Consolidation and Acquisition of Nationalized Banks and their Effects on Profitability and Shareholder Value: A Holistic Purview

*Jeyaprabha V. M.**

ABSTRACT

Maidavolu Narasimham, the RBI's 13th Governor, proposed banking reforms in a committee report more than two decades ago, and his proposal may finally see the light of day. He proposed merging public-sector banks in 1991 in order to strengthen them. In India, bank consolidation has taken two forms. One of the most visible has been the voluntary merger of banks, which has been driven by a desire for synergy, growth, and operational efficiency. This study conducts Paired T-test on Pre-M&A and Post M&A to measure the impact of the profitability and shareholder values of Major Public sector banks during the last three financial years where most of the Mergers and Acquisition happened. To that end, it examined whether acquired banks post-consolidation in India improved their positions in terms of Profitability and Shareholder value compared to Pre-M&A. And the study also looked for distinctions between the performance of the banks post-consolidation. However, the Results show a dichotomy between Pre-Merger and post-merger of the nationalized banks. For this purpose, Fourteen Financial parameters are used in order to determine the change in profitability and shareholder value more precisely and accurately.

***Keywords**: Merger; Consolidation; Profitability; Shareholder values; Operational synergies.*

1.0 Introduction

The recommendations of the Verma committee were considered very critical since they suggested some harsh measures for revitalizing the public sector banks. The committee recommended that it could be better to have five-strong banks than 20 weak banks. These recommendations were taken up by the government as early as FY 2008-09 when the first consolidation took place between the state bank of India and its subsidiaries or associate banks. However, the major leap took place in FY 2018-19 when a flurry of mergers was ushered in to streamline and strengthen the functioning of some commercial banks. It was when the major consolidation takes place between 4 public sector banks i.e., the merger of Bank of Baroda with Dena Bank and Vijaya Bank. Following this same route in the next financial year FY2019-20, four major consolidations of 10 public sector banks took place.

**Student, Banking and Financial Services, SRM Institute of Science and Technology, Chennai, Tamil Nadu, India (E-mail: jeyaprabhavm03@gmail.com)*

They are namely Punjab National bank with Oriental bank of commerce and United bank of India, Canara bank with Syndicate bank, Indian Bank with Allahabad Bank, and Union Bank of India with Andhra Bank and Corporation Bank (Table 1). So, in this context, it would be relevant to evaluate the performance of banks post-merger to understand the effect of such consolidation on profitability and shareholder value. Consolidation is primarily proposed to increase productivity, efficiency, and economic growth after a six-year slump, as well as to reduce the number of bad loans and non-performing assets (NPAs). The country currently has twelve public sector banks. By doing so, the government reduces the number of public sector banks and the expenses associated with capital infusion, i.e., cost-cutting; next, it improves the asset quality of the banks; and finally, the government's capital infusion to meet the capital adequacy ratio limits and Basel norms will be significantly reduced, as government capital infusion is primarily used to maintain these norms.

Table 1: Recent Mergers in Public Sector Banks

S.no.	Acquirer BANK	Target Banks	Type of Consolidation	Merger / Acquisition Date	Quarters post Consolidation
1.	Bank of Baroda	Vijaya bank	Merger	01/04/2019	June19, Sep 19, Dec19, March20, June20, Sep 20, Dec20, March21
		Dena Bank			
2.	Punjab National Bank	Oriental Bank of Commerce	Merger	01/04/2020	June20, Sep20, Dec20, March21
		United bank of India			
3.	Canara Bank	Syndicate Bank	Merger	01/04/2020	June20, Sep20, Dec20, March21
4.	Indian Bank	Allahabad Bank	Merger	01/04/2020	June20, Sep20, Dec20, March21
5.	Union Bank of India	Andhra Bank	Merger	01/04/2020	June20, Sep20, Dec20, March21
		Corporation Bank			

P value: Significant at 5% level
Sources: Based on author's calculation

1.1 The objective of the study

The objective of the study is to evaluate the effects of mergers and acquisitions on the financial performance of the selected Indian banks. A post-merger study is carried out on selected parameters to assess the impact of mergers and acquisitions of banks in terms of profitability and shareholder value. In order to achieve this, the following objectives of the study are carried out as follows:

- To evaluate the performance of banks post-consolidation by conducting a comparative analysis of performance prior to and after the consolidation, in order to assess the banks' strength and future prospects.
- To determine whether acquirers outperform non-acquirers.

2.0 Literature Survey

Several research has been conducted to investigate the impact of M & As on various areas of the banking industry. Moreover, numerous investigations have revealed the diverse motivations for such a calculated move.

Rhoades (1993), mergers and acquisitions have an impact on efficiency and profitability in banking. For the study, a total of 33 local and international bank-to-bank mergers were examined. Domestic mergers, according to the study, lead to greater cost efficiency, though they have minimal impact on profitability. In spite of this, the study concludes that cross-border relations do not promote efficiency, but rather a profitability. Vennet, (1996), Mergers are a popular strategy to develop operational synergies, but their success is contingent on the potential for economies of size and breadth. If these economies occur, a bank's scale expansion would be accompanied by a cost increase that is not proportional to its size. Pilloff (1996), consolidated banks can generate more value than two individual pre-merger banks. Ravenscraft & Scherer (1987); Avkiran (1999). A merger, according to classic merger theory, is the transfer of scarce corporate resources from one organization to another that can function more efficiently and put those resources to better use. Onikoyi *et al.,* (2014); Zahid & Shah (2014); Anand & Singh (2008); Campa & Hernaldo (2006); Scholtens & Wit (2004); Resti & Siciliano (2000), A variety of empirical research have been conducted to investigate the impact of M&A on banks in the pre-and post-event era. This debate on the benefits of banks in M&A transactions is still unresolved. According to several studies, mergers and acquisitions in the banking sector are helpful. Bhatnagar (2001) study investigated a hefty toll on public sector banks afflicted by NPA-tainted balance sheets and saddled with the flab of prior bureaucratic initiatives. Well-managed, popular, and inventive sector banks are giving the PSBs a run for their money in an increasingly competitive business. The author proposes a solution in the form of a merger and streamlined operations. Sufian (2004) evaluated the impact of mergers in the banking industry in the Malaysian economy. The efficiency effects of the merger were taken into account during the post-merger period. The analysis revealed that overall efficiency improved in all institutions subject to merger, with the exception of a few large banks that experienced large-scale inefficiencies. (Kumar, 2009), The stock market's reaction to mergers and acquisitions announcements in developed countries has been documented, however, there is a paucity of information about the influence of mergers and acquisitions in developing countries' banking industries. (Badreldin & Kalhoefer, 2009), Several studies have been carried out in Egypt to analyze the performance of merging banks after banking reforms were successful in consolidating the sector. Findings revealed that Bank mergers helped in raising profitability and increased credit risk position by a small amount. After a series of mergers between commercial banks in Pakistan, Kouser & Saba (2011) sought to determine the impact of the transactions on profitability. Researchers discovered that all amalgamated banks' operating financial performance has worsened over time, as evidenced by the findings of the study. Adegboyega & Dele (2014), in the post-merger scenario, shareholder wealth decreases due to higher non-performing assets of merged banks, resulting in profit erosion and little or no payout to shareholders. Pessanha *et al.,* (2016), the announcement of an M&A transaction during the banking period generates an increase in stock volatility. As a result, shareholders anticipated an increase in risk. Stock volatility receives a lot of attention.

