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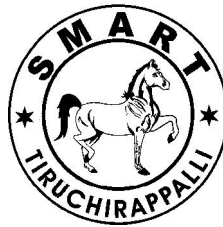
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**SCIENTIFIC MANAGEMENT AND ADVANCED RESEARCH TRUST
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**AN EMPIRICAL ANALYSIS OF THE STOCK PRICE BEHAVIOR ON
MERGER & ACQUISITION ANNOUNCEMENT (WITH SPECIFIC
REFERENCE TO MERGERS INVOLVING ICICI BANK)**

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Abstract

Indian banking system has been undergoing major changes in recent years. Different strategies have been adopted to tackle the demands of this new emerging operating environment. One such strategy has been consolidation via Mergers and Acquisitions (M & As). ICICI Bank has also been using M & A as a strategy to expand its geographical coverage, increasing customer base and for meeting regulatory requirements. It has been involved in four cases of M & As since the year 2000. The purpose of this study is to examine the effect of these M & A announcements on the stock price behavior of the ICICI Bank. It makes use of event study methodology to analyze the stock price performance.

Key Words: Merger and Acquisitions (M & A), Announcement Date, Market Model, Cumulative Abnormal Return (CAR), Indian Banking Sector, Event Study.

JEL CODE: D53, G21, G34

I. Introduction

The Indian banking system has been undergoing major changes in recent years that have affected both its structure and the nature of strategic interaction among banking institutions. Different strategies have been adopted to tackle the demands of this new emerging operating environment. One such strategy has been consolidation via Mergers and

Acquisitions (M & As). The Indian banking system is slowly but surely moving from a regime of ‘large number of small banks’ to ‘small number of large banks’.

Announcements of M & As immediately influences a company’s stock price as induced reaction in the stock market causes investors to revise expectations about the company’s future prospects. The changes in share prices pre or

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post announcement date, might be due to the information leakage to the markets, profit performance of banks involved or acquiring prices which may be different from market expectations.

II. Problem Statement

Limited empirical literature is available on the impact of stock price behavior on merger & acquisition announcement in the Indian banking sector. It is against this background that this study attempts to analyze the stock price behavior resulting from merger & acquisition announcement, with specific reference to mergers involving the ICICI Bank.

III. Objectives of Study

This study proposes to analyze the stock price behavior of the ICICI bank- pre and post announcement date of its mergers and acquisitions.

IV. Review of Literature

Goyal and Joshi (2012) have discussed the growth of ICICI Bank Ltd. through mergers and acquisitions. All the cases of M & As, involving ICICI Bank from 1996 to 2010, have been presented briefly. Their study shows how an organization can become a market leader by adopting some strategic tools like mergers and acquisitions.

Wong and Kui Yin Cheung (2009) investigated the effects of acquisition announcements on the pricing behavior of the Asian bidding and target firms over the period from 1 January 2000 to 31 December 2007. Their result indicates that information concerning a forthcoming corporate takeover is considered good news by the shareholders of bidding firms but not regarded as good news by the shareholders of the target firms. In addition, they concluded that abnormal return for the shareholders of bidding firms during the post-announcement period, depended on the type of acquisition.

Komoto (1999) examined the effect of mergers on corporate performance and stock prices. The stock price analysis was done by studying the movement of stock prices in 20 mergers during the 1990s for 40 business days before (t-40) and after (t+40) the crucial merger announcement. The effect on corporate performance was analyzed by studying several mergers among listed companies in the early 1990s. It was found that while mergers produced no significant effects on business performance, they can affect stock prices in either positive or negative ways depending on the industry. However, these results were not statistically verified.

Kuriakose, Raju and Kumar (2012) analyzed the strategic features and valuation of ICICI Bank and Bank of Rajasthan Merger. They used strategic similarity, factual analysis, contribution analysis and accretion/dilution analysis to arrive at conclusions. It is observed that both the banks were observed under most of the key parameters. There were only slight movements in the prices of both the banks during the merger-negotiation period. Hence it is presumed that the reason for the market price appreciation was information asymmetry or insider trading or both. The valuation of the merger and the swap ratio were also found to be fair.

