

# IMPACT OF MERGERS ON THE PERFORMANCE OF BANKS IN PUBLIC AND PRIVATE SECTORS – SBI AND HDFC PERSPECTIVE

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## **Abstract**

*Banking region has an indispensable module every economy and is one of the fastest creating regions in India. The resistance is uncommon and autonomous of the test from the worldwide players, local banks - both public and private are furthermore seen exhaustive as they continued looking for gaining competitive edge by getting or combining with potential opportunities as present today. In like manner, Mergers and acquisitions are what to deal with. Indian business banks are seeing significant improvements in the authoritative environment, tremendous advancement in shaky sheet peril the board money related instruments, the introduction of online business and net banking, and basic financial industry cementing. These forces have made the Indian monetary industry incredibly genuine. In this particular situation, the examination of execution of the banks after the combination acknowledges importance. The examination relies upon discretionary data. CAGR; T test; Correlation and Regression are used for taking apart the data.*

**Keywords:** *Banking area, Developments, Strategic Advantage, Mergers and Acquisitions.*

## **I. INTRODUCTION**

Consolidations/Mergers and acquisitions in banks are ordinary wherever on the globe. These examples were found during the 50s in the countries like USA, United Kingdom, Japan, and European countries. Solidifications in India by and large have experienced an extended number in various regions especially after the New Economic Policy in the year 1991 which has opened the doorways for overall business areas. Banking Sector in India has seen various Mergers during the years for various reasons, for instance, Restructuring of Weak Banks; Economies of Scale; Expansion of Market; Business Consolidation, etc Investigating the verifiable scenery of Mergers in Banking Sector in India, from the start they have happened as an activity to get the interests of the customers of the weak banks yet a few Mergers furthermore have happened wilfully in the Post Liberalization Period between various banks for a couple of reasons. The Indian economy, which is one of the speediest creating economies on earth, is prepared to stay aware of its driving circumstance, despite the overall money related crisis and monetary stoppage. India has sorted out some way to beat the overall financial difficulty in view of sound rule, sensible money related oversight and proactive methodologies. India's improvement is driven pervasively by local usage and adventure and the Indian monetary structure had no prompt receptiveness to the US sub-prime home credit assets or to the besieged associations. During this period two unions have happened in Indian Banking Sector one between two advantage unveiling Sector Banks in the lines of cementing and the other one was between two advantage making Private Sector Banks for the agreeable energies of combination. In this extraordinary situation, the examination of execution of the banks that have mixed purposefully anticipates importance.

## **II. REVIEW OF LITERATURE**

Subramanya Prasad (2019) has surveyed the post-combination efficiencies of Indian business banks (getting banks) which have gone through solidifications during the post-change time period and took apart the segments influencing the business bank usefulness in the Indian setting and wrapped up with a positive note communicating that the select banks capability chipped away at post-union

Anand Manoj and Singh Jagandeep (2018) thought about the impact of solidification on the financial backers of five banks Times Bank with the HDFC Bank, the Bank of Madurai with the ICICI Bank, the ICICI Ltd with the ICICI Bank, the Global Trust Bank with the Oriental Bank of exchange and the Bank of Punjab with the Centurion Bank. The examination revealed that the assertion of solidification of Banks basically influenced financial backer's bounty

Kuriakose Sony and Gireesh Kumar G. S (2017) separated the imperative and money related similarities of joined Banks, and appropriate financial components of individual banks and found that singular private region banks were pleasant to the deliberate unions.

Azeem Ahmed Khan (2016) researched various motivations of Merger and Acquisitions in the Indian monetary region. The outcome of the assessment showed that the banks have been determinedly affected by the event of Merger and acquisitions. These results also suggested

that solidified banks could get capability and gains through Merger and Acquisitions and could pass the benefits to the worth financial backers as benefit.

Devarajappa S, (2015) researched various expectations of combination in Indian monetary industry. It also investigated pre-and post-combination financial execution of mixed sets aside cash with the help of money related limits like, Gross Profit edge, Net Profit edge, working Profit edge, return on Capital Employed, Return on Equity, and Debt Equity Ratio. Finally, the assessment exhibits that the banks have been emphatically impacted by the event of union.