3.0 Research Methodology

3.1.1 Data

This study is based on secondary data and is being used for research purposes. To assess the influence of mergers and acquisitions on the performance of banks chosen as a sample, financial and accounting data was collected from the bank's published Quarterly reports for the period starting from the quarter of June 2018 to the current quarter of June 2021. And data was also gathered from the websites of the Bombay Stock Exchange, National Stock Exchange, and CRISIL database.

3.2 Paired T-test

The parametric t-test was used to analyze numerous critical parameters for the comparison of the pre-merger and post-merger periods of acquirer banks during the time period taken. This study looked at six major public sector banks prior to merger or acquisition and the same banks after consolidation with other target banks to measure the impact on profitability and shareholder value of the banks post-consolidation. The difference in their operational means of the major indicators is then calculated for each period, and this difference is used to determine the banks' real performance post-merger.

3.3. Analysis and interpretation

From the First quarter of FY 2018-19 to the First quarter of FY 2021-22, five major public sector banks that have undergone significant mergers were identified for this study. The Fund based income (Schedule 13), Fee-based income (Schedule 14), Interest Expenses, Operating Expenses, Net Profit, Provisioning, Earnings per share, Net Interest Margin, Market price per share, Price Book value ratio (PBV), and Market capitalization are all important aspects to consider when choosing financial parameters to measure the impact of Bank consolidation on profitability and shareholder value. The GNPA, NNPA, and Capital Adequacy Ratio (CAR) have all been highlighted in the correct context to provide this study with the needed depth and focus.

3.3.1 Fund based income

According to Table 2, the level of significance for the mean difference of Fund-based income for the corresponding study period taken (Post M&As over Pre-M&As) has increased in the case of all banks. And for all of the banks, the t-value is significant at the 0.05 level. The interest income of all five surviving public sector banks has increased significantly since the merger, and it appears that this trend will continue for some time. Profitability has had a beneficial influence from the merger activity of BOB, PNB, Indian Banks, Canara Bank, and Union Bank.

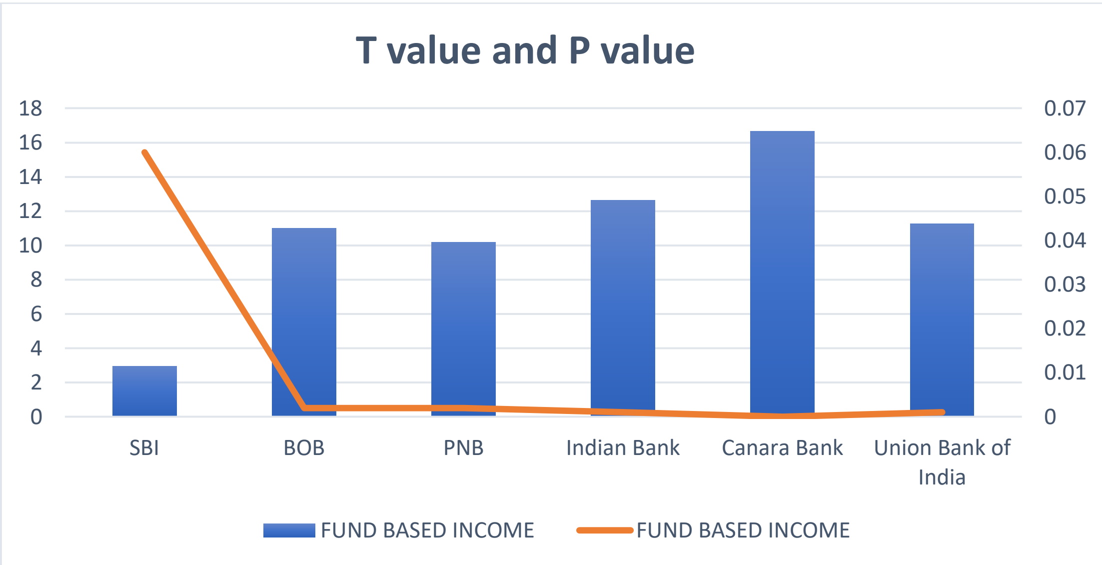
Table 1: Fund Based Income

FEE BASED INCOME						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	1971.763	469.965	3047.833	497.815	8.552	0.03
PNB	2346.918	214.736	3302.315	629.142	2.882	0.063
Indian Bank	831.375	151.976	1635.115	178.603	6.974	0.006
Canara Bank	2949.850	156.387	5861.788	1457.107	4.308	0.023
Union Bank of India	1447.318	453.560	3474.770	1422.754	2.715	0.035

P value: Significant at 5% level

Sources: Based on author's calculation

Figure 1: Fund Based Income



Sources: Based on author's calculation

3.3.2 Fee-based income

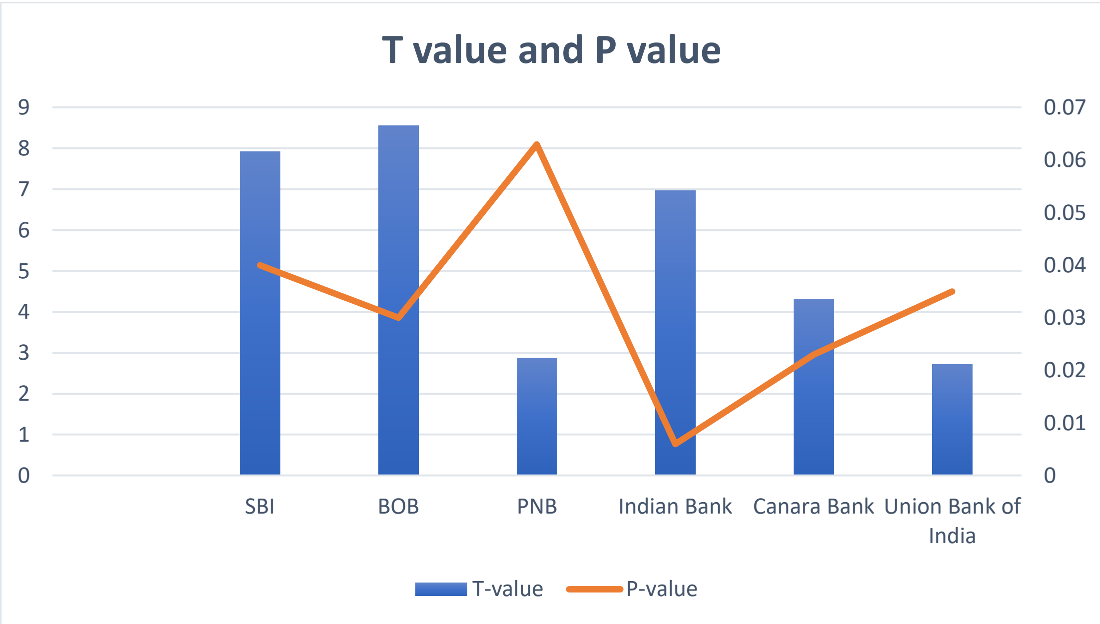
From the observation of Table 3, it reveals that the level of significance for the mean difference of Fee-Based Income for the corresponding study period taken (Post M&As over Pre-M&As) in the case of all banks increased but, on average, in the case of only PNB (t-value =2.882, p >0.05), the t value of 2.882 is insignificant as PNB piled up with bad debts in the previous financial years, it has no effect on post-consolidation. And Except for PNB, the t-value is significant at the 0.05 level for the other banks.