McGowan, Jr. and Sulong examined the effect of M&A completion announcements on the stock price behavior for two anchor banks in Malaysia. The period of study was from 1998 to 2003 and it used event study methodology. The overall results of this analysis provided empirical evidence to support the hypothesis that M&A in the banking industry had a positive impact, based on the perception of the market.

Anand and Jagandeep (2008) analysed five mergers in the Indian banking sector to capture the returns to shareholders as a result of the merger announcements using the event study methodology. These included merger of Times Bank with the HDFC Bank, Bank of Madura with the ICICI Bank, ICICI with the

ICICI Bank, Global Trust Bank with the Oriental Bank of Commerce and Bank of Punjab with the Centurion Bank. They used market model and two-factor model in this study and found that the merger announcements in the Indian banking industry had positive and significant shareholder wealth effect, both for bidder banks and target banks.

V. Methodology

Scope of Study

This study made use of the common term, Merger and Acquisition (M & A), with reference to the Indian banking sector, to have a broader and more accurate view.

For the purpose of this study, four cases of mergers and acquisitions from the Indian banking, involving ICICI bank, were considered. ICICI bank has been using M & A as a strategy to expand its geographical coverage, increasing customer base and for meeting regulatory requirements since the year 2000. This study covered the following M & A cases of ICICI Bank.

1. Bank of Madura & ICICI Bank in 2000-2001
2. ICICI financial Institution and ICICI Bank in 2001-2002
3. Sangli Bank and ICICI Bank in 2006-2007
4. Bank of Rajasthan and ICICI Bank in 2009-2010

VI. Hypothesis

The abnormal returns around pre and post press announcement dates of the merger are similar.

Null Hypothesis

There is no difference between abnormal returns-pre and post press announcement date of merger.

Alternate Hypothesis

There is significant difference between abnormal returns- pre and post press announcement date of merger.

Tools used for data collection and analysis

This study used secondary data to arrive at the findings. The secondary data were collected from the Websites of banks involved in merger, website of BSE and various articles and reviews relating to the topic available on the Internet.

Market Model and Event Study Methodology were used to analyze the stock price performance. Certain statistical tools like mean, median and t-test were also used to analyze the data and arrive at the conclusion.

Event Study Methodology

In this study, Event Study Analysis was adopted for the purpose of analyzing the stock price performance. It assumes that all publicly available information was incorporated in the stock prices immediately on announcement.

For the purpose of this study, the first date of press announcement of the merger was taken as the event date (day zero). Table 1 lists the date of announcement of mergers of ICICI Bank. The first possible date when the news of merger was made public, was used. This date was obtained from either the news articles available on the internet or information available on the websites of the banks.

The stock price analysis was done for a period of 120 days i.e. 60 days pre & post press announcement date of the merger (0th day being the press announcement date). The day on which a merger announcement appeared in the press was designated as zero. Trading days prior to the merger announcement were numbered as -1, -2 and so on. The event days following the merger were numbered as +1, +2 and so on. The maximum time window involved in this study was -60 days to +60 days. Other short time windows of -30 to +30 and -5 to +5 days were also applied. Mean and median were calculated for each of these windows.

Returns of the stock were calculated by comparing the closing stock price on day t

with the closing stock price of the stock on day t-1, on BSE. The formula used is-

$$\text{Stock Return (percent)} = \frac{\text{Today's price} - \text{Yesterday's price}}{\text{Yesterday's price}} * 100$$

The expected rate of return on the security was found out by using the Market Model. The stock price and the sensdex data were taken from the website of Bombay Stock Exchange (BSE).

Market Model

The parameters under the Market Model were estimated by regressing daily stock return of the banks under the study on the BSE market index i.e. Sensdex, over the estimation period. Using these estimates, the return given by Market Model was the predicted return for the bank during the reference period.

The equation for the market model is –

$$R_{it} = a_i + b_i (R_{mt}) + e_{it}$$

Where R_{it} = return on security i in period t;

a_i = intercept (called “alpha”);

b_i = beta for security I;

R_{mt} = return on the market in period t; and

e_{it} = error term on security i in period t.

Beta is calculated by using the following formula:

$$\text{Beta} = \frac{n \sum XY - (\sum X)(\sum Y)}{n \sum X^2 - (\sum X)^2}$$

(Where X is the Market Index Return and Y is the stock return)

Alpha is calculated by using the following formula:

$$\text{Alpha} = \bar{y} - \text{Beta} (\bar{x})$$

The daily excess or abnormal return for the security is estimated by Abnormal Return = Actual Stock Return – Expected Stock return

$$XR_t = R_t - E(R_t)$$

Where t = Day relative to an event

XR_t = Excess return on the security for day t.

