



“Impact of Mergers and Acquisitions on Share Holders Wealth in Indian Banking Sector: Comparison between the effect of announcement date vs implementation date”

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Abstract:

The research paper is an attempt to analyse the shareholders wealth and return of the banks pre and post mergers. For these seven mergers has been taken into consideration from 2012 till 2022. Analysis has been made on understanding the changes in share prices of respective companies one month before and after announcement date and implementation of M&A respectively. T-test, ANOVA, Moving Average, R-Square, Correlation and Regression methods were used. Interesting results indicated that share prices pre and post announcement and implementation of the event has changed. Correlation was found between one-month pre and post announcement and implementation of the event for all the banks. Regression model was developed for predicting share prices one month after announcement and implementation date.

Key Words: M&A, Mergers & Acquisitions, M&A in Banking Sector, M&A effect on Announcement Date & Implementation Date

1. Introduction:

Indian banking industry has been undergoing through lots of changes in terms of mergers and acquisitions, rapid changes owing to technological advancements, varied services and many more. We can say that there have been 3 waves of M&A in India post liberalisation; After Narasimhan committee, Raghuram Rajan Committee and in the last decade post 2012.

2. Literatures Review:

Yadav & Jang (2021) in their paper titled “Impact of Merger on HDFC Bank Financial Performance: A CAMEL Analysis Approach” studied the merger of HDFC bank with Centurion bank of Punjab. Major objective was to understand the financial performance of the banks pre- and post-merger using CAMEL approach. Paired sample T-test was used to analyse the information for five years prior to merger (2003-2008) and five-year post-merger

(2009-2014). And the results stated that only Asset quality ratio has decreased rest other factors of CAMEL framework has increased post-merger, concluding that overall performance of the bank has increased.

S.Panboli, (2019) in their paper titled “Camel Research of Selected Private and Public Sector Banks in India” studied CAMEL approach on selected private and public sector banks in India. The survey looked at five banks from both sectors, including ICICI, HDFC, Axis, Yes Bank, and Kotak Mahindra (private banks) and SBI, PNB, BOB, UBI, and Canara Bank (public banks) (public banks). The data was collected over a five-year period, and the Camel Methodology was utilised to evaluate all bank performance. According to the findings, HDFC and Axis banks are outperforming the industry average. Overall, the results revealed that private sector banks outperformed public sector banks.

Farman Ali (2019) in the paper titled “Pre-Merger and Post-Merger Operating Performance of SBI” understood the financial performance and operational efficiency pre and post mergers. All the mergers with SBI has been taken into consideration for the study. Descriptive statistics and hypothesis testing and was used to analyse 10 years of data. The study revealed that the earning of the shareholders has been reduced but the value of the firms goes up after the merger of all associates. Later on, the researcher concluded that merger reduces the cost of banking operation for long terms perspective.

Muhammad, Waqas, & Migliori (2019) in the research paper titled “The impact Of M&A On Bank’s Financial Performance: Evidence from Emerging economy” studied with the objective of examining the impact of pre and post M&A on the bank’s financial performance Pakistan during the period (2004-2015). The data for 15 merged banks was included for the study for which data was analysed through regression analysis, ratio analysis, paired T test. And the study found out that liquidity, profitability and investment ratios have increased significantly post-merger however solvency ratio indicated negative effects which can be due to increased debt of the acquired bank.

Ombaka & Jagong (2018) in the paper titled “Mergers and Acquisitions on financial performance among selected commercial banks, Kenya” studied with the objective of understanding operational synergy, differential efficiency and effect of risk diversification on financial performance. For the study, 3 mergers and 6 acquisitions and 76 sample population were taken into consideration. The data was analysed through descriptive and regression analysis. Results showed that operational synergy, market share development and differential efficiency has led to increased financial performance.

Pandey (2018) in the paper titled “Restructuring and Consolidation in the Banking Sector” understood restructuring of banks by way of mergers and acquisitions. And the results mentioned that many Indian banks were working under risk from the monetary condition which made it essential for mergers and acquisitions.

Singh & Das (2018) in their paper titled “Impact of post-merger and acquisition activities on the financial performance of banks: a study of Indian private sector and public sector banks” studied the objective of evaluating the effects of merger and acquisitions on the financial performance of the selected banks in India. Megers of 8 banks were taken for the study. Data has been collected foor 6 years; 3 years pre merger (2010-11) and 3 years post-merger (2015-16). The study employed ratio analysis to analyse the data and founded those strategies and policies in procedural, physical and socio-cultural contexts were very important factors in the post-merger and acquisition process. Current ratio was constant even after merger for BOB (Bareilly Corporation Bank), OBC

(Nedungadi Bank Ltd) and PNB. Another finding was that 6-year ATR for HDFC bank experienced decline and an increase for OBC.