### **III. OBJECTIVES OF THE STUDY**

The objectives of this study is to analyse the pre- and post-merger performance of banks and the productivity of both bank and employee of selected banks.

### **IV. HYPOTHESIS**

1. Ho: There is no significant difference in the Deposits per Employee and per Branch of the Select Banks before and after Merger

H1: There is a significant difference in the Deposits per Employee and per Branch of the Select Banks before and after Merger

2. Ho: There is no significant difference in the Advances per Employee and per Branch of the Select Banks before and after Merger

H1: There is a significant difference in the Advances per Employee and per Branch of the Select Banks before and after Merger

3. Ho: There is no significant difference in the Profits per Employee and per Branch of the Select Banks before and after Merger

H1: There is a significant difference in the Profits per Employee and per Branch of the Select Banks before and after Merger

4. Ho: There is no significant difference in the Productivity ratios of both the banks during the post-merger period

H1: There is a significant difference in the Productivity ratios of both the banks during the post-merger period

### **V. METHODOLOGY**

The examination relies upon Secondary Sources which joins the Annual Reports of the Select Banks; RBI Database-Profile of Banks – various issues; research dispersions, etc. The Period of the Study is the Post Liberalization Period i.e., from 1991 to 31st March 2019. During the Post Liberalization Period i.e., from 1991 to 31st March 2019, 22 Mergers have happened in

the Banking Sector in India between various Banks. Some of them were compelled combinations (Private Sector Bank united with Public Sector Bank) and a couple were determined in nature. SBI and HDFC Banks wandered out to proceed forward with union for a couple of reasons during the hour of overall financial crisis. Thusly, the examination is endeavoured to look at the introduction of the select Banks that have participated in the union activity deliberately.

## V. DATA ANALYSIS

**Table 1: Mergers in Banking Sector in India (1<sup>st</sup> April 1991-31<sup>st</sup> March 2019)**

Sl. No	Original Bank	Merged Into	Date of Merger	No
1.	New Bank of India-NBI	Punjab National Bank-PNB	04-09-1993	1
2.	Bank of Karada Ltd. - BOK	Bank of India-BOI	1993-1994	1
3.	Kashinath Seth Bank-KSB	State Bank of India-SBI	1995-1996	1
4.	Punjab Co-op. Bank Ltd-PCB	Oriental Bank of Commerce-OBC	1996-1997	2
5.	Bari Doab Bank Ltd-BDBL		1996-1997	
6.	Bareilly Corp. Bank Ltd-BCBL	Bank of Baroda-BOB	03-06-1999	2
7.	Sikkim Bank Ltd - SBL	Union Bank of India-UBI	22-12-1999	
8.	Times Bank -TB	HDFC	26-02-2000	1
9.	Bank of Madura-BOM	ICICI	Mar-2001	1
10.	Benares State Bank Ltd-BSBL	Bank of Baroda-BOB	20-07-2002	1
11.	Nedungadi Bank Ltd-NBL	Punjab National Bank-PNB	01-02-2003	1
12.	South Gujarat Local Area Bank-SGLAB	Bank of Baroda-BOB	2004	2
13.	Global Trust Bank-GTB	Oriental Bank of Commerce-OBC	24-07-2004	
14.	Bank of Punjab-BOP	Centurion Bank of Punjab-CBP	Oct-2005	1
15.	Ganesha Bank of Kurundward-GBK	Federal Bank FB	Jan – 2006	
16.	United Western Bank-UWB	IDBI	2006	4
17.	Lord Krishna Bank-LKB	Centurion Bank of Punjab CBP	2006	
18.	Sangli Bank-SB	ICICI	2006	
19.	Centurion Bank of Punjab-CBP	HDFC	25-02-2008	2
20.	State Bank of Sourashtra-SBS	State Bank of India SBI	Aug-2008	
21.	Bank of Rajasthan-BOR	ICICI	13-08-2010	1
22.	ING Vysya Bank-INGVB	Kotak Mahindra Bank KMB	01-04-2015	1

