IMPACT OF MERGER AND ACQUISITION ANNOUNCEMENT ON STOCK PRICE BEHAVIOUR ON BANKING SECTOR OF INDIA

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ABSTRACT-- The main objective of bank merger is to increase the bank's value in one way or another. This research paper scrutinizes the Impact of Merger and Acquisition Announcement on Stock Price Behaviour on banking Sector of India. In this study attempt is made to explore the effect of announcement of merger and acquisition on stock price behaviour of select companies from banking industry. In this paper, market model event study methodology has been used to find out the impact of announcement and found significant impact on stock prices during the window estimation period.

Keywords—merger, announcement, acquisition, banking sector, india

I. INTRODUCTION

The economy of India is a developing mixed economy. Major contribution to national income is from service sector i.e. 50% of GDP.

After 1991 policy various reforms have been implemented. Because of which trade across the country is possible fluently. India became the most attractive destination for investors from all over the world with ample of opportunities for investment.

First priority for any business is to grow and diversify. Globalization has made it possible for domestic companies to prosper across the globe. There are many ways in which company can diversify, one such way is merger and acquisition.

When merger and acquisition method of diversification is adopted there are various possibilities that the overall structure of the company gets affected. This may be the one side of coin but also there are stakeholders who gets affected too. A merger is a combination of two or more companies to form a new company or continue with same company. Acquisition is one company taking over another company and there is no new company is formed. Intensifying competition in the market lead to the growing tendency of mergers and acquisition among the businesses. For being in competition various aspect needs to be taken care of like reduction in cost without affecting the quality of product or services. To survive in the competitive business battleground, merger and acquisition have become increasingly important method for companies.

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Companies adopt merger and acquisition for economic benefits. Acquiring firms may tend to increase their profitability in the long run. Share holders of the acquiring firm hopes to see a significant increase in their wealth as a long term gain.

II. LITERATURE REVIEW

Gayathri Geekiyanage and AthambawaJahfer (2017) studied Stock price reaction to merger and acquisition announcement: evidences from Colombo stock market. It was analysed using 26 offeror companies and 40 offeree companies listed on the Colombo stock exchange. In order to examine the impact on stock return, the standard event study was used. Study concludes that announcement have a negative impact on the firm performance from the offeree side and there is positive impact on the firm performance from the offerer side.

□ Zahoor Rehman, Arshad Ali and Khalil Zebran (2017) focused on study of the effect of merger and acquisitions on stock price behavior in banking sector of Pakistan. The study aims to explore the effect of M & A on stock price with Event Study analysis for the period 2002-2012. Overall study findings indicate that the market responded negatively towards the phenomenon of merger and acquisition on banking sector.

□ S. Nagendra, Satish Kumar and Laxon (2018), Impact of merger on stock market- A study on selected industries. Data regarding announcements were examined by taking daily adjusted market price data. Study concluded that buying share after the merger is risk less and return after the merger is more. In this study merger shows positive impact on share holders' wealth.

□ Pitabas Mohanty and Supriti Mishra (2014) studied Run-up in stock prices prior to merger and acquisition announcement: evidence from India, to analyse the monthly stock returns behavior of companies that had gone for mergers and acquisition. For the purpose of study obtained data for 131 acquisition (all cash financed) and 145 mergers (all stock financed).

□ Ronald Stunda (2014) studied the market impact of mergers and acquisitions on acquiring firms in the U.S. Oridinary Least Square (OLS) regression was used to test models for all hypothesis. The purpose behind this study is to examine the market response to mergers and acquisition from the acquiring firms prospective. This study indicates that firm in certain industries may be more positively impacted.

□ Isfandiyarshaheen (2006)studied Stock market reaction to acquisition announcement using event study approach. The research found, as hypothesized that abnormal returns of target firms are significantly different from acquiring firms.

ATM Adnan and Alamgir Hossain (2016) focused on Impact of mergers and acquisition announcements on acquiring and target firms stock price: an event analysis approach. Event study methodology is used to conduct

the research and investigation. The findings indicate pre announcement price run up for the both target and acquirer companies. On the other hand post announcement period price downgraded for the acquirer companies.