Chaudhuri (2018) in the paper titled “A Comparative Analysis of SBI and ICICI: Camel Approach” studied the merger of SBI Bank with ICICI Bank. Major objective was to analyse the performance of SBI and ICICI using the CAMEL approach. The author has analysed the information for five years from 2010-11 to 2015-16 and the result stated that ICICI has been a better performer in terms of profitability and management efficiency as compared to SBI for the study period.

Soundarya, Lavanya, & Hemalatha (2018) “in the paper Merger and Acquisition of Business Organization and its Impact on Human Resources” says that is Merger is the aggregation of two or more firms which results in continuous function of one firm and acquisition is an acquisition occurs when one company takes a controlling ownership interest in another firm, a legal subsidiary of another firm, or selected assets of another firm such as a manufacturing facility.

Bushra A. Abdulwahab (2017) examined the influence of mergers and acquisitions on the financial performance of Bahraini banks from 2004 to 2015. To determine the main differences in the financial performance of Bahraini banks, the CAMEL rating model technique and financial modelling were employed. The findings revealed that the financial performance of Bahrain's local banks has not improved much. Only the Bahraini Saudi bank's financial performance improved significantly after the merger. The total CAMEL ratios of all the banks, on the other hand, have not changed significantly.

Maam, Poku, & Frimpong (2017) wrote the paper titled “Business Consolidation and its impact On Financial Performance: Evidence from the Ghanaian Banking industry”. 2 mergers were included into the study: The Trust Bank (TTB) and Intercontinental Bank Ghana Limited by The Ecobank Ghana Limited and Access Bank Ghana Ltd respectively. Descriptive, regression, ratio analysis and correlational research were used to analyse the data of pre-merger period (2009 to 2011) and post-merger period (2012 to 2015). The study revealed that mergers and acquisitions (M&A) resulted to more than 80% growth in income and the net assets immediately after acquisition.

3. Research Methodology:

3.1 Objectives of The Study

3.1.1 Primary:

To study the difference between the announcement date and implementation date of Mergers and Acquisition on shareholders wealth.

3.1.2 Secondary:

- To analyze whether there are any difference and deviation in share prices of banks before and after merger.
- To analyze correlation between pre and post implementation vs effective dates of mergers and acquisitions.
- To develop regression model for banks predicting share prices one month before and after announcement date and implementation date.

3.2 Scope of the Study

The study involves analysing performance of merged banks pre- and post-merger or acquisition activity- for 7 banks. Long term data (5 years) has been collected for 2 mergers and for other 5 mergers, data has been collected for 3 years.

3.3 Research Gap

Based on the literature review it is seen that studies have been made on merger analysing the financial performance through ratio analysis. No studies were made on merger and acquisitions on comparison between announcement date and implementation date after 2012.

3.4 Research Design

The study is descriptive in nature since it shows the impact of mergers and acquisitions of banks on their performance. It adopts quantitative analysis methods using empirical data.

3.5 Data Collection Sources

3.5.1 Secondary data:

E-journals, websites, annual reports, articles and other online resources

3.6 Sampling Plan

3.6.1 Population

All the private and public sector banks that have been merged or acquired in India till date, pre and post liberalisation.

3.6.2 Sampling Unit

Mergers and acquisitions post 2012 i.e., last decade.

3.6.3 Sampling size

For the study, 7 mergers have been chosen.

3.6.4 Sampling method

Data will be collected through online sources like websites, e-journals, annual reports, etc.

3.6.5 Statistical tool

Data will be analysed using correlation, regression method, ANOVA and T-test.

4. Analysis and Interpretation

4.1 T-Test

4.1.1 T-test for 1 month after announcement of Merger

H_0 : There is no difference in average share price of one month before & after announcement of M&A.

H_1 : There is difference in average share price of one month before & after announcement of M&A.