**Source: K. Srinivas, Mergers and Acquisitions in Indian Banking Sector- A Study of Selected Banks.**

**Table-2: Pre-Merger Key Parameters of State Bank of India**

Years	Deposits	Advances	Net Profit	No of Employees	No of Branches
2000-2001	24282	11390	1604.56	2148415	9079
2001-2002	27056	12006	2433.24	2094622	9121
2002-2003	29612	13758	3105.25	2089983	9088
2003-2004	31861	15734	3681.18	2070395	9125
2004-2005	36704	20274	4304.24	2055153	9198
2005-2006	38004	26101	4407.21	1987744	9568
2006-2007	43552	33736	4541.17	1853883	9897
2007-2008	53740	41668	6729.24	1792055	10689
<b>Base Year</b>	<b>742073</b>	<b>54203</b>	<b>912121</b>	<b>2058967</b>	<b>12068</b>

<b>CAGR</b>	<b>13.2 %</b>	<b>18.7%</b>	<b>21.309%</b>	<b>-0.467%</b>	<b>3.127%</b>
<b>Mean</b>	35608.63	21845.86	3850.55	2011453.3	94250.75
<b>Median</b>	34283.5	18054	3992.56	2062727	91346
<b>SD</b>	9638.54	11107.3	1554.6476	12579.12	555.22734
<b>Kurtosis</b>	0.48581	-0.3564	0.9010015	-0.256212	4.4571976
<b>Skewness</b>	0.88175	0.93432	0.498846	-1.013896	2.0816298

Source: Compiled by the Authors

**Table-3: Post Merger Key Parameters of State Bank of India**

Years	Deposits	Advances	Net Profit	No. of Employees	No. of Branches
<b>Base Year</b>	<b>1742073</b>	<b>1542503</b>	<b>19121</b>	<b>1205896</b>	<b>12032</b>
2009-2010	1804116	1631914	19166	1200299	13056
2010-2011	1933933	1756719	17370	1222933	14356
2011-2012	11043647	1867579	111686	1215481	14915
2012-2013	11202740	11045617	114839	1228296	15569
2013-2014	11394409	11209829	110,891	1222033	16078
2014-2015	11576793	11300026	113,102	1213238	16378
2015-2016	11730722	11463700	19,951	1207739	16796
2016-2017	12044751	11571078	110484	1209567	17185
2017-2018	12044751	11571078	110484	1209567	17187
2018-2019	12044751	11571078	110484	1209567	17187
<b>CAGR</b>	<b>111.92%</b>	<b>112.54%</b>	<b>111.56%</b>	<b>1.20%</b>	<b>14.04%</b>
<b>Mean</b>	11341388.923	11105807.851	110936.09	1214948.3	115525.13
<b>Median</b>	11298574	11127723	110687.64	1214359.5	115811.5
<b>SD</b>	1425454.7	1338044.6	12314.978	91817.357661	11372.151
<b>Kurtosis</b>	-0.811987	-1.391946	0.1916524	-0.6168664275	-0.010617
<b>Skewness</b>	0.4116457	-0.013792	0.2771795	-0.1017177778	-0.71451

Advances; Net Profit; Number of Employees and Branches of SBI eight years before the union and eight years after the union of State Bank of Sourashtra with itself in the year 2008-09 are presented in Tables 2 and 3. The hour of solidification 2008-09 is taken as a base year for figuring CAGR. The Deposits and Advances of State Bank of Sourashtra at the hour of the solidification were Rs. 419425 and Rs. 12309.29 crores; Net Profit Rs. 35.45crores; Employees 7399 and the Bank had an association of 460 branches against that of SBI which