□ Elda Aimee Perez Garcia (2008) focused on study of Stock price reaction to merger and acquisition announcement in Canada. The period of study is from 2002-2007. Tools used for the study were CAPM, traditional univariate analysis, simple regression analysis. The study concludes that there is positive relation in the AR when the acquired firm purchase the target company with stock.

Amish BharatkumarSoni (2016) studied Mergers and acquisition in India and its impact on shareholder's wealth. The primary objective of study was measuring wealth of shareholders for short term view with statistical method. Statiscal tools ANNOVA and paired test is used to anlysed the data.

□ Bijoy Gupta and Dr. Parimalendu Banerjee (2017) focused on Impact of merger and acquisition on financial performance: evidence from selected companies in India. Objectives were to see the impact of M&A on operating performance, to compare and analyse the pre and post merger of liquidity position and profitability of the acquirer companies. Data collected has been analysed with SPSS. T-test and financial ratios are used for the purpose of analysis. The study concluded post merger profitability performance of selected sample declines and deteriorates.

□ Neha Verma and Dr. Rahul Sharma (2014) studied Impact of mergers and acquisition on firm'slong-term performance: a pre and post analysis of the Indian telecom industry. During the period 2001-02 to 2007-08, companies which have been merged or acquired were selected. Study concludes that it become important to generate elevated profits after the mergers and acquisition in order to rationalize the decision of M&A undertaken by the management to the share holders.

Ch. Balaji, K.S.Venkateswarakumar, G. Lalitha Devi, S. Pravallika, K.Harika (2019) conducted study on Impact of acquisitions on financial performance of selected software companies in India. Objectives were to examine the opportunities of software companies after the acquisition and an empirical estimation of financial status on TATA and Infosys companies based on their pre and post acquisition. The results of analysis were, after the acquisition the companies got high market share value when compared to the past position of the company.

□ Brajesh Kumar Tiwari (2014) studied Effectiveness of banks after M &A. For the study mean, standard deviation, growth rate and T-test techniques were used. Study is conducted on public sectors bank with the objective to evaluate the efficiency of mergers and acquisitions of the selected merged banks. Study found out that merger of some banks were more effective most of the variables as compared to other remaining banks.

□ Ruchita Verma and Janaki Singh Rathore (2018) has studied Mergers And Acquisitions In The Banking Sector: A Comparative Review Of The Indian And International Literature. For the study Prime Focus and Variable utilised for the empirical analysis was used. Study concluded that Indian research has not been able to keep up with the international standards in the fields of bank M&A.

III. RESEARCH GAP

From the literature review that was conducted for the study, it was found that there was no such study previously done to analyse the impact of mergers and acquisition announcements on share holders wealth and stock prices on Indian industries during the period from March 2014 to April 2019. Thus a gap is identified in this regard.

IV. STATEMENT OF PROBLEM

Since few studies have been undertaken in this area, and a gap was identified with regards to the impact of mergers and acquisition announcements on share holders wealth and stock prices on Indian industries during the period from March 2014 to April 2019. Therefore there is lack of information available to investors to decide upon. This study will help the investors to focus better on the market effect and to take correct decision. The study is thus an attempt to find out the "Impact Of Merger And Acquisition Announcement On Stock Price Behaviour On Banking Sector Of India".

V. SCOPE OF THE STUDY

The overall study scrutinizes whether merger and acquisition announcement generates any value to the investors, which can give the investors better vision to think and act accordingly when such event occurs.

VI. OBJECTIVES

• To study pre and post Abnormal Returns of the select banking companies in India.

• To explore the effect of announcement of merger and acquisition on stock price behavior of the select banking companies in India.

VII. HYPOTHESIS

H₀- There is no significant relation between mergers and acquisition announcements and stock prices.

VIII. METHODOLOGY

Tools and Techniques

To find out the impact of event i.e. merger and acquisition announcement on share price standard event study methodology is suitable tool.

Period of study

Announcement relating to mergers and acquisition the period from March 2014 till April 2019 will be covered. *Sample*

The data used for the study is purely based on secondary sources. Where daily data of select industries will be collected from various sources :- <u>www.moneycontrol.com,www.nseindia.com</u>, <u>www.economictimes.indiatimes.com</u>, <u>www.in.finance.yahoo.com</u>.