Table 3: Fee Based Income

FUND BASED INCOME						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	13226.563	879.042	19723.675	439.545	11.007	0.002
PNB	13729.618	379.567	20445.390	977.828	10.182	0.002
Indian Bank	5350.323	163.239	9777.018	586.815	12.650	0.001
Canara Bank	12439.688	127.351	17553.150	729.416	16.653	0.000
Union Bank of India	9369.805	304.940	17327.865	1261.208	11.267	0.001

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 2: Fee Based income



Sources: Based on author's calculation

3.3.3 Interest expenses

From the observation of Table 4, it reveals that the level of significance for the mean difference of Interest Expenses for the corresponding study period taken (Post M&As over Pre-M&As) in the case of all banks increased and the t-values are significant at the 0.05 level. Interest expenses have climbed dramatically for all five public sector banks following the merger, and it appears that this trend will continue for some time, given it includes the merger cost synergies of various banks.

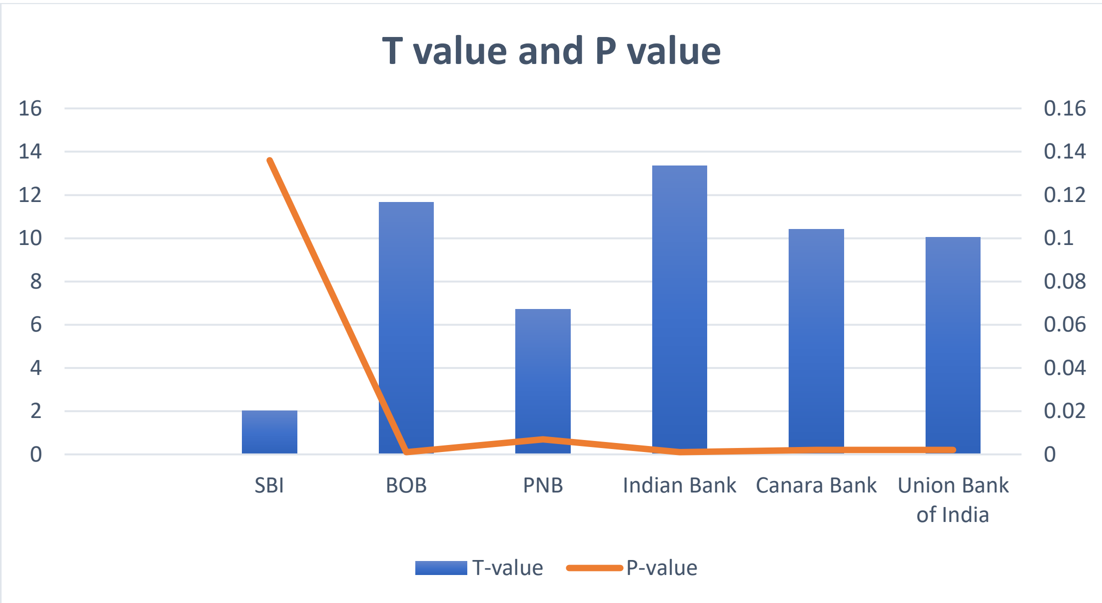
Table 4: Interest Expenses

INTEREST EXPENSES						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	8126.430	516.852	12509.973	235.549	11.663	0.001
PNB	9249.368	137.614	12701.145	895.752	6.718	0.007
Indian Bank	3449.378	70.868	5859.700	293.174	13.358	0.001
Canara Bank	8954.298	264.366	11295.625	510.097	10.424	0.002
Union Bank of India	6459.203	56.667	11028.100	894.173	10.034	0.002

P value: Significant at 5% level

Sources: Based on author's calculation

Figure 3: Interest Expenses



Sources: Based on author's calculation

3.3.4 Operating expenses

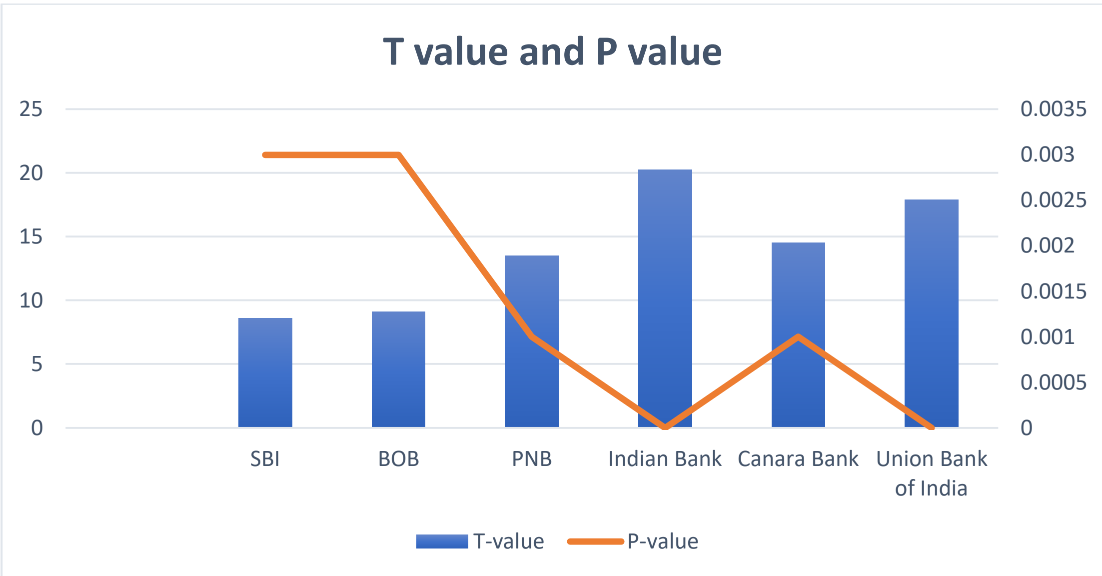
According to Table 5, the level of significance for the mean difference of Operating Expenses for the corresponding study period taken (Post M&As over Pre-M&As) increased in the case of all banks as the merger costs predominantly included Branch layoffs, technological improvements, supply chain advancements, and an increase in interest rates. The t-values for all six banks are significant at the 0.05 level. Following the merger, operating expenses for all five public sector banks increased considerably, and it appears that this trend will continue for some time now that Covid 19 Pandemic has joined the group. Furthermore, the bank's cost efficiency has been harmed by the merger activity of BOB, PNB, Indian Banks, Canara Bank, and Union Bank.

