading volume)

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	kotakpre – kotakpost	–37889.610	335549.689	33554.9689	–104469.95	28690.7282	–1.129	99	.262

From the table it can be seen that, there is no significant difference in the mean of trading volume in the 100-day period before and after the merger announcement. Since the average trading volume has not significantly increased or decreased post the merger announcement, the liquidity of the company has not changed as well. Kotak Mahindra Bank is the only bank in the study whose liquidity is not affected by the merger announcement.

E) SBI (2009)

TABLE 4.17
Paired Sample t-test SBI 2009 (100 days CAR)

Paired Samples Test

		Paired Differences					t	df	Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	SBIpre – SBIpost	.22003	3.27512	.32916	–.43318	.87325	.668	98	.505

From the table it can be seen that, there is no significant difference in the stock performance of SBI before and after the merger announcement. Since the significance is 0.505 it is inferred that the means of the period before and after the merger are not significantly different from each other.

TABLE 4.18
Paired Sample t-test SBI 2009 (10 days CAR)

Paired Samples Test

		Paired Differences					t	df	Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	SBIpre – SBIpost	-1.23271	2.26406	.71596	–2.85232	.38691	-1.722	9	.119

From the table it can be seen that, There is no statistically significant difference in the stock performance of SBI before and after the merger announcement

However, Since the significance is .119 it is inferred that the means of the period before and after the merger are much different from each other. This value is not very distant from that of the level of significance at 5%. The difference between the means is more as compared to the 100 days CAR t-test.

TABLE 4.19
Paired Sample t-test SBI 2009 (2 days CAR)

Paired Samples Test

		Paired Differences					t	df	Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	SBIpre – SBIpost	-4.05174	.43110	.30483	–7.92500	–.17848	-13.292	1	.048

From the table it can be seen that, There is a statistically significant difference in the stock performance of SBI before and after the merger announcement.

TABLE 4.20
Paired Sample t-test SBI 2009 (100 days average trading volume)

Paired Samples Test

		Paired Differences					t	df	Sig. (2–tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	SBIpost – SBIpre	130626.596	423681.067	42581.5494	46124.8971	215128.295	3.068	98	.003

From the table it is evident that there is a significant difference in the mean of trading volume in the 100-day period before and after the merger announcement. Since the average trading volume has significantly increased post the merger announcement, the liquidity of the company has increased as well.

Interpretation

The analysis of the duration of impact of the announcement show that there is an extremely short term impact of the announcement on the stock price behaviour. In most cases, the stock prices noticed a change within the first 2 days of the announcement The normal market forces and business conditions would continue to have an impact on the regular trading, but the impact of the announcement is very short lived. This may be attributed to the highly volatile nature of the Indian stock market.

The research findings indicated that in all cases of merger announcements there has been a change in the liquidity of the acquiring company. This has been measured using Paired Sample t-test on the basis of the average trading volume of the acquiring company in the 100 days period before the announcement and 100 days after the announcement. The results show that the liquidity of the acquiring company in the cases of mergers of HDFC and SBI (2009) have significantly increased, while that of SBI (2017) and ICICI have significantly decreased. Kotak Mahindra Bank, however, notices not significant difference in the liquidity position post the merger announcement.

Comparison between of Public Sector banks and Private Sector banks

Stock price behaviour

Table 4.21: Stock Price Behaviour between Public Sector banks and Private Sector banks   t-tests

|	2 days CAR t-test	10 Days CAR t-test	100 Days CAR t-test
Public Sector Megers:			
SBI (2017)	0.992	0.096	0.942
SBI (2009)	0.048	0.119	O.505
Private Sector Megers:			
HDFC	0.470	0.280	0.636
ICICI	0.224	0.877	0.403
Kotak Mahindra	0.172	0.076	0.956

Stock trading volume

Table 4.22: Liquidity (Average Trading Volume) between Public Sector banks and Private Sector banks   t-tests

	Trading Volume t-tests
Public Sector Mergers	
SBI (2017)	*.049*
SBI (2009)	*.003*
Private Sector Mergers	
HDFC Bank	*.017*
ICICI Bank	*.000*
Kotak Mahindra Bank	*.262*

The comparison of private and public sector banks with respect to the difference in the stock price behaviour shows that in the public sector bank mergers, there is no fixed trend noticed. However, the merger of SBI with State Bank of Indore notices a definite significant difference in the CAR of SBI in the short term period.

In the private sector mergers, the common behaviour noticed is that there is a higher difference in CAR between the pre and post period in the 10 days time window.

On comparing the difference in liquidity of the public and private sector banks, it is noticed that both cases of public sector merger notice a change in liquidity, one case being an increase in liquidity and the other being a decrease in the same. The same can be noticed in the case of private sector banks except Kotak Mahindra Bank which notices no change in the liquidity of the company.

