

Performance Analysis Of The Consolidation Of Indian Public Banks: A Comparison Of Pre – And – Post Merger

Sumitha S¹, Valarmathi B²

^{1,2} Department of commerce, Christ deemed to be university, Bangalore – 560029, India.

How to cite this article: Sumitha S, Valarmathi B (2024). Performance Analysis Of The Consolidation Of Indian Public Banks: A Comparison Of Pre – And – Post Merger. Library Progress International, 44(4), 1592-1601

Abstract

Globalisation and liberalisation have led to significant developments in the banking industry over the past two decades, including the elimination of entry barriers, the introduction of new financial products and services, and technical advancements. Banking consolidation involves fewer banking businesses and deposit-taking institutions, resulting in larger, better-capitalized entities with more market concentration in deposits, loans, and operations. This research compares the performance of merging nationalised banks in India before and after merger based on many factors, including net profit ratio, return on equity, return on assets, earnings per share, and profit per employee. The research covered Punjab National Bank, Canara Bank and Union Bank. The paired t-test revealed that the merger had a negative impact on net profit ratio, return on equity, and return on assets, but a favourable impact on earnings per share and profit per employee.

Keywords: Indian Public Banks, Consolidation, Merger, Profit

I. Introduction

The Indian banking industry contributes significantly to the country's economic development. Over the last 30 years, India's banking system has undergone significant improvements. The banking business has two types of banks: scheduled commercial banks and non-scheduled commercial banks. Banks included in Schedule II of the Reserve Bank of India Act, 1934 are classified as scheduled. Scheduled banks are classified into three categories: public sector, private sector, and foreign banks. All nationalised banks, including State Bank of India and Regional Rural Banks, are classified as public sector. There are two sorts of private sector banks: new and old. Regional rural banks are financial institutions that operate in rural regions. These banks are sponsored by any bank, state, or federal government [1].

The banking business began in the 18th century during colonial times. The earliest banks in India were General Bank of India and Bank of Hindustan, established in 1786 and 1790, respectively. The British East India Company created other presidential banks, including Bank of Bengal, Bank of Bombay, and Bank of Madras, by their Charter Acts. In 1921, these banks merged to become the Imperial Bank of India, which ultimately became the State Bank of India following independence. Bank of India, Bank of Baroda, Canara Bank, Corporation Bank, Indian Bank, and Central Bank of India were all created between 1906 and 1911 [2].

All of these banks have persisted till the current time. Since 1992, the Indian banking industry has seen significant changes, including organisational and functional changes, resource mobilisation, and the role of banks in socioeconomic situations, as well as challenges and solutions. Since 1992, the Indian banking system has undergone significant reforms to transition from a highly regulated environment to a highly competitive one. This includes changes in branch locations, interest rates, priority sector lending, and more [3].

Banks, particularly public sector banks, were not judged on the basis of profitability before liberalisation, although the philosophy, perception, and operation of private banks have changed dramatically since then. To better comprehend commercial banks' present concerns, it's important to examine post-reform trends in the banking sector. Numerous efficiency and productivity studies were done to examine how bank consolidation affects financial systems in industrialised nations. According to Basu et al. (2004), the advantages of consolidation vary among jurisdictions and differ

from pre- and post-consolidation predictions. They contended that financial consolidations in Europe, America, and Asia since the 1980s did not appreciably reduce bank failures and crises [4].

Banks are authorised by the state to conduct financial operations such as receiving deposits, providing loans, and investing in securities. Banks have a crucial role in promoting economic growth and providing funding for initiatives. Regulation and globalisation are causing substantial changes in the banking business today. This industry uses several ways to improve efficiency and competitiveness on a worldwide scale. Consolidating banks is an effective technique for saving the financial sector. Bank consolidation can be accomplished in a variety of methods, including mergers. Merging two weaker banks or one good bank with a weaker one might result in faster and lower-cost profit-making than promoting internal growth. The major goal of merging the banks is to generate economies of size and scope. It diversifies goods and reduces hazards [5].

For the world's largest and most diversified democracy, India's financial sector has made several great and astounding achievements in a very short period of time.

In the post-liberalization era, the Indian banking industry has undergone several changes, as well as several successful mergers, which have aided its growth.

In 1968, the federal government adopted an ordinance to nationalise 14 commercial banks. These banks at the time held 85% of the country's total deposits [6].

Another nationalisation occurred in 1980, with the nationalisation of six additional banks. This momentous step brought 91% of the banking system under central government control, resulting in 20 nationalised institutions. In 1993, the government made another move towards economic growth by deciding to consolidate banks. The New Bank of India amalgamated with the Punjab National Bank. This was the first and only merger of two nationalised banks, and it reduced the number of nationalised banks from 20 to 19, which remains the same to this day [7].

Banking organisations are confronting a more complicated regulatory environment as their operations expand. Mergers and acquisitions are the most effective ways to achieve a competitive edge, both domestically and globally. And the entire business is looking forward to significant acquisitions in India and overseas. Mergers are performed for a variety of reasons, including corporate consolidation, expansion to enter a new market, increased product range, synergies, and so on. Synergies refer to the combined value of joined enterprises. The Indian financial system has undergone a substantial shift [8].