Table 1: T Test Analysis before and after announcement date

Particulars	T-test for one month before and after announcement date	
BOB	P(T<=t) two-tail	0.0000
Indian Bank	P(T<=t) two-tail	0.0000
Kotak Bank	P(T<=t) two-tail	0.0000
PNB	P(T<=t) two-tail	0.0000
SBI	P(T<=t) two-tail	0.0000
Union Bank	P(T<=t) two-tail	0.0000
Canara Bank	P(T<=t) two-tail	0.0000

Analysis & Interpretation:

- For Bank of Baroda, there is difference in the average share price of one month before & after announcement of M&A, and so H_0 is rejected.
- Similarly, for Indian Bank H_0 is rejected since the value is less than 0.05 and so there is difference in the average share price of one month before & after announcement of M&A.
- For Kotak Mahindra Bank, there is difference in the average share price of one month before & after announcement of M&A.
- There is difference in the average share price of Punjab National Bank of one month before & after announcement of M&A, since value is less than 0.05 and H_0 is rejected.
- There is difference in the average share price of State Bank of India one month before & after announcement of M&A, since value is less than 0.05 and H_0 is rejected.
- Likewise, for Union Bank H_0 is rejected since the value is less than 0.05 and so there is difference in the average share price of one month before & after announcement of M&A.
- There is difference in the average share price of Canara Bank of one month before & after announcement of M&A, since H_0 is rejected.

4.1.2 T-test for 1 month after implementation of Merger

H_0 : There is no difference in average share price of one month before and after implementation of M&A.

H_1 : There is difference in average share price of one month before and after implementation of M&A.

Table 2: T Test analysis before and after implementation date

Particulars	T-test for one month before and after implementation date	
BOB	P(T<=t) two-tail	0.00425
Indian Bank	P(T<=t) two-tail	0.00001
Kotak Bank	P(T<=t) two-tail	0.00717
PNB	P(T<=t) two-tail	0.00000
SBI	P(T<=t) two-tail	0.0000
Union Bank	P(T<=t) two-tail	0.0000
Canara Bank	P(T<=t) two-tail	0.00000

Analysis & Interpretation:

- For Bank of Baroda, H_0 is rejected since significant value is less than 0.05 and so it indicates that there is difference in average share price of one month before and after implementation of M&A.
- Likewise for Indian Bank also, H_0 is rejected and so there is difference in average share price of one month before and after implementation of M&A.
- The significant value is less than 0.05 for Kotak Mahindra Bank so there is difference in average share price of one month before and after implementation of M&A.
- There is difference in the average share price of Punjab National Bank for one month before and after implementation of M&A.
- H_0 is rejected since significance value is less than 0.05 and so there exists difference between share prices one month after implementation of merger.

- Likewise, for Union Bank H_0 is rejected since the value is less than 0.05 and so there is difference in the average share price of one month before & after implementation of M&A.
- Difference has been found in the average share price of Canara Bank of one month before & after implementation of M&A, since H_0 is rejected and H_1 is accepted.

4.2 Seven day Moving average share price for 30 days

Table 3: Seven days moving average analysis before and after announcement and implementation date

Particulars	% Change in share prices after announcement of M&A	% Change in share prices after Implementation of M&A
BOB	-33.43%	9.97%
Indian Bank	-25.62%	21.46%
Kotak Bank	17.15%	-0.11%
PNB	-5.81%	-23.13%
SBI	2.24%	5.96%
Union Bank	-13.02%	-20.06%
Canara Bank	-16.03%	-30.14%

T-test indicated whether there is any difference in the share prices of the banks after announcing and implementing mergers. 7day moving average indicates the change in absolute numbers.

- For Bank of Baroda, T-test indicated that there is difference in share prices after announcing M&A and implementing the same. The percentage change in share prices after those events are -33.43% and 9.97% meaning that previously share prices reacted negatively but later on it increase.
- Similarly for Indian Bank T-test indicated changes in the prices and after announcing merger share prices reduced by -25.62% but later on after implementation of merger prices did increase.
- Likewise for Kotak Mahindra Bank, T-test indicated change in prices. After announcing merger share prices increased by 17.15%, maybe people were positive about the merger. But after the implementation of merger, share prices reduced by -0.11%. However, this change is miniscule.
- For PNB, share prices reduced by -5.81% after announcement of merger. The share price even deteriorated by -23.13% indicating that market reacted negatively of this event.
- SBI share prices increased by 2.24% in one month after announcement and further they increased by 5.96% after implementation maybe because market reacted positively and people were confident about this event.
- For Union bank T-test indicated changes in prices. After announcement share prices reduced by -13.02% and furthermore reduction was seen in prices by -20.06% after the implementation of the merger.
- Similarly for Canara bank, share price reduced by -16.03%. Major price reduction was seen after the implementation of merger where it decreased by -30.14%.