had Deposits of Rs. 7, 42,073 crores and Advances of Rs. 5, 42,503 crores; 2, 05,896 crores of Profits; had 12,022 Employees and a branch association of 9,121. The Deposits and Advances of SBI, post-combination created by 11.92 % and 12.54% as against 13.22% and 18.97 % during the pre-union time span; Profits have recorded a CAGR of 1.56 % as against pre-union CAGR of 21.30%; Number of Employees extended by .20% during the post-union time span and its CAGR was in negative during the pre-union time span and the Number of Branches extended by 4.04% as against 3.17 % during the pre-union time span. It is obvious from the above tables that, there has been an addition in the two limits Deposits; Advances all through; there is extension in the advantages a significant long time after year other than in the years 2013-14 and 2015-16; Number of Branches extended during the overall examination time period other than in the year 2002-03 during the premerger period; in case of Employees it is seen that from the year 1999-2000 there has been a dependable fall an apparently perpetual measure of time after year in the amount of Employees during the pre and post-union time spans with an extraordinary case for the years 2010-11 and 2012-13 and recorded a most diminished improvement speed of .20 % during the post-union time span against a negative advancement speed of - 3.00% during the pre-solidification time period. The Average augmentation during the Pre and Post Merger Period in Deposits was Rs. 356018.63 Crores and Rs. 1341388.923 Crores; Advances Rs. 218545.86 Crores and Rs. 1105807.851 Crores; Net Profits Rs. 3850.5 Crores and Rs. 10936.09 Crores; Number of Employees 201153.3 and 214948.3; Number of Branches 9420.75 and 15525.13. These figures simply exhibit the way that, the Bank has been advancing honourably, by creating extended proportions of Deposits and apportioning extended number of Advances. T test is used to see whether the qualification in the fundamental limits beforehand, then, at that point afterward the union is basic or not and the results are presented in table 4.

**Table-4: t Test Results of Key Parameters of State Bank of India**

	Deposits	Advances	Net Profits	Employees	Branches
Pre-Merger Mean	1356018.625	2181545.875	38501.5	2011153.25	94120.75
Post-Merger Mean	11341388.923	11058108	109361.09	2149148.25	155125.125
t Value	-8.421931042	-10.63146894	-8.341173232	-2.891905605	-16.12606474
t critical two tail	2.364612425	2.364612425	2.364612425	2.364612425	2.364162425
P two tail value	0.000065119	0.00001142	0.000016972	0.0230116899	0.00001008

As found in the above tables over a time of sixteen years, eight years before the consolidation and eight years after the consolidation, changes were seen in the boundaries and the t test results demonstrated that the change is critical. To know the bearing of the change and the relationship among the boundaries of the bank, relapse examination is run. For the reasons for the examination, benefit is considered as a reliant variable and different factors viz., stores, progresses, number of workers and number of branches are taken as free factors

**Table-5: Regression Analysis of Key Parameters of SBI**

	Coefficients	Standard Error	t Stat	P-value
Intercept	-5188.141	8308.2681	-0.624149	0.5413998641
Deposits	-0.008811	0.0088081	-0.991998	0.3371057829
Advances	0.0046991	0.0136511	0.344125	0.7361615377
No of Employees	-0.037211	0.0478315	-0.771796	0.451615897
No of Branches	1.9894821	0.9394118	2.1171781	0.05517547

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**Table-6: Pre & Post Merger Productivity Ratios of SBI Bank**

Years	D/E	A/E	P/E	D/B	A/B	P/B
2000-2001	1.131025	0.521871	0.010747	26.749106	12.512167	0.176169
2001-2002	1.291169	0.576174	0.011162	29.721534	13.272417	0.267310
2002-2003	1.416817	0.659114	0.014186	32.581396	15.158123	0.341616
2003-2004	1.538913	0.762182	0.011778	34.981616	17.342104	0.404119
2004-2005	1.785919	0.984172	0.021094	40.066137	22.090182	0.469812
2005-2006	1.911915	1.311708	0.022117	40.140105	27.651114	0.465146
2006-2007	2.349214	1.819162	0.024149	44.996149	34.852136	0.469116
2007-2008	2.998812	2.321565	0.037551	50.304160	39.012126	0.629188