R_t = Actual Return on the security for day t.

$E(R_t)$ = Expected rate of return on the security for day t.

The Cumulative Abnormal Returns (CAR) of merger announcement in a 30-day (-30, +30) window were estimated for ICICI Bank by summation of the abnormal returns (AR_t) in the window.

The null hypothesis formulated was tested by using the t-test. Over a period of 30 days pre and post press announcement of the merger, the abnormal returns were calculated for ICICI Bank and t-test was applied at 95 percent confidence level to these abnormal returns. If the value given by the t-test is less than .05, then the null hypothesis could be rejected and it is concluded that there are significant differences in abnormal returns pre and post event date.

VII. Limitations of the Study

The main limitation of this study is that it was based on secondary data. Although efforts were taken to tap the data from authentic sources, there was no way to test the reliability of the data. The other limitation is that the present study dealt with mergers involving ICICI Bank only. The results were drawn on the basis of four cases of M & A in the Indian Banking Industry.

VIII. Results and Discussions

Case - I Bank of Madura & ICICI Bank

The takeover of Bank of Madura (BoM) by ICICI Bank followed the takeover of Times Bank by HDFC Bank. With this takeover, ICICI Bank became the largest private sector bank in terms of branch network and total business. The issues considered for the merger were customer base, geographical base and enhancing shareholder value. BoM was a suitable target as it had a strong presence in the

South. This deal provided ICICI Bank with synergies that enhanced its brand image and increased its branches in Southern India.

The stock price analysis was done for a period of 120 days i.e. 60 days pre & post press announcement date (0th day being the press announcement date i.e. 8th Dec 2000). For the Market Model, the values of parameters, Alpha and Beta, were found to be 0.18 percent and 1.14 percent respectively. The announcement day return was found to be 6.60 percent. Cumulative return for the period -5 to +5, shows that cumulative return increased from -4.25 percent to 4.88 percent (Refer **Table 1.1**). The excess return on announcement day was 5.56 percent, based on the Market Model (Refer **Table 1.4**). These positive excess returns indicate that market was reacting positively to the merger news.

The mean abnormal returns for the bank, based on the Market Model, show positive marginal gains in different time windows except a marginal loss for 5 day window. (Refer **Table 1.3**). The t-test was applied to establish if the merger had any effect on the stock prices of ICICI Bank in the short period of 60 days (-30, +30). The value of t-test for t+30 and t-30 days was 0.49807 (Refer **Table 5**). As the t-test value was more than .05, the null hypothesis was accepted at 95 percent confidence level. This means that this merger did not show any significant effect on the bank's return during the 30 days pre and post announcement period. The Cumulative Abnormal Returns (CAR) increased from -3.13 percent to 7.09 percent for the same period (Refer **Table 1.4**). This indicates positive performance of the stock.

The study found that there were some large excess positive returns during the period $t = -30$ to $t = -1$ (Refer **Table 1.4**). It can be said in general that large positive excess returns before the announcement day indicate that the market was anticipating the merger. This raises doubts that a section of the market was aware

of this impending merger. ICICI Bank price shot up in the month of November, 2000. However, other banks did not appreciate to such an extent. This shows that some investors who were aware of the merger, took advantage of the situation. Hence it can be interpreted that there was possible leakage of information.

Case II- ICICI Ltd and ICICI Bank

After consideration of various corporate restructuring alternatives in the context of the emerging competitive scenario in the Indian banking industry, the merger of the financial institution ICICI with ICICI Bank was considered an optimal strategic alternative for both the entities. On Oct 24th, 2001, ICICI and two of its subsidiaries –ICICI Personal Financial Services and ICICI Capital Services reverse merged with ICICI Bank and the amalgamation became effective on March 31, 2002. This reverse merger of ICICI Ltd with ICICI bank in 2002 was an important development in the Indian Banking Sector. It resulted in the creation of first universal bank in India.