Table 5: Operating Expenses

OPERATING EXPENSES						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	3192.243	358.672	5144.070	296.026	9.092	0.003
PNB	3037.628	228.856	5128.943	139.117	13.516	0.001
Indian Bank	1108.175	29.237	2697.320	142.887	20.242	0.000
Canara Bank	4016.740	436.869	7071.225	672.025	14.535	0.001
Union Bank of India	2046.968	259.835	4937.880	563.127	17.898	0.000

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 4: Operating Expenses



Sources: Based on author's calculation

3.3.5 Provisions

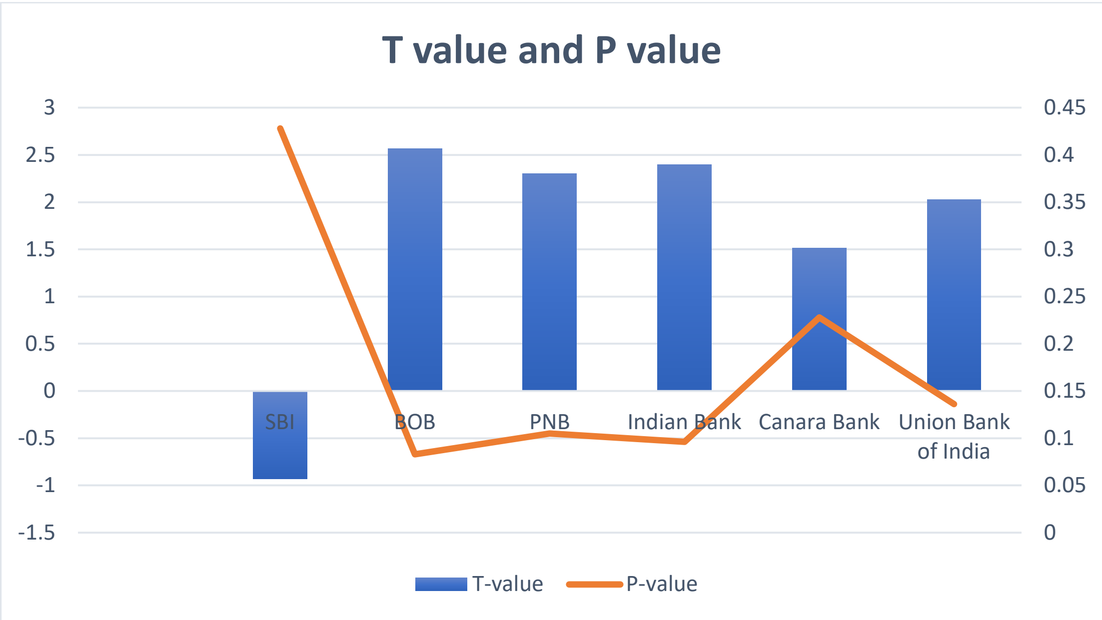
According to Table 6, the level of significance for the mean difference in Provisions for the corresponding study period taken (Post M&As over Pre-M&As) decreased in the case of all banks. And the t-values for all six banks are insignificant at the 0.05 level. Hence the provisions have very little impact on profitability.

Table 6: Provisions

PROVISIONS						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	3498.508	1579.199	5425.943	1969.474	2.566	0.083
PNB	3582.785	1267.468	4971.510	346.340	2.304	0.105
Indian Bank	1279.565	517.445	2123.783	255.922	2.399	0.096
Canara Bank	2796.878	1713.530	4077.700	209.670	1.512	0.228
Union Bank of India	2721.263	1198.716	4254.860	730.987	2.028	0.136

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 5: Provisions



Sources: Based on author's calculation

3.3.6 Net profit

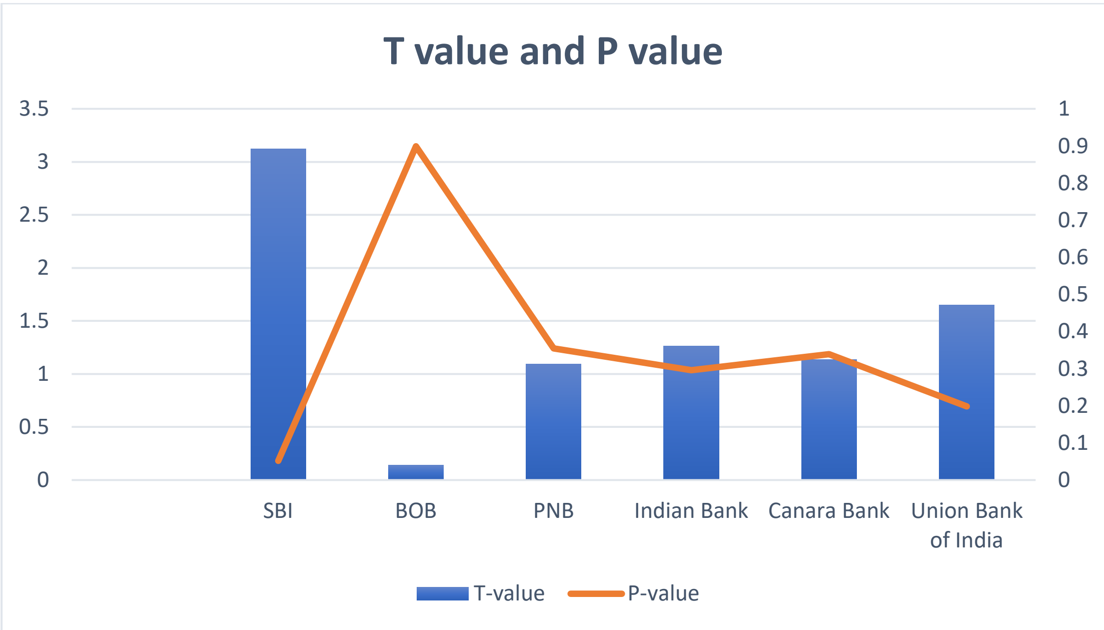
The level of significance for the mean difference in Net Profit for the corresponding study period taken (Post M&As over Pre-M&As) increased in the case of all banks, according to Table 7. Though the t-values for all five banks are insignificant at the 0.05 level, it becomes trivial in nature, when compared to the mean differences in net profit of all five commercial banks over the study's overall average period. As a result, net profit has a significant impact on profitability.