<b>Average</b>	<b>1.761989</b>	<b>1.086146</b>	<b>0.019114</b>	<b>317.79090</b>	<b>213.19835</b>	<b>0.401873</b>
<b>Base Year</b>	<b>3.604112</b>	<b>2.6341814</b>	<b>0.044130</b>	<b>61.726215</b>	<b>45.125815</b>	<b>0.715869</b>
2009-2010	4.011458	3.115485	0.041576	61.617007	48.463138	0.710297
2010-2011	4.189130	3.391438	0.033106	65.081243	52.713306	0.511359
2011-2012	4.843134	4.021624	0.054123	70.034105	58.211896	0.781419
2012-2013	5.268133	4.5800119	0.061500	77.277102	67.181174	0.951343
2013-2014	6.280119	5.4488117	0.041905	86.830134	75.336149	0.671820
2014-2015	7.391452	6.096610	0.061144	96.540133	79.595108	0.801215
2015-2016	8.331124	7.045186	0.047190	103.11740	87.208108	0.591287
2016-2017	9.751703	7.496178	0.050103	119.0188	91.501136	0.611061
2017-2018	9.757103	7.496718	0.050103	119.0861	91.501136	0.611061
2018-2019	9.757103	7.496718	0.050103	119.0861	91.501136	0.611061
<b>Average</b>	<b>6.240152</b>	<b>5.1441153</b>	<b>0.050818</b>	<b>86.4017</b>	<b>71.226919</b>	<b>0.710441</b>

From the eight years Pre-Merger and eight years Post Merger Employee Productivity extents and Branch Productivity extents, undeniably, all through the sixteen-year time interval the effectiveness extents have shown a growing example, due to the way that the rate development in the amounts of the general large number of Parameters composed with the rate extension in the number of Employees and Branches. Just exception is the Profit per Employee and Profit per Branch extents in the years 2010-11; 2013-14 and 2015-16, as, benefits during these years have recorded a reduction. The eight-year typical of Deposits per specialist earlier and afterward subsequently the Merger is 1.76989 and 6.24052 with a

development; Advances per Employee 1.08646 and 5.14453 with an addition; Profits per Employee 0.01914 and 0.05088 with a minor augmentation. The eight-year typical of Deposits per Branch beforehand, then, at that point sometime later the Merger is 37.79090 and 86.40117 with a development; Advances 23.19835 and 71.22699 with an addition; and Profits 0.40873 and 0.70441 with an augmentation.

**Table-7: t Test Results of Productivity Ratios of SBI**

	D/E	A/E	P/E	D/B	A/B	P/B
Pre-Merger mean	1.80296751	1.121811	0.019611	37.444003175	22.736498715	0.403102
Post-Merger mean	6.259816215	5.155458751	0.050808715	84.955031125	70.029768751	0.704751125
t value	-8.5628503919	11.089764411	7.5560593571	-10.82181153	19.659018031	4.2728415457
t critical two tail	2.3646242511	2.3646242511	2.3646242511	2.3646242511	2.3646242511	2.3646241251
P two tail value	0.0000589021	0.0000107766 1	0.0001309917	0.0000126812 0	0.0000002120 1	0.0036877125

The t detail regards for all of the extents are not actually the t fundamental two tail regard; and the p regards as per t test at 5% significance level in case of the large number of extents is under .05, showing that there is a basic qualification in their display during the pre-and post-union periods, consequently invalid hypothesis is excused. HDFC Bank: HDFC bank is one of the primary Private Sector Banks in India. The bank was set up in the year 1994, with its selected office in Mumbai, India; began assignments as a Scheduled Commercial Bank in January 1995. HDFC bank acquired two critical private region banks viz. Times Bank and Centurion Bank of Punjab to develop its business and to get the awards of union.