This merger was announced on 25th Oct 2001. The share price analysis reveals that the announcement day return for ICICI Bank was found to be 6.14 percent. Also a huge increase in cumulative returns from -0.25 to +23.85 was reached for the period -5 to +5. (Refer **Table 2.1**). Beta and Alpha for the 120 day period were found to be 1.19 and -0.22 respectively. Beta value being greater than 1, indicates that the stock was very volatile at that time. This might be due to the market anticipating the merger.

The excess return on announcement day was 7.07 percent, based on the Market Model method (Refer **Table 2.4**). This indicates that the market welcomed the merger announcement. This is further evidenced by the finding that the mean abnormal returns for ICICI Bank indicated positive gains in the short run (-5 to +5 time window) (**Table 2.3**).

The t-test recorded a value of 0.429. (Table 5). This indicates acceptance of the hypothesis i.e. there is no difference in abnormal returns around pre and post announcement of the merger. The study also found that there were some large excess returns during the period $t = -30$ to $t = -1$. Hence it can be interpreted that there was possibly leakage of information about this merger (Table 2.4).

Case III-Sangli Bank and ICICI Bank

Sangli Bank Ltd. was an unlisted private sector bank, headquartered at Sangli in the State of Maharashtra, India. Its amalgamation with ICICI Bank in 2007 was expected to be beneficial to the shareholders of both entities. ICICI Bank was expected to gain Sangli Bank's network of over 190 branches and existing customer and employee base across urban and rural centres. The amalgamation was also expected to supplement ICICI Bank's urban distribution network. For Sangli Bank, it was beneficial as its shareholders would participate in the growth of ICICI Bank's strong domestic and international franchise. Also, this amalgamation would provide new opportunities to Sangli Bank's employees and give its customers access to ICICI Bank's multi-channel network and wide range of products and services.

Under the Market Model, the value of parameters, Alpha and Beta, were found to be 0.22 percent and 1.02 percent respectively. The share price analysis reveals that the announcement day return was found to be -6.4 percent. Cumulative return for the period -5 to +5 days shows small increase in cumulative return (Refer Table 3.1). The excess return on announcement day was -3.41 percent under the Market Model. The abnormal returns for ICICI Bank based on Market Model, show positive gains in different time windows except a marginal decline for the five day window (Refer Table 3.3). It can be interpreted that there were some concerns about this deal in the immediate period

surrounding the announcement. However, we find that the CAR increased from 1.11 percent to 2.54 percent for the 30 day window (Refer Table 3.4). This indicates that positive signs started showing away from the event date.

There was no large excess returns during the period $t = -30$ to $t = -1$ (Table 3.4). Hence it can also be interpreted that there was no possible leakage of information.

Case IV - The Bank of Rajasthan and ICICI Bank

The move to merge Bank of Rajasthan (BoR) with ICICI Bank in 2010 came in the wake of regulatory pressure mounted on the promoters of the BoR. It was expected to bring BoR out of troubled waters and also strengthen ICICI bank's network in northern as well as western India.

Under the Market Model, the values of parameters, Alpha and Beta, were found to be 0.05 percent and 1.17 percent respectively. The share price analysis reveals that the announcement day return was found to be -5.34 percent. Also, the decrease in cumulative returns in the short time period i.e. -5 to +5 days window (Refer Table 4.1) and negative excess return of -2.16 percent on announcement day (Table 4.4), indicate that concerns over dilution and integration might have pulled down ICICI Bank's shares in the immediate short period surrounding the announcement. However, the long-term positives soon overpowered the negatives as can be seen from positive gains in -60 to +60 days window (Table 4.2).

The abnormal return for 30 days prior to and 30 days after the announcement period indicate similar negative gains in all the windows (Table 4.3). The value of t-test for $t+30$ and $t-30$ days was 0.523296 (Table 5). Hence the null hypothesis was accepted at 95 percent confidence level. This means that confirming the popular belief, this merger also did not show any significant effect on the banks

return during 30 days pre and post announcement period.

The study also found that there was no large excess returns during the period $t = -30$ to $t = -1$. Hence it can be interpreted that there was no possible leakage of information.

IX. FINDINGS AND CONCLUSION

The following are the main findings of this study.