The business is likely to develop further with increasing infrastructure spending, faster project delivery, and ongoing changes in the country. All of the reasons indicate a strong expansion in the banking industry, which will increase business opportunities. Advancements in technology, such as mobile and online banking, have improved and made the banking system more transparent, leading to increased client satisfaction [9].

There are five types of mergers - The first kind is a vertical merger, which occurs when two non-competing enterprises unite because one of their products or components is required by the other. This sort of merger occurs between organisations that engage in several forms of business. The second sort of merger is a horizontal merger, in which organisations that operate in the same industry and compete with one another are brought together. The purchasing firm and the target company are both in the same business [10].

The third kind is an accretive merger, in which a firm with a high price-to-earnings ratio acquires a company with a low price to earnings ratio. The fourth form of merger is a conglomerate merger, which occurs when the parent and target companies have no economic tie. The fifth form of merger, a Dilutive merger, occurs when the acquiring company's EPS declines following the merger. This is because the target firm performed poorly [11].

Narayanswamy (2017) defines financial analysis as the process of studying a company's yearly performance report and providing useful information to decision-makers. Before acquiring a target firm, it is usually necessary to assess its performance because the merger affects all stakeholders. Mergers can have beneficial or negative effects on the acquiring firm's financial performance. Before proceeding with any type of merger transaction, the acquiring business must examine the performance. If not done properly, the merger might result in bad financial performance [12].

In Indian mergers, the financial system has been strengthened by combining the weaker and inefficient one with the stronger and more profitable one. Recently, profit-making institutions have been merging to maximize advantages and synergies. Mergers occurred for many causes across time. As a result, research on banking mergers in India has grown increasingly important over time. Mergers allow banks to pool their resources, decrease intermediary costs, and extend and increase opportunities to scale up their performance and the economics of the industry. These advances have significant implications for enhancing bank operations and increasing earnings. As a result, understanding the banking

sector and how it operates in the face of rising issues, as well as which banks perform well in these demanding conditions, is critical for both management and policy interests [13 – 14].

Ishwarya J (2019) investigated mergers and acquisitions (M&A) in the Indian banking system in order to better understand the ensuing synergies and their long-term consequences. In the article, he also examined developing trends in Indian banking mergers and acquisitions, as well as the effects of those transactions. A comparison study is performed on the financial performance of pre- and post-merger companies using financial metrics. The data for the study were gathered from secondary sources. The findings of the study indicate that mergers have been effective in the Indian banking system. The study also advises that the government and policymakers should not encourage mergers between weak and strong banks in order to improve the interest of weak bank depositors since they would have a negative impact on the asset quality of stronger banks [15].

Zhang et al. (2018) used partial least squares regression to examine the association between mergers and business performance, using data from listed Chinese pharmaceutical enterprises from 2008 to 2016. The study found that when all other variables were constant, value chain expansion merger and acquisition and technology seeking merger and acquisition had a beneficial influence on business performance. It further said that the firm's development capabilities, assets, and solvency had no effect on its performance following the merger and purchase [16].

Athma and Bhavani (2017) investigated mergers in India's banking system at the phase, sector, and temporal levels, as well as the performance of such mergers. The research assessed merger patterns in the banking sector. The data for the study was gathered from secondary sources. The study's analysis uses simple percentages, f-tests, and t-tests. The paper's findings imply that throughout the pre-liberalization period, mergers were mostly dominated by public sector banks. Following liberalisation, private sector banks played a larger role in mergers. The study discovered that mergers are currently viewed as a significant tool for consolidation and expansion [17].

Patel (2017) compared pre- and post-merger long-term goals and profitability in Indian banks from 2003-04 to 2013-14. The study included data from Bank of Baroda, Oriental Bank, Bank of India, and IDBI Bank. Following a merger, it was discovered that equity returns, return on assets, net profit ratio, advance, and investment yield were all negatively impacted, although certain factors such as per-share profits, profit per employee, and business per employee showed a favourable trend and growth [18].

Consolidation also helps to cut operational expenses and non-performing assets, resulting in a considerable increase in profit through personnel and service cost reduction. According to Umoren and Olokoyo (2007), consolidation can lower credit risk for combined banks while also improving credit performance. However, in Nigerian banks, the consolidation process resulted in a reduction in operating expenditures as well as an increase in capital assets [19]. (379260)

Jayadev et al. (2017) outlined the innovation that occurred in the Indian financial framework, laying the groundwork for new banking institutions known as small financing banks. These banks provide basic banking and credit services to sustain a huge population through various banking models. These banking system models assisted them in achieving financial inclusion. The banking sector faced several issues, including low-cost liability portfolios, technological management, and maintaining regulatory compliance [20].