4.3 Correlation

4.3.1 Correlation between share prices one month before and after announcement of M&A.

H_0 : There is negative correlation between share prices one month before and after announcement of M&A.

H_1 : There is positive correlation between share prices one month before and after announcement of M&A.

Table 4: Correlation analysis before and after announcement date

Particulars	Correlation for announcement before and after M&A
BOB	-0.28242
Indian Bank	0.768408
Kotak Bank	0.650079
PNB	0.225068
SBI	0.519586
Union Bank	0.50246
Canara Bank	0.446306

According to LaMorte (2021), if the value lies between 0 to 0.4, then there is weak correlation, 0.4 to 0.6 then moderate correlation, 0.6 to 0.8 then strong correlation. And the correlation is very strong if value is between 0.8 to 1. Similarly for negative values if it is between 0 to -0.4, then there is negative weak relation, moderate negative correlation of value is between -0.4 to -0.6 and strong negative correlation if value is between -0.8 to -1.0.

Analysis & Interpretation:

- For Bank of Baroda there is negative correlation between share prices one month before and after announcement of merge indicating that it has increased initially and decreased later on or vice versa. H_0 is accepted.
- For rest of the 6 banks there is positive correlation between the prices. For Indian Bank, prices have increased before announcement and after announcement. There is strong correlation among the prices since the value is 0.76. H_1 is accepted.
- Similarly for Kotak Bank, there is also positive relation between the prices. There is strong relationship between the same since the value is 0.65. H_1 is accepted.
- For PNB, there is positive correlation among the prices, indicating that prices have either increased or decreased after announcement of the event. H_0 is rejected.
- 0.52 value of correlation in SBI indicates moderate relationship between the variables. If there are changes by 1 unit in share prices before announcement then prices will change by 0.52. H_1 is accepted.
- Similarly for Union bank, there exists positive relationship among the variables. H_1 is accepted.
- Likewise for Canara Bank, there is positive relationship among the variables since value is 0.44. So H_0 is rejected. The value indicates that if there is change in share prices by 1 unit one month before announcement then prices will change by 0.44 unit after announcement of merger.

4.3.2 Correlation between share prices one month before and after implementation of M&A.

H_0 : There is negative correlation between share prices one month before and after implementation of M&A.

H_1 : There is positive correlation between share prices one month before and after implementation of M&A.

Table 5: Correlation analysis before and after implementation date

Particulars	Correlation for implementation before and after M&A
BOB	-0.92141
Indian Bank	0.097099
Kotak Bank	0.026034
PNB	0.540368
SBI	0.64997
Union Bank	0.872089
Canara Bank	0.55919

Analysis & Interpretation:

- There exists negative correlation in share prices month before and after implementation of merger for Bank of Baroda and so H_0 is accepted.
- For Indian bank H_1 is accepted since there is positive correlation among the variables. But the correlation is weak.
- Similarly, for Kotak Mahindra Bank there is positive correlation among the variables and so H_0 is rejected.
- For Punjab National Bank, there is moderate positive correlation among the variables. If there is 1 unit change in prices before implementation then share prices would react by 0.54 after implementation.
- For SBI there is moderate positive correlation among the variables before and after one month of implementation of merger.
- Share prices are correlated positively for Union Bank but the correlation strength is strong since the value is 0.87.
- For Canara bank, there exists moderate positive correlation among the variables.

4.4 R-Square

4.4.1 R-square between share prices one month before and after announcement of M&A.

H_0 : The share prices have low dependency on the announcement date of M&A.

H_1 : The share prices have high dependency on the announcement date of M&A.

Table 6: R-square analysis before and after announcement date

Particulars	R-Square for announcement date before and after M&A
BOB	0.079761
Indian Bank	0.59045
Kotak Bank	0.422603
PNB	0.050656
SBI	0.26997
Union Bank	0.252466
Canara Bank	0.199189

According to Cheema, value of R square from .4 to .6 is acceptable in all the cases either it is simple linear regression or multiple linear regression. If you want to good value then according to the standards minimum value

of R square must be .6 as it will increase it will be the better and even the best value till 0.9 If the value of R square increases from .9 then it will be due to the auto correlation.

Analysis & Interpretation:

- For Bank of Baroda, the dependency of share prices on announcement is low. So H_0 is accepted.
- For Indian Bank, there is 59% dependency on the event. So, it can be termed as high dependency and H_0 is rejected.
- For Kotak Mahindra bank, there is 42% dependency on the announcement of merger. This is moderate dependency and so H_0 is accepted.
- For SBI, PNB, Union bank and Canara bank, H_0 is accepted since the R square values are low and so share prices are less dependent on the event of announcement of merger.