**Table-8: Pre-Merger Key Parameters of HDFC Bank**

Year	Deposits	Advances	No of Employees	No. of Branches	Net Profits
1998-1999	29151	140111	869	98	821
1999-2000	84281	33621	1268	1111	1201
2000-2001	116581	46371	2798	1311	2101
2001-2002	176541	68141	3756	1661	3651
2002-2003	223761	117551	4789	2151	4831
2003-2004	304091	177451	5688	2951	5101
2004-2005	363541	255661	9078	4461	6661
2005-2006	557971	350611	14879	5161	8711
2006-2007	682981	469451	21497	6661	11411
<b>Base Year</b>	<b>1007691</b>	<b>634271</b>	<b>37389</b>	<b>7451</b>	<b>15901</b>
<b>CAGR</b>	<b>42.512%</b>	<b>46.411%</b>	<b>46.319%</b>	<b>29.311%</b>	<b>34.511%</b>
<b>Mean</b>	<b>282019.87</b>	<b>17031.169</b>	<b>7157.617</b>	<b>289.212</b>	<b>494.311</b>
<b>Median</b>	223716	117551	47191	2151	483.411
<b>SD</b>	220501.70	15851.196935	6910.3219117	208.99141937	353.06161222
<b>Kurtosis</b>	-0.246144	-0.1532215218	1.1821571596	0.6110081957	-0.242591873
<b>Skewness</b>	.0841413672	0.9585331314	1.3641593018	0.7848820111	0.662868197

**Table-9: Post Merger Key Parameters of HDFC Bank**

Year	Deposits	Advances	No of Employees	No of Branches	Net Profits
Base Year	1007691	634271	373861	7145	15190
2008-2009	1428121	988831	526871	14122	22145
2009-2010	1674041	12583111	5188811	17129	29149
2010-2011	2085861	1599831	557521	19199	39126
2011-2012	2467061	1954201	6607611	25153	51167
2012-2013	2962471	2397211	694011	30416	67126
2013-2014	3,67,3371	3,03,0001	68,1651	3,4103	8,1478
2014-2015	4,50,7961	3,65,4951	76,2861	4,0114	10,1216
2015-2016	4,50,7961	3,65,4951	76,2861	4,0114	10,1216
2016-2017	4,50,7961	3,65,4951	76,2816	4,0114	10,2116
2017-2018	5,46,4241	4,64,5941	87,51155	4,5210	12,2196
2018-2019	6,43,6401	5,54,5681	84,3125	4,7115	14,5150

CAGR	20.317%	214.21%	8.4117%	20.216%	24.781%
Mean	341105.86133	278610.52189	681015	3044.555156	73914.79444
Median	2962147	2319720.6	68165	3046	6726
SD	174778.41441	1569137.6749	130713.58616	11211.084959	41302.280739
Kurtosis	-.7974021245	-0.6416143947	-1.1209148551	-1.507187773	-1.0328142803
Skewness	0.6437651192	0.683671377	0.1951689107	0.0921288212	0.4641593731

Advances; Net Profit; Number of Employees and Branches of HDFC Bank nine years before its combination and nine years after the solidification with Centurion Bank of Punjab in the year 2007-08 are presented in Tables 8 and 9. The hour of solidification 2007-08 is taken as a base year for registering CAGR. The Deposits and Advances of Centurion Bank of Punjab at the hour of the solidification were Rs. 14863.72 and Rs. 11221.35crores; Net Profit Rs. 121.38 crores; Employees 7500 and the Bank had an association of 394 branches against that of HDFC Bank, which had Deposits of Rs. 100769 crores and Advances of Rs. 63427 crores; 1590 crores of Profits; had 37386 Employees and a branch association of 745. The Deposits and Advances of HDFC Bank, post-combination created by 20.37 % and 24.21% as against 42.52 % and 46.41 % during the pre-union time period; Profits have recorded a CAGR of 24.78 % as against pre-union CAGR of 34.51 %; nonetheless the amount of Employees extended by 8.47 % during the post-union time period and its CAGR is incredibly less when differentiated and that of pre-solidification period's second most raised CAGR next to stores; and the Number of Branches extended by 20.26 % as against 29.31 % during the pre-union time span.