Kant (2016) defined merger as an amalgamation. A merger occurs when two or more firms combine to establish a new entity, or when the parent company acquires all assets and liabilities from the other companies. The report outlined the merger procedure, which involves transferring all of the firms' assets, liabilities, and stocks to the transferee company and making purchase consideration payments. The country's economy is deemed to be healthy or sound if the banking system is robust, as banks are the country's leading financial institutions, and they have grown significantly even throughout the global financial crisis [21].

Coccorese & Ferri (2020) exemplifies by studying diverse consolidations among Italian mutual cooperative banks with an attempt to assess whether those consolidations magnify efficiency. It analysed that, only 5% of the consolidations led to cost efficiency. Consolidations assist the banks to improve operational efficiency, and fulfil the requisites of a customer. It also brings in synergies within the networks of the branch. Yet consolidation of banks is not a cake walk, since the public sectors are thus far in distress and perilous situations. The government is now taking momentous considerations for reducing the number of public sector banks from 21 to 12 with a perspective of decreasing the number but increase in the size of the banks. This leads to the shift in the operational efficiency of the PSU banks. The main intention was to consolidate weaker banks with strong banks, so as to avoid loss that arises from depositors and to create a strong banking sector. The above aspect was in relation to the two guiding principles for RBI consolidation which was proposed by the financial services secretary Rajiv Kumar. The two principles were (i) To create a healthy bank that is large in size and (ii) To have an enterprise that has a strong brand, technology and good reach [22].

Consolidations often generated unpleasant shareholder returns, and the main cause would be due to delays in the execution of operating savings and achieving benefits from economies of scale. There also arise circumstances where consolidation

benefits, which are called the efficiency levels haven't been achieved up to an average of four-five years post consolidations. Hence it isn't practical, that any consolidation, would bring in, an increase in efficiency levels. (Sherman & Rupert, 2006). [23].

The financial performance of the banks, in the country is usually analysed by diverse ratios, to increase the competitiveness and efficiency of the banks. Nevertheless, there are ample number of strict guidelines and policies when the consolidation of banks proves to be one among the best way to achieve efficiency levels in banks. There is likely an increase in the trend of the expected returns for shareholders when there are strict policies, which will proportionately lead to higher efficiency levels. There also arises a matching market framework, which notifies that there is a notable advantage and value creation attained during the consolidation process, then the efficiency gain in itself. [24 – 26].

There always arises a change in efficiency patterns between the consolidated and the nonconsolidated banks. The technical efficiency of the bank falls down and increases up only after a period three to four years. Further there is no significant change in the efficiency in the initial phase of consolidation during the period [27]. The Indian banking sector, considers consolidations as an inbuilt principle. The consolidation of banks increases operational efficiency, and improve customer services. This would increase synergy benefits. It always becomes a challenge to the Government in identification of weaker banks and recommend them to consolidate with the stronger ones [28]. However Commercial banks operational performance has been affected due to recapitalisation, technological advancements, compliance and consolidations.

The aim of this research implies that the performance of merging nationalised banks in India before and after merger based on many factors, including net profit ratio, return on equity, return on assets, earnings per share, and profit per employee. The research covered Punjab National Bank, Canara Bank and Union Bank.

Research Gap

Research on mergers and acquisitions in the Indian banking sector has often focused on profitability and financial analysis. In this study, a rigorous analysis and evaluation of mergers will be conducted with the Indian banking industry as the primary emphasis. The research evaluates banks' pre- and post-merger performance and predicts their future profitability.

Objectives of the study

1. To analyze the performance of banks pre- and post-merger in terms of long-term profitability
2. To analyze the performance of banks with the average of the industry in both pre- and post-merger

II. Methodology

The study used a descriptive research design and a fundamental research technique. The factors included in the study were the net profit ratio, return on equity, return on assets, earnings per share, and profit per employee. The paired t-test was employed to assess financial performance and long-term profitability. The student's t-distribution is [29]:

$$t = \frac{\bar{x} - \mu}{\frac{s}{\sqrt{n}}} \quad (1)$$

where,

$$\bar{x} = \frac{x_1 + x_2 + \dots + x_n}{n} \quad (2)$$

$$s = \frac{1}{n-1} \sum_{i=1}^n (x_i - \bar{x})^2 \quad (3)$$

Ratios:

1. Net Profit Ratio = (Net Income/Revenue) X 100
2. Return on Equity = (Net Income/Shareholder's Equity) X 100
3. Return on Assets = (Net Income/Average Total Assets) X 100

III. Results and Discussions

Analysis and Interpretation

Table 1 analyses the Punjab National Bank financial performance both before and after the merger. The net profit ratio fell from 28.56 % before the merger to 23.48 % after it. The t-value of 0.23 and the significance value of 0.006 indicate that the merger had a substantial influence on the bank's net profit ratio. Prior to the merger, the return on equity was 16.23 %, whereas after the merger, it was 14.14%. The t-value of 1.25 and significance level of 0.36 indicate that the merger had no meaningful influence on the bank's performance. The pre- and post-merger return on assets were 0.85 percent and 0.87 percent, respectively, indicating that the merger had no significant influence on return on assets.