Table 7: Net Profit

NET PROFIT						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	138.817	697.092	235.545	984.323	0.138	0.899
PNB	90.835	780.118	538.100	46.002	1.092	0.355
Indian Bank	189.520	274.997	753.928	620.715	1.262	0.296
Canara Bank	498.898	1807.615	675.898	293.918	1.134	0.339
Union Bank of India	760.208	1457.193	707.005	400.823	1.649	0.198

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 6: Net Profit



Sources: Based on author's calculation

3.3.7 Earnings per share (EPS)

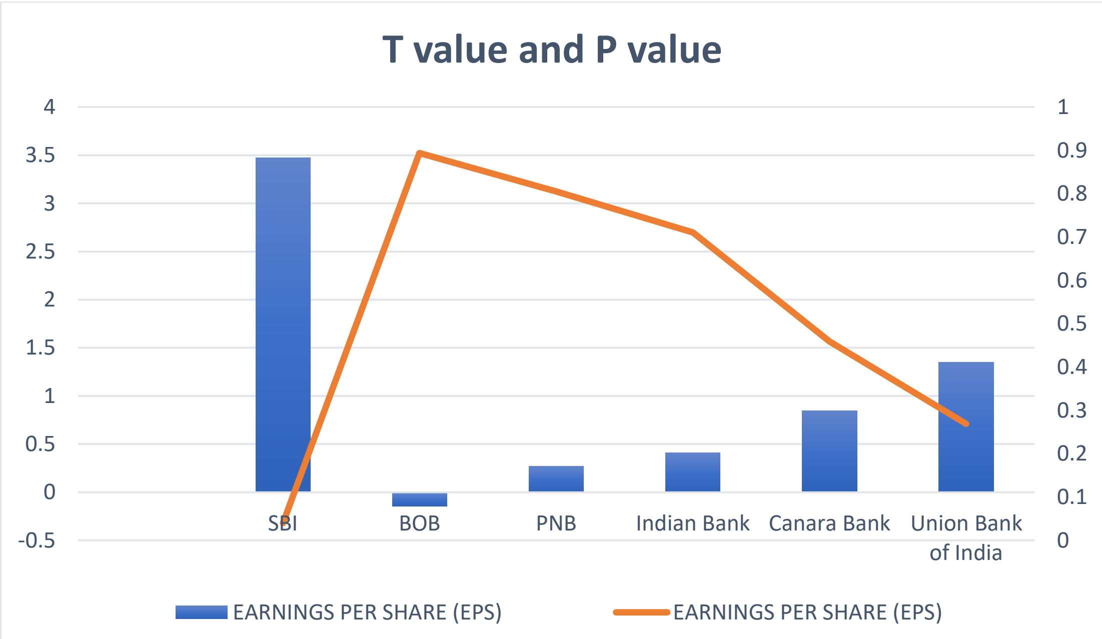
From the observation of Table 8. Despite the fact that Bank of Baroda merged with Vijaya Bank and Dena Bank, it is still regarded as the government of India's first major bank consolidation, and many were skeptical of the positive outcomes of this major consolidation. Furthermore, the t-values for the other banks are insignificant at the 0.05 level. Thus, the fact that the t value is insignificant for all banks does not imply that it has less influence on profitability when viewed as a whole.

Table 8: Earnings per Share

EARNINGS PER SHARE (EPS)						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	0.860	2.656	0.595	2.627	-0.145	0.894
PNB	0.425	1.649	0.658	0.091	0.270	0.805
Indian Bank	4.595	6.160	6.973	5.552	0.408	0.711
Canara Bank	- 3.775	18.260	4.693	1.902	0.847	0.459
Union Bank of India	-2.753	5.342	1.115	0.625	1.352	0.269

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 7: Earnings per Share



Sources: Based on author's calculation

3.3.8 Net interest margin

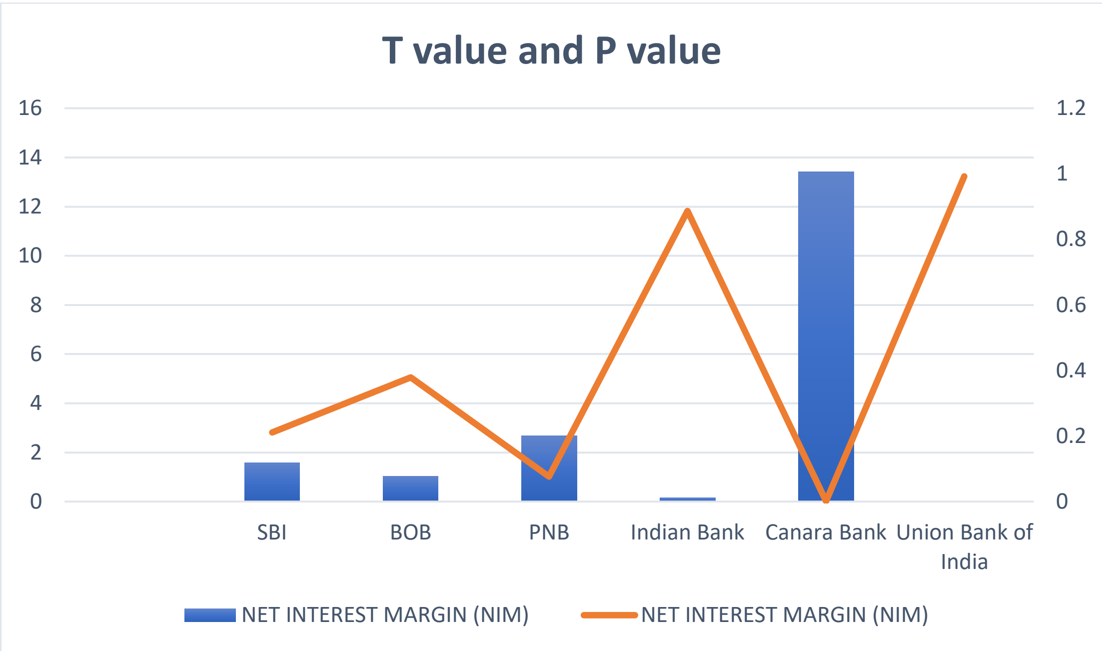
From the observation of Table 9, NIM increased marginally, and the t value is insignificant for all the banks except for Canara Banak (t-value =13.408, $p < 0.05$), the high t value of 13.408 is significant as Canara bank's advances grew by 3.68 percentage post-merger and it also raised capital through selling shares and tier (AT-1) bonds. Thus, NIM despite COVID19 influence, still holds good and indicates the future possibility of an increase in profitability of the banks in the long run.