- The possibility of leakage of information on merger in the 30 day period prior to the announcement day, was found in the case of BoM-ICICI bank merger and ICICI reverse merger.
- In all cases, null hypothesis was accepted. It means that the abnormal returns pre and post announcement dates of mergers were found to be similar. Hence it can be said that merger did not show any significant effect on the bank's return during the 30 day pre and post announcement period.

The following main conclusion can be drawn from the analysis of stock price performance of cases discussed above.

- The significant positive abnormal returns in different windows suggest that the shareholders supported M&A deals. Shareholders expected future efficiency of the merger and hoped to gain from the M&A activity.
- In the post merger period, a downward trend in the cumulative returns implies a negative result of the merger.
- The size and direction of the price changes reflect how much uncertainty was present at the time of press date. In general, it can be said that large positive excess returns before the announcement day, indicate that the market was anticipating the merger i.e. there was leakage of information about the merger announcement.

In conclusion, mergers do not show any benefit over a short period of time. The positive results of the merger take some time to show.

X. Scope for Further Research

The present study analyzed the stock price behavior around merger & acquisition announcement, with specific reference to mergers involving ICICI Bank. Further area of research could be the study of other cases of mergers and acquisitions that had taken place in the Indian Banking Sector. Also, studies with similar objectives could be initiated with reference to other sectors like Pharmaceuticals, Information Technology (IT) etc.

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Table-1: Press Announcement Date of Merger

Merger Cases	Date
Bank of Madura & ICICI Bank	08-Dec-00
ICICI Ltd with ICICI Bank	25-Oct-01
Sangli bank and ICICI Bank	10 Dec 2006
Bank of Rajasthan and ICICI Bank	19 May 2010

Source-Compiled

Table-1.1: ICICI Bank's Daily Stock Return

Day t	Returns percent	Cumulative Returns
-5	-4.25	-4.25
-4	1.58	-2.67
-3	0.40	-2.28
-2	2.97	0.70
-1	1.20	1.89
0	6.61	8.50
+1	4.02	12.52
+2	-6.87	5.65
+3	0.38	6.03
+4	-0.11	5.92
+5	-1.03	4.88

Source-Calculated

Table-1.2: Mean & Median Returns percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	0.136	0.545	0.444
Median	-0.11	0.314	0.399

Source-Calculated

Table-1.3: Mean & Median Abnormal Return percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	0.081	0.116	-0.100
Median	0.04	0.104	0.560

Source-Calculated

Table-1.4: Abnormal Return from 30 days before the announcement day until day 30

Day	Abnormal Return percent	CAR	Day t	Abnormal Return percent	CAR
-30	-3.13	-3.13	1	1.86	17.48
-29	-1.82	-4.95	2	-6.81	10.67
-28	-1.64	-6.60	3	-1.57	9.10
-27	-0.50	-7.09	4	0.09	9.19
-26	3.17	-3.92	5	2.34	11.54
-25	2.90	-1.02	6	-0.75	10.78
-24	-1.61	-2.63	7	0.93	11.72
-23	-2.25	-4.87	8	0.24	11.95
-22	-0.22	-5.09	9	0.73	12.68
-21	0.30	-4.79	10	3.82	16.50
-20	1.12	-3.68	11	-4.43	12.07
-19	1.74	-1.94	12	-5.96	6.11
-18	-2.92	-4.86	13	5.01	11.11
-17	11.25	6.39	14	0.31	11.42
-16	12.89	19.28	15	-0.21	11.21
-15	-4.88	14.40	16	-0.74	10.47
-14	-3.40	11.00	17	-2.53	7.94
-13	0.62	11.62	18	2.02	9.95
-12	3.97	15.58	19	3.74	13.69
-11	-3.37	12.21	20	0.14	13.83
-10	0.82	13.03	21	-2.48	11.35
-9	0.83	13.85	22	0.29	11.64
-8	2.11	15.96	23	-1.81	9.82
-7	-0.93	15.04	24	-1.94	7.89
-6	-2.40	12.64	25	-2.20	5.69
-5	-5.40	7.24	26	5.09	10.78
-4	1.27	8.51	27	0.10	10.88
-3	-0.78	7.72	28	-3.40	7.48
-2	1.77	9.50	29	-1.09	6.39
-1	0.56	10.06	30	0.70	7.09
0	5.56	15.62			