A sample of 06 banking companies were selected based on the banks that merged between 2014-2019. During this period 06 main banks were mereged, besides the sub mergers between SBI associates. For the purpose of study only the 06 main bank mergers were studied

Sr. No.	Name of the acquirer bank	Name of the acquire bank	Date of announcements
1	Kotak Mahindra Bank	ING Vyasa Bank	November 20, 2014
2	Bank of Baroda	Vijaya Bank Dena Bank	September 17, 2018
3	Punjab National Bank	Oriental Bank of commerce United Bank of India	August 30, 2019
4	Union Bank	Andhra Bank Corporation bank	August 30, 2019
5	Canara Bank	Syndicate Bank	August 30, 2019
6	Indian Bank	Allahabad Bank August 30, 201	

Table 1: INDUSTRIES:	-Banking	Industry
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IX. LIMITATIONS

- Secondary source data will be handled throughout the study as per the availability of data.
- The whole study for the chosen topic is confined only for 5 years i.e. 2014-19
- Merger of associate banks will not be considered for the study.

X. EVENT STUDY

1. Historical prices of the companies and Nifty index were collected from the period 2014-2019, window estimation is 200 days being the event period -40 and +40 and 0 is the announcement day.

2. The stock return and market return has been calculated using the following formula

<u>Today Price</u> – Yesterday Price

Yesterday Price

3. Expected return is calculated using the formula

 $E(R_{it}) = \alpha_i + \beta_i * R_{mt}$

Where, $E(R_{it})$ = the expected return for company i in t period;

 α_i = intercept term;

 $\beta_{i=a}$ regression constant; and,

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

4. Individual abnormal return

 $AR_{it} = R_{it} - E(R_{it}$

Where, AR_{it} = the abnormal return for company I in period t;

 R_{it} = the actual return for company i in period t;

 $E(R_{it})$ = the expected return for company i in t period

5. In order to ascertain significance of the normal return t-statistics has been calculated using the following formula

 $t_{AR} = AR_{it}$

CAR has been calculated using

 $CAR = CAR_{T-1} + AR_{it}$

Where, CAR = the cumulative abnormal return at time t;

 CAR_{T-1} = the cumulative abnormal return at time t-1; and

 $AR_{it} \ = the \ abnormal \ return \ at \ time \ t$

Table 2:	Kotak	Mahindra	Bank
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5	-0.00512	0.034976	0.431315	NO
10	-0.00113	0.080913	0.997796	NO
15	0.016759	0.132686	1.636246	NO
20	-0.01193	0.155086	1.91248	NO
25	0.002342	0.148996	1.837373	NO
30	-0.00467	0.136663	1.685288	NO
35	0.008242	0.218726	2.697261	YES
40	-0.00642	0.212251	2.617417	YES

Window	Abnormal	Cumulative AR	CAR t-test	Significance
	return (AR)	(CAR)		(With t-test)
-40	-0.00333	-0.00333	-0.04108	NO
-35	0.014351	-0.00283	-0.03484	NO
-30	0.008616	-0.0242	-0.29841	NO
-25	-0.0064	-0.02113	-0.26058	NO
-20	-0.01046	-0.02427	-0.2993	NO
-15	-0.00722	0.031013	0.38244	NO
-10	0.013838	0.029426	0.362877	NO
-5	-0.00995	0.01103	0.136014	NO
-1	-0.00156	-0.02414	-0.29769	NO
0	0.070611	0.046471	0.573068	NO



Figure 1: AR and CAR of Kotak Mahindra Bank

Source : self compilation based on NSE website

In case of Kotak Mahindra Bank it can be seen that Daily Abnormal Return was positive at pre announcement period for 19 days and at post announcement period 25 days and negative value for 21 days and 15 days for pre and post announcement period respectively. On the day of announcement it showed positive abnormal return. As per the calculation for the event window of -40, +40 t-test with CAR during the post announcement period there was no significant impact at all and at the pre announcement period it showed positive impact for +17, +18, +19, +33, +34, +35, +36, +37, +38, +39, +40 as the calculated t-value is greater than t-table value at 5% level of significance.