According to the data, the average earnings per share were Rs. 21.34 prior to the merger and Rs. 35.88 after the merger. The t-value of -3.52 and significance value of 0.022 indicate that average earnings per share increased considerably following the merger. Profit per employee increased from 0.01 before merger to 0.02 after merger. The t-value of -3.89

and the significance value of 0.02 indicate that the merger had a substantial influence on the bank's earnings per employee. As a result, the merger has a negative impact on the Net Profit Ratio and Return on Equity, but a favourable impact on Earnings per Share and Profit per Employee.

Figure 1 & 2 illustrates the performance of Punjab National Bank on pre- and post-merger.

Table 1: Pre- and Post-Merger Financial Performance of Punjab National Bank

Particulars	Duration	Mean	Standard Deviation	t-value	Sig.
Net Profit Ratio (%)	Pre-Merger	28.56	51.62	0.23	0.006
	Post-Merger	23.48	32.12		
Return on Equity (%)	Pre-Merger	16.23	5.23	1.25	0.36
	Post-Merger	14.14	3.55		
Return on Assets (%)	Pre-Merger	0.85	0.36	0.19	0.92
	Post-Merger	0.87	0.17		
Earnings per Share (Rs. in Lakh)	Pre-Merger	21.34	9.25	-3.52	0.022
	Post-Merger	35.88	16.23		
Profit per Employee (Rs. in Lakh)	Pre-Merger	0.01	0.01	-3.89	0.02
	Post-Merger	0.02	0.02		