Table 9: Net Interest Margin

NET INTEREST MARGIN (NIM)						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	2.935	0.095	3.190	0.292	1.585	0.211
BOB	2.715	0.127	2.795	0.066	1.029	0.379
PNB	2.500	0.149	2.993	0.345	2.672	0.076
Indian Bank	2.803	0.136	2.840	0.357	0.154	0.887
Canara Bank	2.285	0.061	2.803	0.039	13.408	0.001
Union Bank of India	2.663	0.440	2.665	0.246	0.010	0.992

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 8: Net Interest Margin



Sources: Based on author's calculation

3.3.9 Market price per share

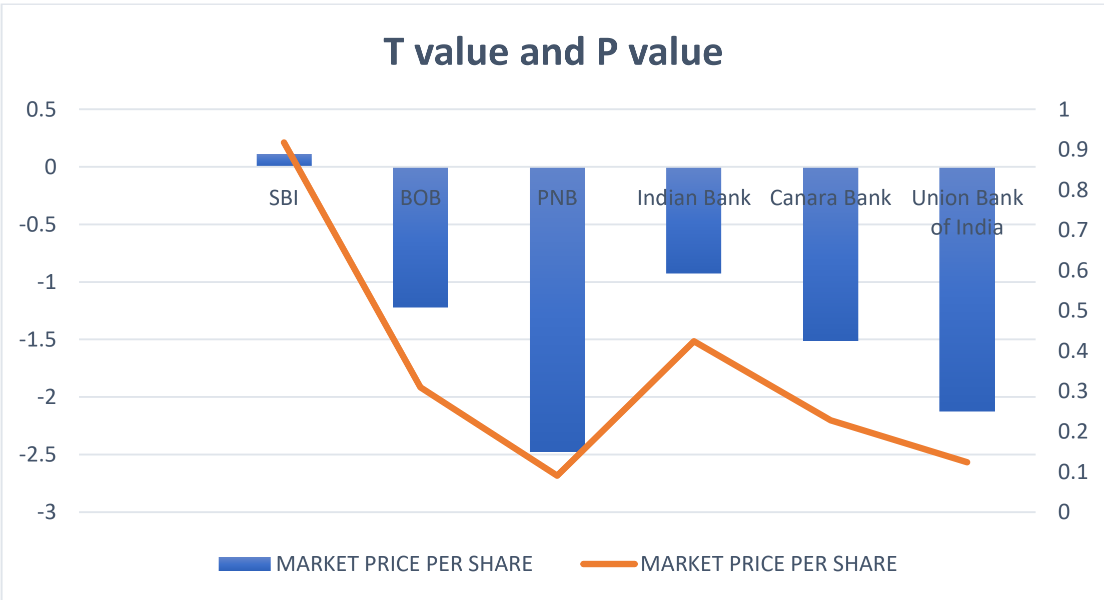
According to Table 10, the t-values for all six banks are insignificant at the 0.05 level and have a negative T value which indicates the negative impact on the Shareholder Value of the Banks. Hence the Market price per share have a negative impact on shareholder value as the mean difference for all the banks is negative and so t value being insignificant is of less importance.

Table 10: Market Price per Share

Acquirer Bank	MARKET PRICE PER SHARE					
	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	285.375	28.487	290.663	73.108	0.111	0.918
BOB	114.900	12.200	92.525	28.592	-1.219	0.310
PNB	59.550	19.737	33.250	3.461	-2.476	0.090
Indian Bank	132.288	91.733	80.025	27.211	-0.922	0.424
Canara Bank	194.663	81.169	117.638	28.538	-1.511	0.228
Union Bank of India	54.338	21.396	30.438	4.211	-2.124	0.124

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 9: Market Price per Share



Sources: Based on author's calculation

3.3.10 Price to book value (PBV)

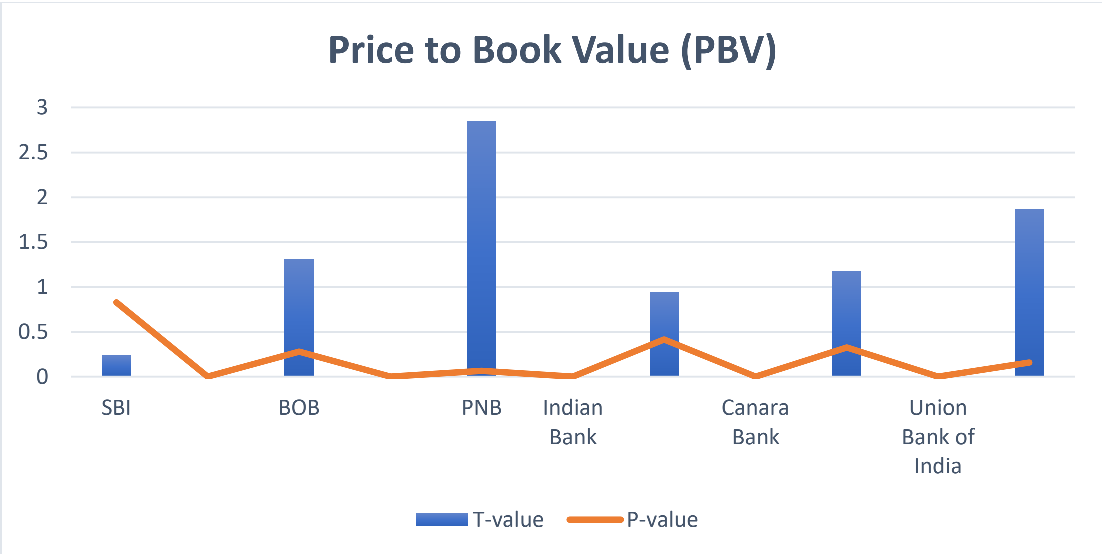
According to Table 11, the P/B ratio is below-one for all the banks and it doesn't affect the P/B ratio of the bank a lot compared to the merged banks. This means the stock is being valued at a discount to equity book value and there is no indication of an increase in P/B value due to the M&A. As a result, the PBV has a negative influence on shareholder value, as the mean difference for all banks has reduced over time, and the t-value, which is insignificant, has become less important.

Table 11: Price to Book Value

PRICE TO BOOK VALUE (PBV)						
Acquirer Bank	Pre-M&As		Post-M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
BOB	0.8	0.178	0.605	0.2229	1.3134	0.280
PNB	0.68	0.1774	0.475	0.1871	2.849	0.0651
Indian Bank	0.4175	0.2347	0.3025	0.8539	0.9418	0.415
Canara Bank	0.5225	0.1598	0.4075	0.09287	1.1717	0.32608
Union Bank of India	0.4925	0.08770	0.4	0.15253	1.8664	0.1588