4.4.2 R-square between share prices one month before and after implementation of M&A.

H_{01} : The share prices are not dependent on the implementation date of M&A.

H_{11} : The share prices are dependent on the implementation date of M&A.

Table 7: R-square analysis before and after implementation date

Particulars	R-Square for implementation date before and after M&A
BOB	0.85
Indian Bank	0.009428
Kotak Bank	0.00068
PNB	0.2919
SBI	0.4224
Union Bank	0.76054
Canara Bank	0.31269

Analysis & Interpretation:

- The share prices are 85% dependent on the event of implementation of merger. This can be termed as high dependency and so H_0 is rejected.
- For Indian bank and Kotak Mahindra bank, the dependency is quite low or miniscule and so H_0 is accepted.
- The share prices are 29% dependent on implementation of merger for PNB. However, this dependency is low and so H_0 is accepted.
- For SBI and Canara bank, the dependency is 42% and 31% respectively. But the numbers are not significantly high so H_0 is accepted.
- Union banks share has higher dependency on the event of implementation of merger. So H_0 is rejected.

4.5 ANOVA

H_0 : there is no deviation in share price before and after one month of announcement date.

H_1 : There is a deviation in share price before and after one month of announcement date.

H_{01} : There is no deviation in share price before and after one month of implementation date.

H_{11} : There is a deviation in share price before and after one month of implementation date.

Table 8: ANOVA before and after announcement date and implementation date

Particulars	Implementation Date	Announcement Date
BOB	0.1305	0.0000
Indian Bank	0.0000	0.6097
Kotak Bank	0.0001	0.8914
PNB	0.2318	0.0021
SBI	0.0033	0.0001
Union Bank	0.0047	0.0000
Canara Bank	0.0134	0.0013

BOB

Implementation Date: Since the significance value is more than 0.05, H_0 is accepted and thus there is no deviation in share price of Bank of Baroda before and after one month of announcement date.

Announcement Date: Since the significance value is less than 0.05, H_0 is rejected and thus there is deviation in share price of Bank of Baroda before and after one month of implementation date.

Indian Bank

Implementation Date: Since the significance value is less than 0.05, H_0 is rejected and thus there is deviation in share price of Indian Bank before and after one month of announcement date.

Announcement Date: Since the significance value is more than 0.05, H_0 is accepted and thus there is no deviation in share price of Indian Bank before and after one month of implementation date.

Kotak Bank

Implementation Date: Since the significance value is less than 0.05, H_0 is rejected and thus there is deviation in share price of Kotak Mahindra Bank before and after one month of announcement date.

Announcement Date: The significance value is more than 0.05, so H_0 is accepted and thus there is no deviation in share price of Kotak Mahindra Bank before and after one month of implementation date.

PNB

Implementation Date: There is no deviation in share price of Punjab National Bank before and after one month of announcement date, since the significance value is more than 0.05 and so H_0 is accepted.

Announcement Date: There is deviation in share price of Punjab National Bank before and after one month of implementation date, since the significance value is less than 0.05 and so H_0 is rejected.

SBI

Implementation Date: There is deviation in share price of State Bank of India before and after one month of announcement date, since the significance value is less than 0.05 and so H_1 is accepted.

Announcement Date: There is deviation in share price of State Bank of India before and after one month of implementation date, since the significance value is less than 0.05 and so H_0 is rejected.

Union Bank

Implementation Date: There is deviation in share price of Union Bank before and after one month of announcement date, since the significance value is less than 0.05 and so H_0 is rejected.

Announcement Date: There is deviation in share price of Union Bank before and after one month of implementation date, since the significance value is less than 0.05 and so H_0 is rejected.

Canara Bank

Implementation Date: There is deviation in share price of Canara Bank before and after one month of announcement date, since the significance value is less than 0.05 and so H_0 is rejected.

Announcement Date: There is deviation in share price of Canara Bank before and after one month of implementation date, since the significance value is less than 0.05 and so H_0 is rejected.

4.6 Regression model

Multiple regression is a statistical technique that can be used to analyse the relationship between a single dependent variable and several independent variables. The objective of multiple regression analysis is to use the independent variables whose values are known to predict the value of the single dependent value. Each predictor value is weighed, the weights denoting their relative contribution to the overall prediction.