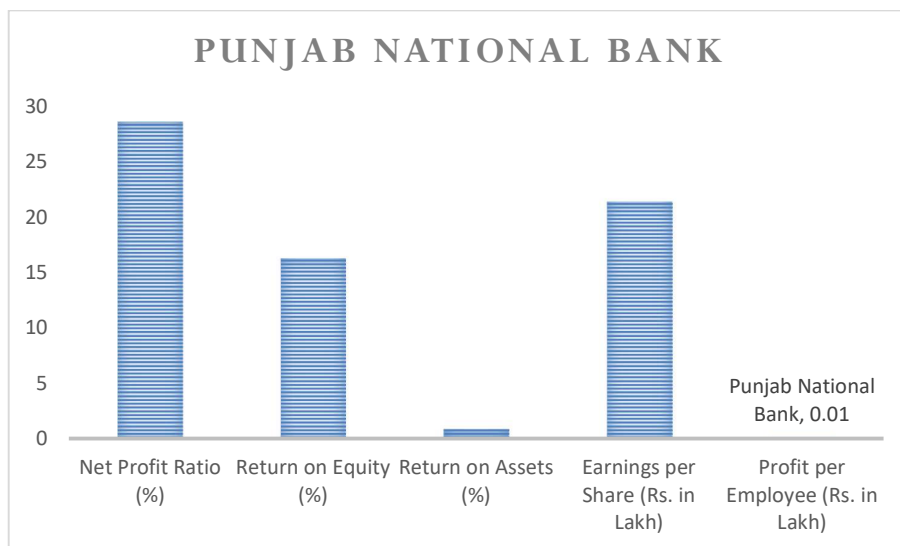


Figure 1. performance of Punjab National Bank on pre-merger

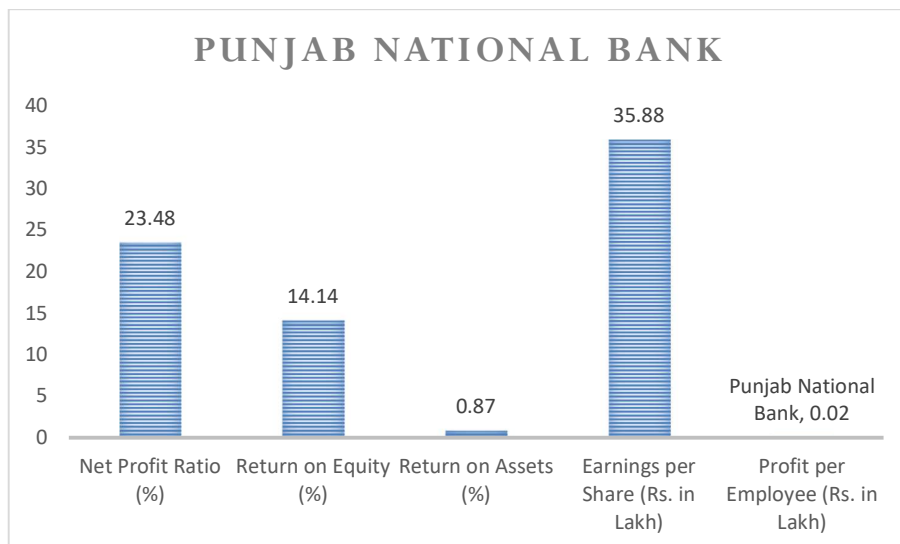


Figure 2. performance of Punjab National Bank on post-merger

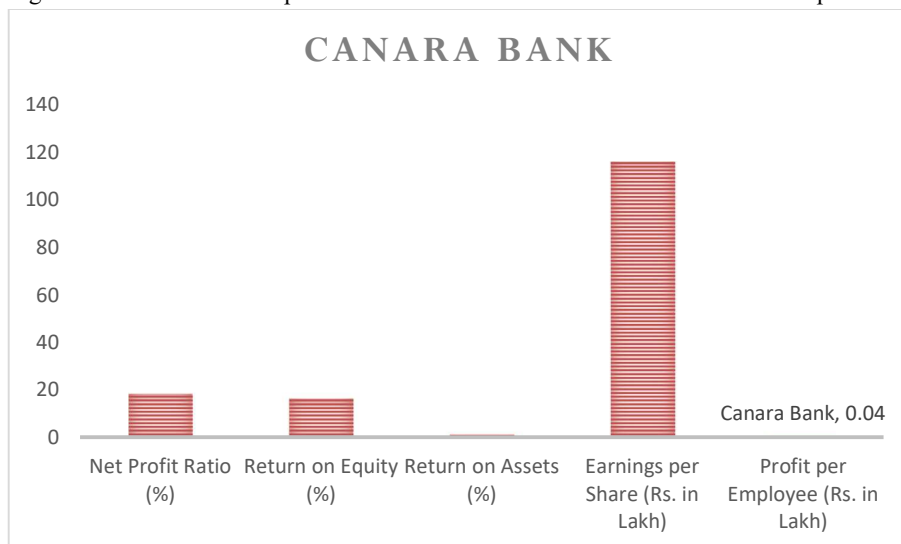
Table 2 depicts Canara Bank financial performance before and after the merger. The net profit ratio fell from 18.26 % to 10.02 % following the merger. The t-value of 0.48 and significance value of 0.018 indicate that the merger had a substantial negative influence on the bank's net profit ratio. Similarly, the return on equity decreased from 16.24% to 12.56%, with a t-value of 2.61 and a significance level of 0.063. The return on assets fell from 0.98 % in the pre-merger period to 0.77 % after the merger. With a t-value of 2.15 and a significance level of 0.105, the merger has a minor influence on return on assets. Following the merger, the average profits per share rose from Rs. 115.92 lakh to Rs. 141.85 lakh.

Table 2: Pre- and Post-Merger Financial Performance of Canara Bank

Particulars	Duration	Mean	Standard Deviation	t-value	Sig.
Net Profit Ratio (%)	Pre-Merger	18.26	22.32	0.48	0.018
	Post-Merger	10.02	25.91		
Return on Equity (%)	Pre-Merger	16.24	1.04	2.61	0.063
	Post-Merger	12.56	2.64		
Return on Assets (%)	Pre-Merger	0.98	0.10	2.15	0.105
	Post-Merger	0.77	0.15		
Earnings per Share (Rs. in Lakh)	Pre-Merger	115.92	29.73	-0.538	0.623
	Post-Merger	141.85	71.70		
Profit per Employee (Rs. in Lakh)	Pre-Merger	0.04	0.01	-3.602	0.02
	Post-Merger	0.05	0.01		

The merger had a minor influence on average profits per share, as indicated by the t-value of -0.538 and significant value of 0.623. The profit per employee increased from Rs. 0.04 lakh before the merger to Rs. 0.05 lakh after the merger. The t-value and significant value were -3.602 and 0.02, respectively, indicating that the merger had a substantial influence on the bank's earnings per employee. Thus, the merger had a negative influence on the Net Profit Ratio and Return on Equity, but a favourable impact on Earnings per Share and Profit per Employee.

Figure 3 & 4 illustrates the performance of consolidation of the Canara Bank on pre- and post-merger.