Source-Calculated

Table-2.1: ICICI Bank's Daily Stock Return

Day t	Returns percent	Cumulative Returns
-5	-0.25	-0.25
-4	-0.05	-0.30
-3	4.62	4.32
-2	7.81	12.13
-1	2.91	15.04
0	6.14	21.18
+1	5.33	26.51
+2	-7.11	19.39
+3	-0.08	19.31
+4	2.31	21.62
+5	2.23	23.85

Source-Calculated

Table-2.2: Mean & Median Returns percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	-0.178	0.016	2.168
Median	-0.08	-0.010	2.306

Source-Calculated

Table-2.3: Mean & Median Abnormal Return percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	-0.004	0.053	2.347
Median	-0.17	-0.086	2.413

Source-Calculated

Table-2.4: Abnormal Return from 30 days before the announcement day until day 30

Day t	Abnormal Return percent	CAR	Day t	Abnormal Return percent	CAR
-30	0.18	0.18	1	6.05	21.98
-29	4.42	4.61	2	-4.84	17.14
-28	-0.78	3.82	3	-1.14	15.99
-27	-13.12	-9.30	4	0.12	16.11
-26	7.78	-1.52	5	2.34	18.46
-25	-0.09	-1.60	6	2.01	20.47
-24	-2.89	-4.49	7	1.53	22.00
-23	0.89	-3.61	8	1.21	23.21
-22	-1.13	-4.74	9	-4.39	18.82
-21	-0.09	-4.82	10	-1.97	16.85
-20	-5.88	-10.70	11	0.56	17.41
-19	-6.07	-16.78	12	0.28	17.69
-18	1.49	-15.29	13	-1.20	16.49
-17	2.18	-13.10	14	-4.00	12.49
-16	2.14	-10.96	15	-1.53	10.96
-15	-0.58	-11.54	16	1.36	12.32
-14	3.57	-7.98	17	-1.70	10.62
-13	-1.43	-9.41	18	1.45	12.07
-12	1.86	-7.55	19	1.16	13.23
-11	-3.08	-10.64	20	-1.79	11.44
-10	-0.25	-10.88	21	0.79	12.24
-9	4.84	-6.04	22	-1.71	10.52
-8	-0.72	-6.76	23	-0.93	9.59
-7	-1.83	-8.59	24	-0.22	9.37
-6	1.23	-7.36	25	-4.48	4.89
-5	2.41	-4.95	26	-2.48	2.41
-4	-1.25	-6.19	27	-2.39	0.03
-3	5.43	-0.77	28	-1.89	-1.86
-2	5.65	4.89	29	4.11	2.25
-1	3.97	8.86	30	0.99	3.24
0	7.07	15.93			

Source-Calculated

Table-3.1: ICICI Bank's Daily Stock Return

Day t	Returns percent	Cumulative Returns
-5	-0.51	-0.51
-4	-0.79	-1.30
-3	0.29	-1.01
-2	0.45	-0.56
-1	1.09	0.54
0	-6.14	-5.61
1	-2.08	-7.69
2	1.28	-6.41
3	4.51	-1.90
4	1.70	-0.20
5	0.02	-0.18

Source-Calculated

Table-3.2: Mean & Median Returns percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	0.296	0.430	-0.017
Median	0.26	0.403	0.292

Source-Calculated

Table-3.3: Mean & Median Abnormal Return for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	0.000	0.054	-0.173
Median	-0.06	-0.015	-0.011