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 10: Price to Book Value



Sources: Based on author's calculation

3.3.11 Market capitalization

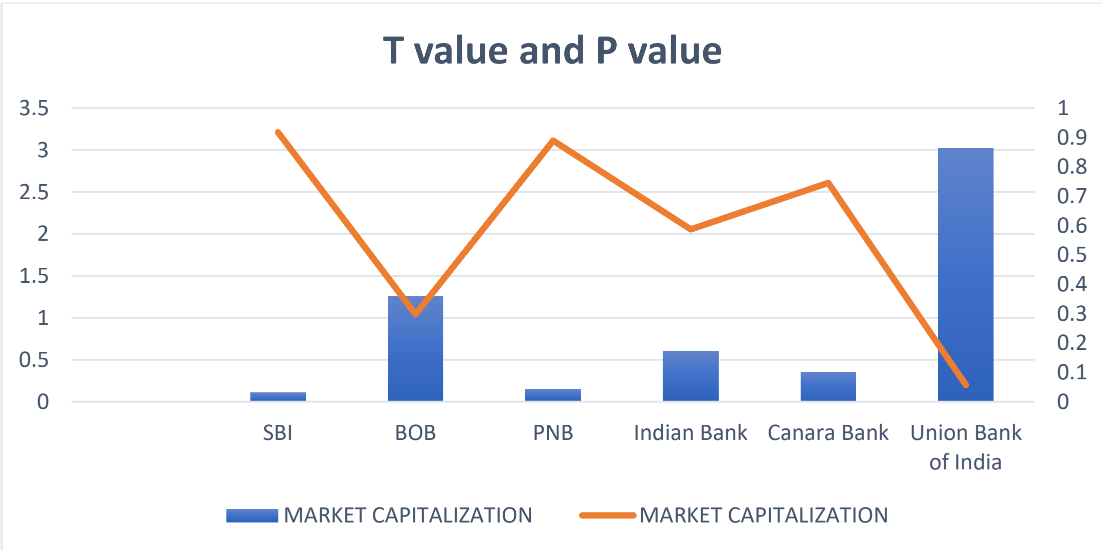
In table 12 and Figure 11, all five banks' t-values are insignificant at the 0.05 level. This is because the Centre's proposed capital infusion at abysmal valuations, as well as shares issued to investors of the amalgamating banks in the main bank (into which the bank/banks are merged), would result in a significant dilution in the merged entity's book value. In other circumstances, the merging banks trade at a significant premium to the main bank, implying that more shares will be issued under the swap arrangement, resulting in additional dilution. As a result, the stock prices of these PSU Bank stocks plummeted even lower, which became a logical explanation for the Public Sector Banks' market cap increasing slowly post-merger/acquisition.

Table 12: Market Capitalization

MARKET CAPITALIZATION						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	2529.753	252.709	2576.623	648.044	0.111	0.918
BOB	302.334	32.140	381.490	110.648	1.257	0.298
PNB	320.840	98.208	329.635	48.011	0.152	0.889
Indian Bank	68.895	42.328	89.417	31.067	0.607	0.587
Canara Bank	167.108	63.752	185.065	59.165	0.357	0.745
Union Bank of India	129.729	43.706	194.043	26.745	3.020	0.057

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 11: Market Capitalization



Sources: Based on author's calculation

3.3.12 Gross non-performing assets (GNPA)

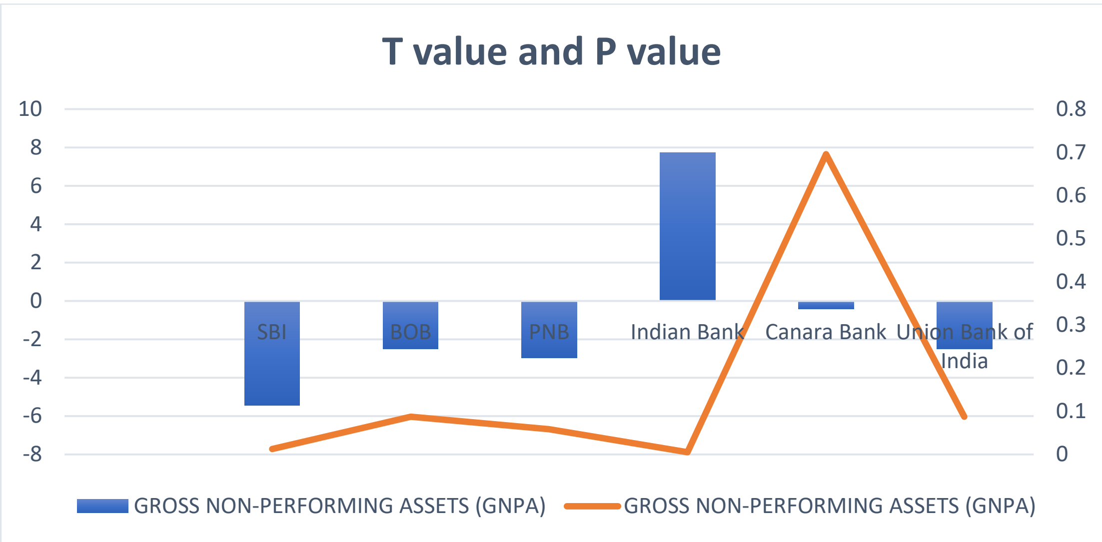
Table 13. shows that Except for the Indian Bank (t-value, =7.727, p <0.05), the level of significance for the mean difference in GNPA decreased marginally for all banks. The high t value of 7.727 for Indian Bank is significant and GNPA increased post-merger. This is because the Bank faced massive consequences of the COVID19 pandemic, especially the second wave, which led to a weakness in the asset quality of the bank. Furthermore, all the other five banks' t-values are negative and insignificant at the 0.05 level, implying that the banks are doing well following the consolidation in terms of GNPA.

Table 13: Gross Non Performing Assets

GROSS NON-PERFORMING ASSETS (GNPA)						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	9.220	1.392	6.953	0.587	- 5.454	0.012
BOB	11.215	1.223	10.090	0.467	-2.510	0.087
PNB	15.940	1.169	13.663	0.553	-2.988	0.058
Indian Bank	7.160	0.196	9.928	0.757	7.727	0.005
Canara Bank	8.538	0.262	8.388	0.678	-0.431	0.696
Union Bank of India	14.858	0.500	14.223	0.716	-2.513	0.087

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 12: Gross Non- Performing Assets



Sources: Based on author's calculation

3.3.13 Net non-performing assets (NNPA)

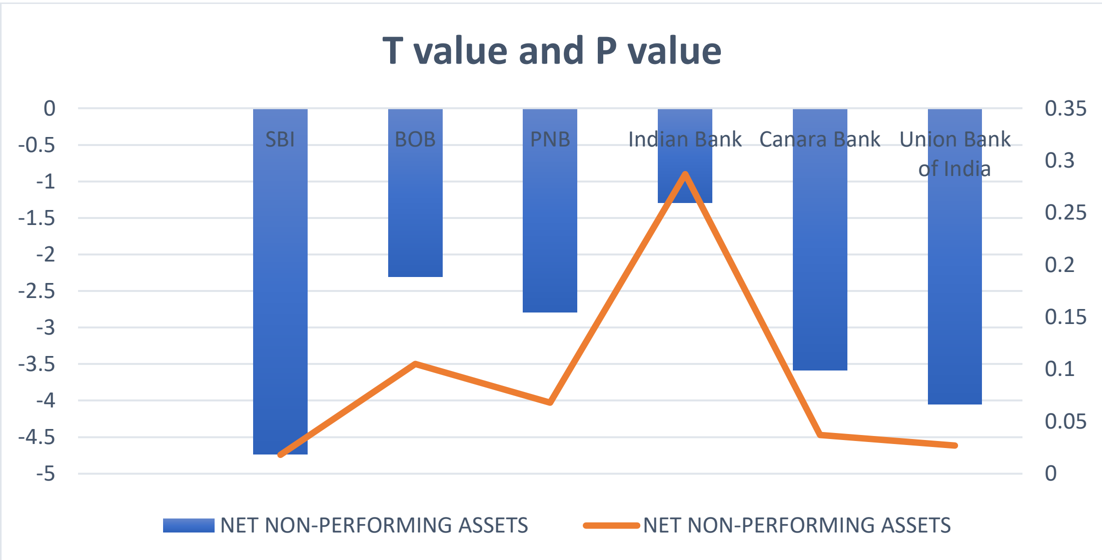
In Table 14. NNPA decreased marginally for all banks including Indian Bank. This is due to the high provisions. And in the case of Canara Bank (t-value =3.584, $p < 0.05$), and Union Bank of India (t-value =4.050, $p < 0.05$), the t value is significant and NNPA decreased post-merger. This is because of the increase in the COVID19 loan welfare package issued by RBI, restructuring of loans during the pandemic period, an increase in provisions which leads to the decrease in the NNPA post-consolidation. It indirectly impacts the bank's share price and profitability to a greater extent. Other banks, which are insignificant have a lesser hold on the NNPA on profitability and shareholder value post-consolidation as shown in Figure 13.