**Figure 3. performance of Canara Bank on pre-merger**

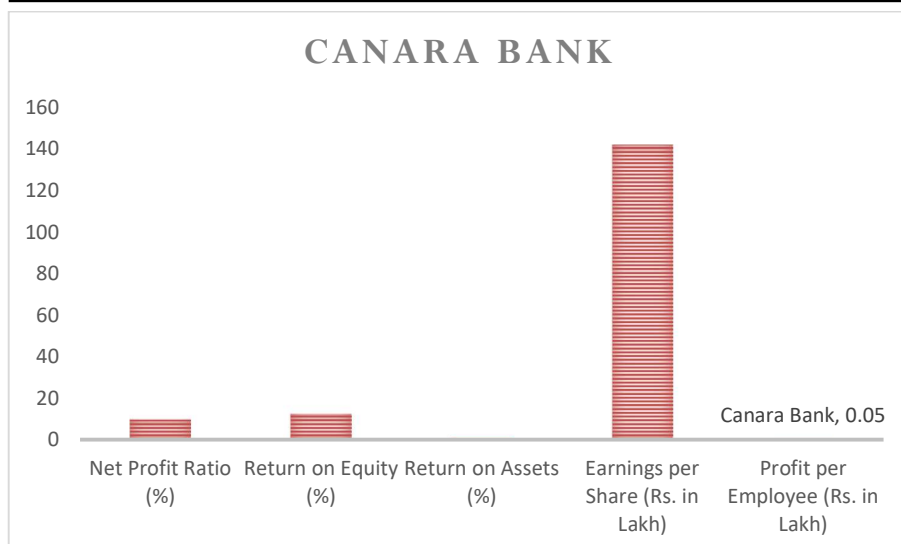


Figure 4. performance of Canara Bank on post-merger

Table 3 displays Union Bank's financial performance before and after the merger. The merger resulted in a significant decrease in net profit ratio from 112.36% to 26.19%. The t-value obtained is 2.88, and the significance level is 0.046. Prior to the merger, the return on equity was 17.25%, whereas after the merger, it was 12.86%. With a t-value of 1.16 and a significance level of 0.034, a merger has a considerable negative impact on return on equity. The return on assets was 0.92 percent prior to the merger and 0.66 percent post-merger.

Table 3: Pre- and Post-Merger Financial Performance of Union Bank

Particulars	Duration	Mean	Standard Deviation	t-value	Sig.
Net Profit Ratio (%)	Pre-Merger	112.36	51.65	2.88	0.046
	Post-Merger	26.19	19.65		
Return on Equity (%)	Pre-Merger	17.25	7.88	1.16	0.034
	Post-Merger	12.86	2.24		
Return on Assets (%)	Pre-Merger	0.92	0.26	2.34	0.078
	Post-Merger	0.66	0.05		
Earnings per Share (Rs. in Lakh)	Pre-Merger	6.23	1.62	-5.67	0.002
	Post-Merger	12.36	3.24		
Profit per Employee (Rs. in Lakh)	Pre-Merger	0.07	0.03	-3.04	0.01
	Post-Merger	0.09	0.02		

The t-value is 2.34, and the significance level is 0.078, indicating that the merger has a substantial negative impact on return on assets. On the contrary, earnings per share surged dramatically from Rs. 6.23 lakh pre-merger to Rs. 12.36 lakh post-merger. The t-value of -5.67 and the significant value of 0.002 indicate that the merger had a substantial beneficial impact on profits per share. Similarly, the profit per employee increased from Rs. (in Lakh) 0.07 to Rs. (in Lakh) 0.09 following the merger. The merger had a substantial influence on profit per employee, as indicated by the t-value of -3.04 and the significant value of 0.01. Thus, the merger had an average impact on return on equity, return on assets, earnings per share, and profit per employee, resulting in a large negative impact on the net profit ratio. Figure 5 & 6 illustrates the performance of consolidation of the Union Bank on pre- and post-merger.