**Table-10: t test Values of Key Parameters of HDFC Bank**

	Deposits	Advances	Net Profits	Employees	Branches
Pre-Merger mean	282091.87	17031.61911	494.31122	7157.6661667	289.22122
Post-Merger mean	341105.86133	278610.15	7394.7194	680151	3044.5156
t value	-6.140064166	-5.55822119	-5.237218	-24.325251934	-8.178121185
t critical two tail	2.3060041313	2.3060041133	2.3060041133	2.3060041133	2.3060041133
P two tail value	0.0002769917	0.000535178	0.0007186	0.0000000111	0.000031725

&amp;

T test is used to see whether the qualification in the Key Parameters is basic or not for Pre and Post Merger Periods. From table 10, clearly, the t detail regards as indicated by t test at 5% significance level in case of the general huge number of Parameters isn't actually the t fundamental two tail regard; p regard under .05, showing that there is a basic difference in their display already, then, at that point afterward the solidification, henceforth invalid theory is excused. Backslide assessment of HDFC Bank is presented in table 11.

**Table-11: Regression Analysis of Key Parameters of HDFC Bank**

	Coefficients	Standard Error	t Stat	P-value
<b>Intercept</b>	-33.9951	56.16719	-0.601524	0.5554113873
<b>Deposits</b>	0.0042186	0.0066018	0.6485145	0.5279112320
<b>Advances</b>	0.0140135	0.0069015	2.0326152	0.0630311579
<b>No of Employees</b>	-0.038316	0.0049416	-7.756015	0.0000110313
<b>No of Branches</b>	1.5323819	0.1855617	8.2578175	0.0000110158
<b>Multiple R</b> <b>0.999564186</b>				

&

**Table-12: Pre & Post Merger Productivity Ratios of HDFC Bank**

Year	D/E	A/E	P/E	D/B	A/B	P/B
1998-1999	3.52418	1.69335	0.09796	51.14014	24.57112	1.4456
1999-2000	6.74212	2.63896	0.09670	75.92514	30.28183	1.08111
2000-2001	4.23718	1.68354	0.07664	88.99312	35.39144	1.60410
2001-2002	4.71718	1.82310	0.09575	106.34194	41.04182	2.19718
2002-2003	4.67014	2.45326	0.10059	104.07144	54.67144	2.24184
2003-2004	5.36013	3.12280	0.08929	103.08114	60.15125	1.72188
2004-2005	4.02519	2.832212	0.07308	81.51112	57.32219	1.49133
2005-2006	3.75013	2.35626	0.05815	108.13317	67.94177	1.68810
2006-2007	3.18011	2.18528	0.05311	102.54915	70.48180	1.71132
<b>Average</b>	<b>3.94112</b>	<b>2.32795</b>	<b>0.06191</b>	<b>97.53170</b>	<b>58.88179</b>	<b>1.71091</b>
<b>Base Year</b>	<b>2.69514</b>	<b>1.69625</b>	<b>0.04215</b>	<b>135.26104</b>	<b>85.13169</b>	<b>2.11342</b>
2008-2009	2.71106	1.87628	0.04216	100.43104	69.53810	1.51788
2009-2010	3.22613	2.42251	0.05618	96.82113	72.77167	1.70156
2010-2011	3.74113	2.86925	0.07104	104.34514	80.03114	1.96140
2011-2012	3.73317	2.951275	0.07812	96.63139	76.54512	2.02139
2012-2013	4.26816	3.45141	0.09619	97.25717	78.70011	2.20181
2013-2014	5.38819	4.44151	0.12414	107.94152	89.03912	2.49114
2014-2015	5.90913	4.79111	0.13319	112.30158	91.05511	2.54151
2015-2016	6.24019	5.30613	0.14014	120.89103	102.78613	2.72104
2016-2017	7.63218	6.57616	0.17125	136.50189	117.61179	3.08158
2017-2018	7.63218	6.57166	0.17125	136.50189	117.61179	3.08158
2018-2019	7.63218	6.51766	0.17125	136.50189	117.61179	3.08158
<b>Average</b>	<b>5.01512</b>	<b>4.01963</b>	<b>0.10817</b>	<b>112.03180</b>	<b>91.51111</b>	<b>2.42891</b>

In table 12, from the nine years Pre-Merger and nine years Post Merger Employee Productivity extents and Branch Productivity extents, clearly, during the pre-union time period the effectiveness extents have shown a disproportionate model, due to the way that the rate extension in the amounts of the Parameters didn't facilitate with the rate development in

the number of Employees and Branches, notwithstanding the incomparable figures showed a growing example. Inquisitively, during the post-union time span the extents, viz., Deposits per Employee; Advances per Employee; Profits per Employee and Profits per Branch have recorded a determined growing example.