Window	Abnormal	Cumulative AR	CAR t-test	Significance
	return (AR)	(CAR)		(With t-test)
-40	-0.01958237	-0.01958237	-0.25869152	NO
-35	-0.00378183	0.076327224	1.00831546	NO
-30	-0.01725916	0.182559524	2.41168985	YES
-25	0.007555824	0.161577485	2.13450808	YES
-20	-0.01436094	0.141870008	1.87416383	NO
-15	-0.01044344	0.152350584	2.01261675	YES
-10	0.019473922	0.176833656	2.33604867	YES
-5	0.005728176	0.168233214	2.22243313	YES
0	0.031742047	0.1235929	1.63271537	NO
5	-0.00059774	-0.00864454	-0.11419815	NO
10	0.01828148	-0.01782857	-0.23552312	NO
15	-0.0043248	-0.01229211	-0.16238401	NO
20	0.019949435	0.037141713	0.49065801	NO
25	-0.01985494	0.097695983	1.29060597	NO

Table 3: Bank of Baroda

30	-0.02401046	0.147895077	1.95375759	NO
35	0.008918633	0.150673014	1.99045533	YES
40	0.010356484	0.173180808	2.28779297	YES



Figure 2: AR and CAR of Bank of Baroda

Source : self compilation based on NSE website

The table shows that at the pre announcement period the value of Abnormal Return (AR) is positive for 19 days and negative for 21 days. On the day of announcement i.e event day it showed the positive abnormal return. At the post announcement period it shows the inverse result i.e. 21 days positive abnormal return and 19 days negative abnormal return.

In the CAR calculation for the event window it can be seen that the Cumulative Abnormal Return (CAR) showed positive significant impact for -32, -31, -30, -29, -28, -27, -26, -25, -24, -23, -22, -21, -19, -18, -17, -16, -15, -14, -11, -10, -9, -8, -7, -6, -5, -4, -3, +27, +28, +29, +32, +33, +35, +36, +38, +39, +40 as the calculated t-value is greater than t-table value i.e. 1.96.

Window	Abnormal return (AR)	Cumulative AR (CAR)	CAR t-test	Significance (With t-test)
-40	0.015091	0.01509	0.106917	NO
-35	0.008189	0.031915	0.22612	NO
-30	0.00901	0.022086	0.156482	NO
-25	-0.02304	-0.03847	-0.27259	NO
-20	0.012697	-0.06392	-0.45289	NO
-15	-0.016	-0.07296	-0.51692	NO
-10	0.044451	-0.05568	-0.39451	NO

Table	4:	Canara	Bank
rance	т.	Canara	Dank

-5	0.018926	-0.10673	-0.7562	NO
0	-0.01171	-0.11905	-0.84345	NO
5	0.023661	-0.21907	-1.55211	NO
10	-0.017	-0.21053	-1.49161	NO
15	-0.02951	-0.28008	-1.98437	YES
20	-0.00711	-0.37764	-2.6756	YES
25	-0.02198	-0.35961	-2.54785	YES
30	0.017423	-0.36591	-2.59247	YES
35	0.026749	-0.33345	-2.36253	YES
40	0.015338	-0.30587	-2.16708	YES



Figure 3: AR and CAR of Canara Bank

Source : self compilation based on NSE website

It can be seen that the Daily Abnormal Return of Canara Bank was positive for 19 days and negative for 21 days at pre announcement period and at the post announcement period Daily AR was negative for 24 days and positive for 16 days.

In the CAR calculation for the event window it can be seen that the Cumulative Abnormal Return (CAR) for post period t-test with CAR does not created any impact and at the pre announcement it had impact from +15 till +40 but the impact was negative. On the event day there was no significant impact and also Daily AR was negative.

Window	Abnormal return (AR)	Cumulative AR (CAR)	CAR t-test	Significance (With t-test)
-40	0.007894	0.007894	0.035237	NO
-35	0.013205	0.015602	0.069645	NO

Table 5: Indian Bank

-30	-0.0104	-0.06177	-0.27574	NO
-25	-0.01721	-0.05375	-0.23994	NO
-20	0.003539	-0.16996	-0.75866	NO
-15	0.009946	-0.05854	-0.26129	NO
-10	-0.00016	-0.16179	-0.72221	NO
-5	-0.01827	-0.2208	-0.98561	NO
0	0.033824	-0.05771	-0.25761	NO
5	-0.00094	-0.23008	-1.02702	NO
10	0.002399	-0.23373	-1.04333	NO
15	-0.02365	-0.42618	-1.90238	NO
20	-0.03832	-0.60683	-2.70874	YES
25	-0.01475	-0.62192	-2.77611	YES
30	0.060642	-0.63528	-2.83573	YES
35	0.01357	-0.54535	-2.43433	YES
40	-0.00258	-0.53022	-2.36677	YES