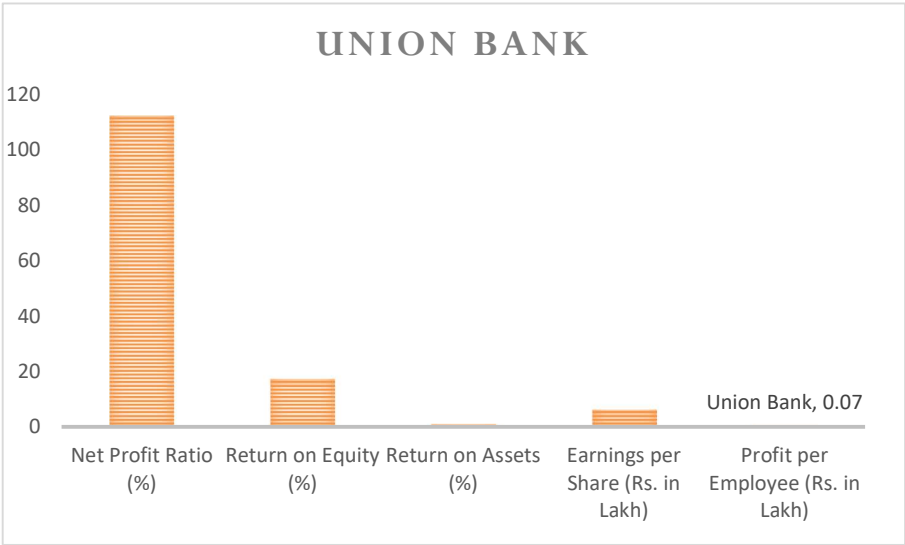


Figure 5. performance of Union Bank on pre-merger

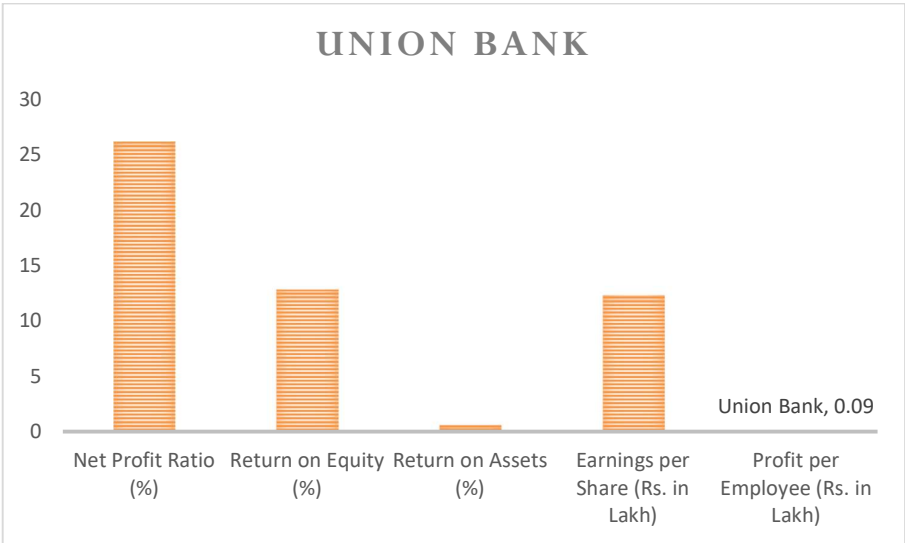


Figure 6. performance of Union Bank on post-merger

Table 4: Comparative analysis of the financial performance of banks with an average of the industry

Particulars	Period	Punjab Bank	National Bank	Canara Bank	Union Bank
Net Profit Ratio (%)	Pre-Merger	28.56		18.26	112.36
	Post-Merger	23.48		10.02	26.19
Return on Equity (%)	Pre-Merger	16.23		16.24	17.25
	Post-Merger	14.14		12.56	12.86
Return on Assets (%)	Pre-Merger	0.85		0.98	0.92
	Post-Merger	0.87		0.77	0.66
Earnings per Share (Rs. in Lakh)	Pre-Merger	21.34		115.92	6.23
	Post-Merger	35.88		141.85	12.36
Profit per Employee (Rs. in Lakh)	Pre-Merger	0.01		0.04	0.07
	Post-Merger	0.02		0.05	0.09

Table 4 compares banks' financial performance to the industry average. Among the banks chosen, Canara Bank's net profit ratio was lower than that of Punjab National bank and Union Bank both before and after the merger. At the same time, Punjab national Bank's return on equity exceeded the industry average following the merger. Though Canara Bank had a better return on assets prior to the merger, Punjab national Bank's return on assets increased following the merger. State Bank of India had larger earnings per share before and after the merger than Punjab national Bank's and Union Bank. Similarly, Union Bank had a larger profit per employee than Punjab national Bank and Canara Bank, both before and after the merger.

IV. Conclusion

The primary concern of the work is to analyse the consolidation performance of various Indian public banks. The comparison is done by pre- and post-merger of the banks. It is often assumed that large banking businesses are less dangerous and more efficient than smaller ones, or that global banking sectors are combining to minimise surplus capacity; yet, the reality that governmental policies have fostered bank mergers cannot be contested. Mergers are not always used to disguise flaws, but to improve the financial industry. It has the potential to improve the efficiency of all branches and banks.

These mergers integrate the business assets, processes, and technological platforms, reducing risk and extending credit in ways that a single bank cannot. According to the central bank, bank consolidation impacts systemic risk and financial stability. The findings indicate that mergers improve bank performance and efficiency. The most significant element is increasing net profits in the post-merger period so that management's choice to combine is justified to shareholders. The study also suggests that future research should focus solely on the impact of mergers on stronger banks by comparing their pre- and post-merger performance and that a large sample size be used for a longer period to provide better and more accurate results.

References

1. Kumar, S., (2013). Impact of Bank Mergers on the Efficiency of Banks: A study of merger of Bharat Overseas Bank with Indian Overseas Bank. *International Journal of Academic Research in Business and Social Sciences*. Vol. 3, No. 12, ISSN: 2222-6990.
2. Das A, Nag A, Ray SC. Liberalization, Ownership, and Efficiency in Indian Banking: A Nonparametric Approach. 2004.
3. Favero CA, Papi L. Technical efficiency and scale efficiency in the Italian banking sector: a non-parametric approach. *Appl Econ*. 1995;27(4):385e395.
4. Kumar L, Malathy D, Ganesh LS. Productivity growth and efficiency change in Indian banking: technology effect vs catch-up effect. *J Adv Manag Res*. 2010;7(2):194e218.
5. Kumar M, Charles V, Mishra CS. Evaluating the performance of indian banking sector using DEA during post-reform and global financial crisis. *J Bus Econ Manag*. 2016;17(1):156e172.
6. Mester LJ. A study of bank efficiency taking into account risk-preferences. *J Bank Finance*. 1996;20(6):1025e1045. 24. Miller SM, Noulas AG. The technical efficiency of large bank production. *J Bank Finance*. 1996;20(3):495e509.
7. Mohan TR, Ray SC. Comparing performance of public and private sector banks: a revenue maximisation efficiency approach. *Econ Polit Wkly*. 2004:1271e1276.
8. Rangrajan C, Mempelily P. Economies of Scale in Indian Banking in Technical Studies for Banking Commission Report. Mumbai: Reserve bank of India; 1972:244e268.
9. Dong, Y., Girardone, C., Kuo, J.M., 2017. Governance, efficiency and risk taking in Chinese banking. *Br. Account. Rev.* 49 (2), 211–229.
10. Duval, S., Tweedie, R., 2000. Trim and fill: a simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis. *Biometrics* 56 (2), 455–463. Egger, M., Davey, S.G., Schneider, M., Minder, C., 1997.
11. Bias in meta-analysis detected by a simple, graphical test. *Br. Med. J.* 315 (7109), 629–634. Eluyela, D.F., Akintimehin, O.O., Okere, W., Ozordi, E., Osuma, G.O., Ilogho, S.O., Oladipo, O.A., 2018.
12. Narayanaswamy, R. (2017). Financial accounting: a managerial perspective. PHI Learning Pvt. Ltd.
13. Board meeting frequency and firm performance: examining the nexus in Nigerian deposit money banks. *Heliyon* 4 (10), e00850.