Table 14: Net Non-Performing Assets

NET NON-PERFORMING ASSETS						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	4.273	1.009	2.685	0.350	-4.735	0.018
BOB	4.463	0.887	3.760	0.424	-2.305	0.105
PNB	6.945	0.808	4.975	0.750	-2.791	0.068
Indian Bank	3.503	0.291	3.110	0.603	-1.292	0.287
Canara Bank	4.945	0.493	3.460	0.585	-3.584	0.037
Union Bank of India	6.673	0.797	4.248	0.737	-4.050	0.027

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 13: Net Non- Performing Assets



Sources: Based on author's calculation

3.3.14 Capital adequacy ratio (CAR)

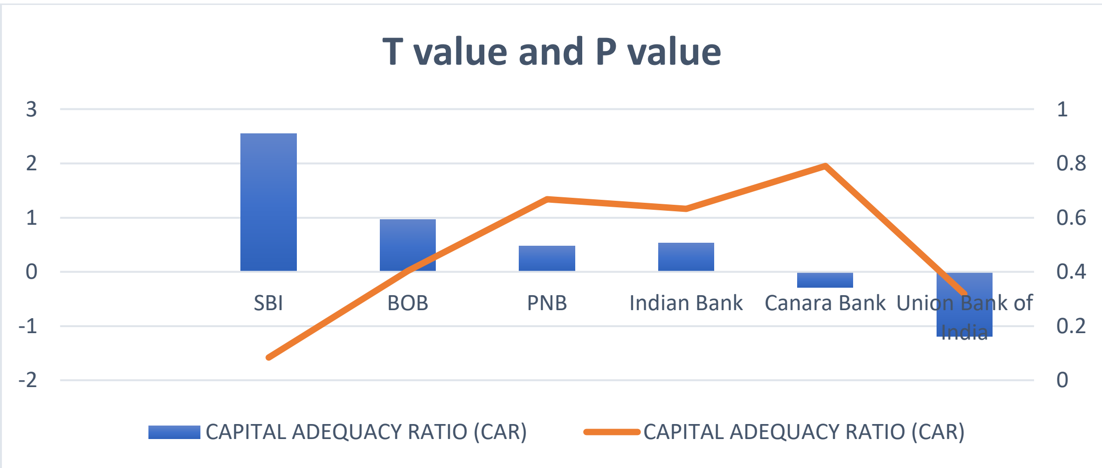
Table 15 shows that the level of significance for the mean difference in Capital Adequacy Ratio for the corresponding study period (Post M&As over Pre-M&As) increased marginally for all banks except for Canara Bank and Union Bank of India. The negative t value indicates the decrease in the CAR ratio of the Canara Bank and Union Bank of India and all t values irrespective of being positive or negative, is insignificant as shown in figure 14. The Capital Adequacy Ratio of commercial banks is used to assess the efficiency and stability of a strong banking system.

Table 15: Capital Adequacy Ratio

CAPITAL ADEQUACY RATIO (CAR)						
Acquirer Bank	Pre-M&As		Post M&As		T-value	P-value
	Mean	Standard Deviation	Mean	Standard Deviation		
SBI	12.733	0.093	13.318	0.406	2.549	0.084
BOB	12.275	0.786	12.815	0.901	0.968	0.404
PNB	13.005	2.157	13.418	0.813	0.474	0.668
Indian Bank	13.925	0.860	14.215	1.029	0.532	0.632
Canara Bank	13.300	1.076	13.150	0.397	- 0.289	0.791
Union Bank of India	13.323	1.874	12.385	0.569	-1.191	0.319

P value: Significant at 5% level
Sources: Based on author's calculation

Figure 14: Capital Adequacy Ratio



Sources: Based on author's calculation

4.0 Findings

It is found that the acquiring bank, Bank of Baroda tends to reduce the Shareholder value the post-consolidation remains lowered despite the good performance of, the targets banks Vijaya Bank and Dena bank prior to consolidation. Canara Bank's Net interest margin increased compared to other banks the reason being an increase in its asset portfolio post amalgamation. The Indian Bank merger cost efficiency is quite low compared to other banks and Bank's Gross NPA increased post-consolidation though it recorded an increase in the net profit post-consolidation .Union Bank and Canara Bank reported a huge rate of increase in their Net profit post-consolidation as both of these banks turned profit-making banks from loss-making banks in their last financial year prior to the consolidation.

The Capital adequacy ratio, Asset quality ratio, Market price per share, Price Book value ratio (PBV), and Market cap being insignificant statistically indicates that the Cost synergies, Profitability synergies will be met in a long period of duration and cannot be measured in the shorter time frame post-consolidation because of the outburst of the COVID19 Pandemic. The t-value though insignificant is not trivial. So, it can be concluded that for a longer time period also, the merger activity of BOB, PNB and Indian bank, Canara Bank, and Union Bank of India has an impact on their left-over earnings.

5.0 Conclusion

In terms of market reactions to merger announcements, the market initially reacted unfavorably to most bank acquisition announcements, lowering shareholder value, but ultimately, there was either destruction or growth of shareholder wealth among public and private sector bank investors. In the banking sector, merger announcements often result in no (or slightly positive) cumulative abnormal returns on acquiring banks' equities and significantly positive abnormal returns on target bank stocks. However, the findings should be viewed with caution. While stock prices reflect the market's expectations for future cash flows, actual results may differ from those forecasts. This is especially true in the case of bank mergers.

To quote Mr. Muthu Raman, Former Managing Director of Tata steel on the day tata steel acquired Corus, “It will take at least another three years before we realize the full synergies of this consolidations". Similarly, it would take at least another two years for the consolidated new entities in the public sector banking to bring out the synergies of such mergers. The major concerns such as Capital Adequacy, Credit delivery and growth, asset quality, and profitability needed to be addressed urgently due to 10.76 lakh crore gross non-performing assets that came to light during the first half of FY2018-19. Hence the drastic step of bank consolidation had to be carried out to restore public confidence in the banking system. However, it is heartening to note that there are clear indications of a pullback as revealed by analysis of financial data post-merger of these banks. The full benefits of such consolidations may take at least another couple of years but it is reasonable to assume that the first step has been taken in the right direction in this matter.

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