Figure 4.1: SBI Pre merger and Post merger announcement CAR trend analysis
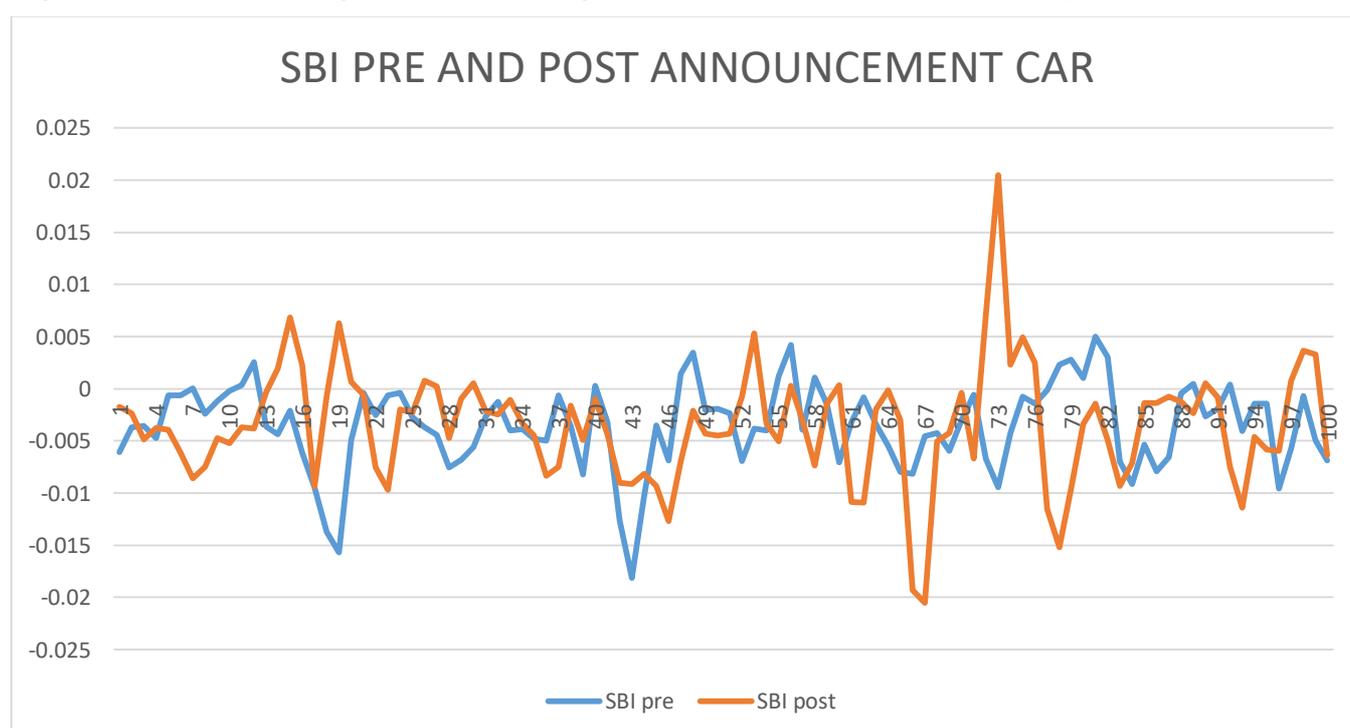
The graphical representation of the trend analysis of each company reveal that there is no overall significant difference in the stock price behaviour in the 100 days time window before and after the announcement. Hence, it is in alignment with the results obtained through descriptive statistics and t-test. However, the trends noticed were that most of the stocks were volatile with an exception of SBI. This may be attributed to the fact that SBI is a public sector bank while the remaining banks are private sector banks with higher volatility in the stocks. The post announcement trend is slightly more volatile in general, among all companies, but only to a small extent. It is noticeable in the initial periods after which various factors could be attached to volatility in the long run.

The graphical representation of the post merger announcement cumulative abnormal returns of all banks shows that in most cases, initially there are wide fluctuations, specifically a drop in the prices. This may be due to the fact that since they are acquiring companies, the acquiring company usually pays a premium for acquiring the target company using large amounts of cash or debt to finance the deal. This may result in the stock suffering.

V.   CONCLUSION

The research findings depict that there was no statistically significant impact of the announcement in the selected time periods. There was no significant correlation or difference between the pre and post period of each merger announcement in the 100 days time window, however, there is a correlation in the shorter time windows of 2 days and 10 days. Similarly, the difference gradually increases as the time window decreases where one case even witnesses a significant difference in the 2 days time window.

The analysis of the duration of impact of the announcement show that there is an extremely short term impact of the announcement on the stock price behaviour.

The research findings suggest that the announcement of mergers cause a statistically significant change in the liquidity of the acquiring company, where half the cases show a decrease or an increase in liquidity.

All the mergers selected occur in different time periods, but the returns of the acquiring companies follow a few similar trends after the announcement of merger as mentioned above.

Therefore, the study concluded that there were no long-term wealth creating projects in the banking industry for investors at the Bombay Stock Exchange since there was no significant or sustainable influence on share returns.

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