14. Erin, O., Asiriwa, O., Olojede, P., Ajetunmobi, O., Usman, T., 2018. Does risk governance impact bank performance? Evidence from the nigerian banking sector. *Acad. Account. Finan. Stud. J.* 22 (4), 1–14.
15. Ishwarya, J., (2019). A Study on Mergers and Acquisition of Banks and a Case Study on SBI and its Associates. Conference Proceeding Published in International Journal of Trend in Research and Development (IJTRD). ISSN: 2394-9333, pp. 22-26.
16. Zhang, W., Wang, K., Li, L., Chen, Y., Wang, X., (2018). The impact of firms' mergers and acquisitions on their performance in emerging economies. *Technological Forecasting and Social Change*. Elsevier, Vol. 135(C), pp. 208-216.
17. Athma, P., Bhavani, A., (2017). Trends in Mergers in Banking Sector in India: An Analysis. *SUMEDHA Journal of Management*. Vol.6, No.4, pp.37-48.
18. Patel, R., (2017). Pre & Post-Merger Financial Performance: An Indian Perspective. *Journal of Central Banking Theory and Practice*. 2018, 3, pp. 181-200.
19. Umoren, A.O and Olokoyo, F.O. (2007), “Merger and Acquisition in Nigeria: Analysis of Performance Pre-and-Post Consolidation”, *Lagos Journal of Banking, Finance and Economic Issues*, 1(1): 1-16.
20. Jayadev, M., Singh, H., Kumar, P., (2017). Small finance banks: Challenges. *IIM Management Review*. 29(4), pp. 311 – 325.
21. Kant, A., (2016). Pre and Post Merger Performance of Commercial Banks in India (A comparative study among Indian Public Sector, Private Sector, and Foreign Banks). Dayalbagh Educational institution (Agra, India)
22. Coccoresse, P., & Ferri, G. (2020). Are mergers among cooperative banks worth a dime? Evidence on efficiency effects of M&As in Italy. *Economic Modelling*, 84. <https://doi.org/10.1016/j.econmod.2019.04.002>
23. Sherman, H. D., & Rupert, T. J. (2006). Do bank mergers have hidden or foregone value? Realized and unrealized operating synergies in one bank merger. *European Journal of Operational Research*, 168(1). <https://doi.org/10.1016/j.ejor.2004.05.002>
24. Khushalani, D., & Sinha, M. (2021). Pre- And post-merger financial analysis of banks. *Universal Journal of Accounting and Finance*, 9(6). <https://doi.org/10.13189/ujaf.2021.090604>
25. Siedlarek, J.-P. (2017). Merger Control in the Banking Sector. *Economic Commentary* (Federal Reserve Bank of Cleveland). <https://doi.org/10.26509/frbc-ec-201710>
26. Akkus, O., Cookson, J. A., & Hortaçsu, A. (2016). The determinants of bank mergers: A revealed preference analysis. *Management Science*, 62(8). <https://doi.org/10.1287/mnsc.2015.2245>
27. Jayaraman, A. R., Srinivasan, M. R., & Arunachalam, R. (2014). Impact of merger and acquisition on the efficiency of Indian banks: a pre-post analysis using data envelopment analysis. *International Journal of Financial Services Management*, 7(1). <https://doi.org/10.1504/ijfsm.2014.062287>
28. Kambar, P. S. (2020). A STUDY ON THE CONSOLIDATION AND MERGER OF PUBLIC SECTOR BANKS (PSB) IN INDIA: ISSUES AND CHALLENGES. *International Journal of Social Science and Economic Research*, 4(6).
29. Khan, A.A., (2011). Merger and Acquisitions (M & A) in the Indian Banking Sector in Post Liberalization Regime. *International Journal of Contemporary Business Studies*. Vol. 2, No -11, ISSN: 2156-7506.