Figure 4: AR and CAR of Indian Bank

Source : self compilation based on NSE website

In case of Indian Bank Daily Abnormal Return was negative for 24 days and 25 days at pre and post announcement period respectively similarly it was positive for 16 days and 15 days for pre and post announcement period respectively. On the day of announcement i.e. 0 day it showed positive abnormal return.

t-test with CAR for the above bank at the pre announcement period it had negative impact from +16 - +40 except +33 and at the post announcement period there was no significant impact.

Window	Abnormal	Cumulative AR	CAR t-test	Significance
	return (AR)	(CAR)		(With t-test)
-40	0.010591	0.010591	0.14555	NO
-35	-0.01441	-0.04221	-0.58007	NO
-30	-0.00814	-0.02815	-0.3868	NO
-25	0.004664	-0.07411	-1.01843	NO
-20	0.030387	-0.03729	-0.5125	NO
-15	-0.0453	-0.07814	-1.07385	NO
-10	0.036703	-0.03959	-0.54402	NO
-5	0.02359	-0.0772	-1.06094	NO
0	-0.0118	-0.08057	-1.10727	NO
5	0.014038	-0.10942	-1.50374	NO
10	-0.00933	-0.08695	-1.195	NO
15	-0.00886	-0.12534	-1.72249	NO
20	-0.03823	-0.21379	-2.93804	YES
25	-0.02425	-0.23574	-3.23974	YES
30	0.014748	-0.23299	-3.202	YES
35	0.015895	-0.2037	-2.79944	YES
40	0.026136	-0.13772	-1.8927	NO

 Table 6: Punjab National Bank



Figure 5: AR and CAR of Punjab National Bank

Source : self compilation based on NSE website

The table shows that at the post announcement period the value of Abnormal Return (AR) is positive for 19 days and negative for 21 days. On the day of announcement i.e event day it showed the negative abnormal return.

At the pre announcement period it depicts 23 days positive abnormal return return and 17 days negative abnormal return.

In the CAR calculation for the event window it can be seen that the Cumulative Abnormal Return (CAR) for pre announcement period showed negative significant impact for +16 till +39 as the calculated t-value is greater than t-table value i.e. 1.96.

Window	Abnormal	Cumulative AR	CAR t-test	Significance
	return (AR)	(CAR)		(With t-test)
-40	0.012942	0.012942	0.093535	NO
-35	-0.00552	-0.00493	-0.03564	NO
-30	-0.00569	-0.02691	-0.19447	NO
-25	-0.01502	-0.05407	-0.39073	NO
-20	0.003795	-0.07336	-0.53018	NO
-15	-0.01579	-0.09302	-0.67224	NO
-10	0.016059	-0.1112	-0.80365	NO
-5	0.000207	-0.15547	-1.12359	NO
0	-0.02538	-0.19477	-1.40758	NO
5	0.012694	-0.23189	-1.67586	NO
10	-0.01963	-0.20067	-1.45028	NO
15	-0.01707	-0.25781	-1.86319	NO
20	-0.01863	-0.38235	-2.76327	YES
25	-0.02799	-0.39793	-2.87586	YES
30	0.020175	-0.38995	-2.81816	YES
35	0.03864	-0.36427	-2.63259	YES
40	0.025061	-0.31123	-2.24925	YES

Table 7: Union Bank



Figure 6: AR and CAR of Union Bank

Source : self compilation based on NSE website

In case of union bank it can be seen that the Daily Abnormal Return at the pre announcement period is negative for 22 days and positive for 18 days and at the post announcement period show 15 days positive and 25 days negative. On the 0 day i.e. event day there was negative AR.

As per the calculation for the event window of -40, +40 t-test with CAR during the there is no significant impact at the post announcement period and at the pre announcement period there was a negative significant impact on +16, +17, +18, +19, +20, +21, +22, +24, +25, +26, +27, +28, +29, +30, +31, +32, +34, +35, +36, +37, +38, +39, +40.