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_nX_n$$

Here,

Y = predicted or expected value of the dependent variable,

A = value of Y when all of the independent variables (X_1 through X_n) are equal to zero

b_1 through b_n are the estimated regression coefficients.

X_1 through X_n are n distinct independent variables.

In this study two regression models have been developed:

- (i) Regression model for forecasting share prices 1 month after announcement date of M&A in banking industry.
- (ii) Regression model for forecasting share prices 1 month after implementation date of M&A in banking industry.

Regression model for forecasting share prices 1 month after announcement date of M&A in banking industry.

$$Y = (-0.00094) + 0.1544x_1 + 0.1695x_2 + 0.6818x_3 + (-0.3787x_4)$$

Here,

Y = forecasted share price after one month of announcement date, dependent variable

Intercept = -0.00094

X_1 = Share price of Union Bank

X_2 = Share price Punjab National Bank

X_3 = Share price Canara Bank

X_4 = Share price Indian Bank

Regression model for forecasting share prices 1 month after implementation date of M&A in banking industry.

$$Y = 0.004973 + (-0.0737x_1) + 0.7404x_2 + 0.3662x_3 + (-0.1619x_4)$$

Here,

Y = forecasted share price after one month of implementation date (dependent variable)

Intercept = -0.00094

X_1 = Share price of Union Bank

X_2 = Share price Punjab National Bank

X_3 = Share price Canara Bank

X_4 = Share price Indian Bank

5. Findings

Table 9: Summary

Particulars	% Change Price		Corelation		R-Square		ANOVA	
	AD*	ID*	AD*	ID*	AD*	ID*	AD*	ID*
BOB	-33%	10%	-0.282	-0.921	0.080	0.850	0.131	0.000
Indian Bank	-26%	21%	0.768	0.097	0.590	0.009	0.000	0.610
Kotak Bank	17%	0%	0.650	0.026	0.423	0.001	0.000	0.891
PNB	-6%	-23%	0.225	0.540	0.051	0.292	0.232	0.002
SBI	2%	6%	0.520	0.650	0.270	0.422	0.003	0.000
Union Bank	-13%	-20%	0.502	0.872	0.252	0.761	0.005	0.000
Canara Bank	-16%	-30%	0.446	0.559	0.199	0.313	0.013	0.001

*AD = Announcement Date

*ID = Implementation Date

- T-test values for all the seven, mergers showed that there is difference in average share price of one month before & after announcement of M&A. Significance values for all the mergers resulted into less than 0.05 indicating that H_0 is rejected. One month after announcement of mergers, share prices of Bank of Baroda, Indian Bank, PNB, Union bank and Canara bank has reduced drastically. Whereas for Kotak Mahindra Bank and State Bank of India, share prices has increased.
- Similarly, T-test values for all 7 seven mergers showed that is difference in average share price of one month before and after implementation of M&A. One month after implementation of merger, share prices of BOB, Indian bank and State Bank of India has increased whereas for Kotak bank, PNB, Union bank and Canara bank prices has decreased.
- In Correlation, we can see there are five banks which performance had changed significantly on implementation date to announcement date.
- In R-square, we can see there are six banks which performance had changed significantly on implementation date to announcement date.
- ANOVA results showed that there is no deviation in share prices before and after one month of announcement date for BOB and PNB. On the contrary, Indian bank, Kotak bank, SBI, Union bank and Canara bank resulted into difference in share price before and after one month of announcement date. Similarly for one month after implementation, Indian bank and Kotak Mahindra bank resulted that there is no deviation in share prices. However remaining banks indicated otherwise.

- Regression model for forecasting share prices 1 month after announcement date of M&A in banking industry:

$$Y = (-0.00094) + 0.1544x_1 + 0.1695x_2 + 0.6818x_3 + (-0.3787x_4)$$
- Regression model for forecasting share prices 1 month after implementation date of M&A in banking industry:

$$Y = 0.004973 + (-0.0737x_1) + 0.7404x_2 + 0.3662x_3 + (-0.1619x_4)$$

6. Conclusion

To conclude, we can say there is vast difference on shareholders wealth. Short term analysis on announcement date and implementation date of M&A is also observed significant changes. From the study we can conclude that announcement and implementation of such events do affect the share prices of given banks and they can react positively or negatively to those events. For majority of the banks, lower to moderate correlation can be found baring 1-2 banks. We can say that for most of the banks, ANOVA result into showing that there exists deviation in share prices after announcement and implementation of such events. Merger has been proved fruitful for 3 Indian bank, Kotak Mahindra bank and Canara bank.

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