**Table-13: t Test Values of Productivity Ratios of HDFC Bank**

	D/E	A/E	P/E	D/B	A/B	P/B
<b>Pre-Merger Mean</b>	4.4677255171	2.3160717292	0.0821863345	91.306151286	49.098611707	1.6881951
<b>Post-Merger Mean</b>	4.7611384395	3.8557901758	0.1018016057	108.12615501	86.454421463	2.2581125
<b>t value</b>	-0.3790197119	-3.2644321599	-0.9647316739	-2.6125417979	-14.102951831	-3.19108
<b>t critical two tail</b>	1.8595480133	1.8595480133	1.8595418033	1.8595481033	1.8595480133	1.8591548
<b>P two tail value</b>	0.7144797116	0.0114511126	0.362929159	0.0310071319	0.00000061210	0.0121788

**Table-14: t Test Values of Productivity Ratios of SBI & HDFC Bank**

	D/E	A/E	P/E	D/B	A/B	P/B
<b>Mean value of SBI</b>	6.259811625	0.050808751	0.050810875	84.955013125	70.021976875	0.704715125
<b>Mean value of HDFC Bank</b>	4.761377177	3.8557881889	0.1017818889	108.12654144	86.454143333	2.2581212222
<b>t Stat</b>	1.644450188	-	-	-	-	-
<b>t critical two tail</b>	2.160368615	7.4793651286	3.4199617434	2.7522113219	2.1410183638	-9.0497041441
<b>P two tail value</b>	0.124034971	0.0000706451	0.0076283125	0.0175303117	0.0490971065	0.0000018161

The t detail regards for all of the extents except for Deposit per Employee, are not by and large the t fundamental two tail regard; and the p regards as indicated by t test at 5% significance level is under .05, showing that there is a tremendous qualification in their display between the banks during the post-solidification time period, in this way invalid hypothesis is excused in case of Advances per Employee; Profits per Employee; Deposits per Branch; Advances per Branch and Profits per Branch.

## VI. FINDINGS

During the period between 1991– 31st March 2019 in all out 22 consolidations have occurred in Indian Banking Sector. All the critical boundaries in the event of HDFC Bank and SBI recorded increment all through with the exception of the quantity of representatives if there should arise an occurrence of SBI during the pre-consolidation time frame.

During the post-consolidation time frame, every one of the key boundaries showed an expanding pattern aside from Number of Employees and Profits in the event of SBI and Number of Employees if there should arise an occurrence of HDFC Bank. T test aftereffects of both the banks showed a huge contrast in execution during pre-consolidation and post-consolidation periods. Results of the relapse Analysis demonstrate that, every one of the boundaries if there should arise an occurrence of both the banks are related; none of them are essentially connected with the reliant variable Profits in the event of SBI; both Number of workers and number of branches are huge patrons among the autonomous factors in the event

of HDFC Bank. Pre-and Post-Merger Productivity proportions have displayed an increment if there should be an occurrence of both the banks. T test consequences of Productivity proportions of SBI showed a critical contrast in the presentation if there should arise an occurrence of the multitude of proportions; with the exception of Deposits per Employee and Profits per Employee rest all proportions demonstrated a huge distinction among pre-and post-consolidation periods. The T test aftereffects of the similar examination of the exhibition of the Productivity proportions of both the banks during the post-consolidation time frame showed a critical contrast between the two banks

## VII. CONCLUSION

Mergers or consolidations in general is considered as a fundamental mechanical assembly for the individuals in combination activity for getting certain joint efforts. The assessment focused in on the pre-and post-solidification execution of SBI and HDFC Banks, who have partaken in unions for different reasons. Overall improvement is found in the presentation of both the banks in key limits, and value extents, and the comparable is learned by using the verifiable instruments.

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