XI. FINDINGS AND CONCLUSION

> Findings

As per the study conducted above the following findings have been noted

For Kotak Mahindra Bank there was no significant impact for pre event, but there was a positive impact seen for the post event in the studies

Bank of Baroda there was positive impact seen for pre event as well as post event

In the case of other banks i.e. Union Bank, Indian Bank, Punjab National Bank and Canara Bank there was no impact for the pre event but there was a significant negative impact seen for the post announcement event

> Conclusion

From the study that has been conducted for said paper reveals that after Merger and Acquisition announcements of all six companies stock showed positive as well as negative daily Abnormal return (AR) for pre and post announcement period. On the event day three bank showed positive value of Abnormal Return for Kotak Mahindra Bank, Bank of Baroda, Indian Bank and for remaining three banks showed negative value of AR.

The result and analysis with CAR t-test shows that there was a significant impact on the stock return; positive as well as negative.

This study was undertaken to test whether the companies has any impact of announcement. Hence it can be said that announcement has significant impact on stock price behaviour of banking industry and reject the null hypothesis.

REFERENCE

- Geekiyanage, Gayathri &Jahfer, Athambawa. (2017). STOCK PRICE REACTION TO MERGER AND ACQUISITION ANNOUNCEMENT: EVIDENCE FROM COLOMBO STOCK MARKET.7thInternational Symposium, SEUSL.
- Rehman, Zahoor & Ali, Arshad &Jebran, Khalil. (2017). The Effects of Mergers and Acquisitions on Stock Price Behavior in Banking Sector of Pakistan. The Journal of Finance and Data Science. 4. 10.1016/j.jfds.2017.11.005.
- 3. S. Nagendra, Satish Kumar and Laxon (2018), Impact of merger on stock market- A study on selected industriesInternational Journal of Pure and Applied Mathematics. Volume 119 No. 10 2018, 775-786

- 4. Mohanty, Pitabas& Mishra, Supriti. (2014). Run-up in Stock Prices Prior to Merger & Acquisitions Announcements: Evidence from India.
- 5. Stunda, Ronald. (2014). The market impact of mergers and acquisitions on acquiring firms in the U.S.. Journal of Accounting and Taxation. 6. 30-37. 10.5897/JAT2014.0142.
- 6. Isfandiyarshaheen (2006) Stock market reaction to acquisition announcement using event study approach.
- Adnan, Atm & Hossain, Alamgir. (2016). Impact of M&A Announcement on Acquiring and Target Firm's Stock Price: An Event Analysis Approach. International Journal of Finance and Accounting. 2016. 228-232. 10.5923/j.ijfa.20160505.02.
- Elda Aimee Perez Garcia (2008) Stock price reaction to merger and acquisition announcement in Canada. A Thesis Submitted to the University of North Carolina Wilmington in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration.
- Amish BharatkumarSoni (2016) Mergers and acquisition in India and its impact on shareholders wealth. IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 18, Issue 6.Ver. I (Jun. 2016), PP 79-86.
- Bijoy Gupta and Dr. Parimalendu Banerjee (2017) Impact of merger and acquisition on financial performance: evidence from selected companies in India. IMS Business School Presents Doctoral Colloquium – 2017 ISBN: 978-93-85895-57-9
- Verma, Neha & Sharma, Rahul. (2014). Impact of Mergers & Acquisitions on Firms' Long Term Performance: A Pre & Post Analysis of the Indian Telecom Industry. International Journal of Research in Management and Technology. 4. 11-19.
- Ch. Balaji, K.S.Venkateswarakumar, G. Lalitha Devi, S. Pravallika, K.Harika (2019) Impact of acquisitions on financial performance of selected software companies in India. International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9.
- 13. Kumar Tiwari, Brajesh. (2014). Effectiveness of Banks after M & A. American Journal of Industrial and Business Management. 04. 1-8. 10.4236/ajibm.2014.41001.
- Ruchita Verma & Janaki Singh Rathore (2018), Mergers And Acquisitions In The Banking Sector: A Comparative Review Of The Indian And International Literatur, journal of Banking, Information Technology and Management Volume 15 No. 1 January-June 201