Source-Calculated

Table-3.4: Abnormal Return from 30 days before the announcement day until day 30

Day t	Abnormal Return percent	CAR	Day t	Abnormal Return percent	CAR
-30	1.11	1.11	1	0.78	-1.12
-29	1.31	2.42	2	-0.41	-1.52
-28	-1.51	0.91	3	1.92	0.40
-27	-0.69	0.22	4	0.52	0.92
-26	-0.69	-0.47	5	-1.08	-0.15
-25	-1.49	-1.96	6	1.79	1.64
-24	0.15	-1.81	7	-0.27	1.37
-23	0.96	-0.85	8	-2.24	-0.87
-22	2.18	1.33	9	-0.09	-0.97
-21	2.01	3.35	10	-1.34	-2.31
-20	0.94	4.29	11	2.35	0.04
-19	0.97	5.26	12	0.58	0.62
-18	2.19	7.45	13	-0.01	0.62
-17	2.88	10.32	14	-1.34	-0.73
-16	-2.23	8.09	15	-1.28	-2.01
-15	-3.49	4.60	16	1.38	-0.63
-14	0.39	4.99	17	1.13	0.50
-13	0.52	5.51	18	0.59	1.08
-12	-0.55	4.96	19	0.82	1.91
-11	-0.73	4.23	20	-0.48	1.43
-10	-0.02	4.22	21	-3.27	-1.84
-9	-0.76	3.46	22	3.86	2.03
-8	-0.62	2.84	23	1.13	3.15
-7	-0.38	2.46	24	-0.68	2.47
-6	0.07	2.53	25	1.36	3.84
-5	-0.95	1.58	26	-0.27	3.56
-4	-1.47	0.11	27	-0.40	3.17
-3	-0.01	0.10	28	-0.23	2.94
-2	0.06	0.16	29	-0.34	2.60
-1	2.13	2.29	30	-0.06	2.54
0	-3.41	-1.12			

Source-Calculated

Table-4.1: ICICI Bank's Daily Stock Return

Day t	Returns percent	Cumulative Returns
-5	-0.64	-0.64
-4	1.43	0.79
-3	-1.20	-0.41
-2	-2.40	-2.81
-1	-0.23	-3.03
0	-5.34	-8.38
+1	-1.61	-9.99
+2	-0.53	-10.52
+3	1.52	-9.01
+4	-3.44	-12.45
+5	2.87	-9.58

Source-Calculated

Table-4.2: Mean & Median Returns percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	0.145	-0.207	-0.871
Median	0.06	-0.346	-0.639

Source-Calculated

Table-4.3: Mean & Median Abnormal Return percent for Different Time Window Period

	-60 to +60	-30 to +30	-5 to +5
Mean	-0.002	-0.240	-0.456
Median	0.00	-0.161	-0.316

Source-Calculated

Table-5: T-Test score

S.No	CASE	T-statistic
1	Bank of Madura & ICICI	0.498061
2	ICICI Ltd with ICICI Bank	0.429694
3	Sangli bank and ICICI Bank	0.864608
4	Bank of Rajasthan and ICICI Bank	0.523296

Source-Calculated

Table- 4.4: Abnormal Return from 30 days before the announcement day until day 30

Day t	Abnormal Return percent	CAR	Day t	Abnormal Return	CAR
-30	2.07	2.07	1	-2.46	-5.33
-29	-0.64	1.43	2	-0.06	-5.38
-28	-0.69	0.74	3	1.30	-4.09
-27	-1.20	-0.46	4	-0.32	-4.40
-26	-0.05	-0.52	5	0.15	-4.25
-25	-2.04	-2.56	6	-0.25	-4.50
-24	-0.43	-2.98	7	-0.07	-4.57
-23	-0.43	-3.41	8	0.02	-4.55
-22	0.11	-3.31	9	0.08	-4.47
-21	1.52	-1.79	10	-2.00	-6.47
-20	1.27	-0.52	11	-0.16	-6.63
-19	-0.17	-0.69	12	0.35	-6.28
-18	0.64	-0.06	13	-0.36	-6.63
-17	0.00	-0.06	14	-0.12	-6.75
-16	-1.63	-1.69	15	-0.76	-7.51
-15	-0.66	-2.35	16	-2.25	-9.76
-14	0.37	-1.99	17	0.92	-8.84
-13	1.54	-0.45	18	-0.39	-9.23
-12	-0.09	-0.54	19	-0.92	-10.16
-11	0.31	-0.22	20	1.96	-8.20
-10	-3.37	-3.59	21	-0.76	-8.96
-9	1.14	-2.46	22	0.21	-8.75
-8	-0.99	-3.44	23	1.02	-7.73
-7	-0.47	-3.91	24	0.47	-7.26
-6	2.22	-1.69	25	-0.02	-7.28
-5	-1.06	-2.75	26	-0.52	-7.80
-4	0.90	-1.85	27	-1.50	-9.30
-3	0.59	-1.26	28	-2.08	-11.38
-2	-1.35	-2.62	29	0.35	-11.03
-1	-0.56	-3.17	30	-1.19	-12.21
0	-2.16	-5.33			

Source-Calculated