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## Effect of mergers on Bank of Baroda before and after, a study of the banking sector

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Abstract: The banking industry has been essential to the economy's development. Mergers and acquisitions are one of the best ways for banks to expand. The government merged banks when banks had more non-performing assets (NPA), less efficiency for work, no global reach, less profitable situation, or had other unimportant features. The government decided to combine three public sector banks in 2019, namely Vijaya Bank, Dena Bank, and Bank of Baroda (BOB). BOB rose to become India's third-largest bank following the merger. In order to analyze the position of the bank, the study covered various indicators like Gross & Net NPA, operational profit, net profit, capital adequacy ratio (CAR), return on assets (ROA), return on equity (ROE), earning per share (EPS), deposits & advances. Charts are used to analyze these factors, and data from the two years before and two years after the banks' merger has been used. Secondary sources such as annual reports, websites, various publications, etc. has been used to get the data. After the two-year merger, operating profits rose by 40.11% and 52.96%, while net profits rose by 25.81% and 91.01%, demonstrating improved efficiency. Since gross NPA exceed net NPA, banks had control the NPA such that inefficiency became efficiency. Deposits and advances have both climbed, and the CAR has as well, indicating that there is enough capital on hand to handle losses. Since the merger, EPS, ROA, and ROE have all dramatically increased. According to the study, the bank's performance of BOB improved after the merger.

Keywords: NPA, Merger, BOB, Profitability, ROA, ROE, CAR, EPS

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#### 1.Introduction

Mergers and Acquisitions helps in the acquisition of a competitiveness and the reduction of industrial deficiencies. Companies trade information on revenue, debt, properties, technology, etc. while merging. Based on regional considerations and the severity of bad loans, public sector banks were combined. Additionally, it reshapes and recreates the financial industry in the nation. In Indian banking, there have been several voluntary merger efforts, and following financial reforms in 1991, Times Bank and HDFC Bank merged for the first time [1]. Indian banks sought to merge with another bank in order to cut costs, increase stability, maximise shareholder returns, or establish themselves as a universal bank[2].

The earliest financial system was established in India in the middle of the 18th century. Bank of Hindustan, which opened in India in 1770 and closed in 1832, was the country's first modern bank. The General Bank of India was founded in 1786 and was closed down in 1791. Many banks were formed throughout the history of banking, but owing to unfavorable conditions, some of them were forced to shut. State Bank of India (SBI) is one of the largest and oldest public banks currently in operation in India. Initially known as the Bank of Calcutta, it was founded in 1806 and changed its name to the Bank of Bengal in 1809. In 1921, the Imperial Bank of India was formed by the merger of three banks: the Calcutta Bank (1806–1921), the Bank of Bombay (1840–1921), and the Bank of Madras (1843-1921). State Bank of India took over as the Imperial Bank of India's successor in 1955. After the merger, SBI with its associates failed to produce any outstanding results [3]. State Bank of India (SBI) amalgamated with its seven subsidiaries, including the State Bank of Saurashtra in 2008, the State Bank of Indore in 2010, and the State Banks of Hyderabad, Patiala, Bikaner & Jaipur,

Mysore, and Travancore in 2017. In 2017, Bharatiya Mahila Bank and SBI also combined. SBI became the world's 43rd-largest bank as a consequence of the merger[4].

The Bank of Baroda Ltd., a private bank with one million paid up capital, was formed on July 20, 1908 as the forerunner of today's Bank of Baroda. Maharaja Sayajirao III of Baroda founded it. The Bank of Baroda Ltd. was replaced by Bank of Baroda after BOB was nationalized in 1969. BOB has established a large number of branches and is now operating globally. The merger of BOB with Vijaya Bank and Dena Bank was suggested by the Indian government on September 17, 2018, and the plan was accepted by the union cabinet on January 2, 2019. Three public sector banks namely BOB, Vijaya Bank and Dena Bank merged on April 1, 2019. Following the merger, Bank of Baroda has become the secondlargest public sector bank in India in terms of market capitalization and the business of SBI[5]. BOB now has 120 million clients, 79,806 workers, 8,214 branches, 10,033 ATMs, Rs. 1,155,364.8 crore in total assets, etc. After merging, there are 12 public sector banks, there were 27 public sector banks in all prior to this.

#### 2.Objective

Objectives of the study are given below:

- 1. To know about the history of BOB.
- 2. To research the Bank of Baroda's performance before mergers and acquisitions.
- To research the Bank of Baroda's performance after mergers and acquisitions.

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#### 3.Literature Review

Athma and Bhavani [6] discovered that there were significant changes to the regulatory framework following mergers in the Indian banking sector, which greatly increased competition through internet banking. The 22 mergers of Indian banks that occurred between 1991 and 2017 were included in the analysis, and secondary sources were used to gather the data. T-test has been utilized to compare the pre- and post-performance of the chosen banks, and Pearson's multiple correlation and regression analysis have been performed to assess the strength. The results showed that, for the mostly, variables performed well after the merger, with the exception of SBI's employee count and profitability and HDFC Bank's employee count.

Chawla et al. [7] investigated the pre- and post-M&A impact on Indian telecommunication businesses between 2000 and 2010. To enhance efficiency and effectiveness, it incorporated 10 M&A transactions in the Indian telecom industry, which is listed on the BSE. Wilcoxon T-test and paired sign-rank tests were employed to gauge performance. Three years before and three years after the merger made up the two phases of the time span. In seven telecom businesses, the performance following a merger is meaningless. Results showed that expected goals and objectives to boost performance had been set during the pre-merger planning period.

Halder et al. [8] showed that firm restructuring has been the most successful M&A strategy in the twenty-first century. The study looked at whether stock performance of firms was impacted by M&A announcements. The event study method and cumulative average abnormal return were used to assess the before and after incident. The stock prices exhibited positive results after the M&A announcement, which showed that more unfavorable returns were changed into less adverse returns and negative anomalous returns were changed into positive returns. Stock price stability over the long run has been seen as opposed to stability over the short term.

Hinal and Divekar [9] investigated that the Indian banking industry has separated into two phases: pre-liberalization (1991) and post-liberalization (after 1991). the primary goal of the merger was to minimize the non-performing assets held by one weaker bank (Dena Bank) and two stronger banks (Bank of Baroda and Vijaya Bank). When the merger happened, all of the banks' profitability was negligible. In order to change this, factors included the total number of branches, employees, loans made, deposits received, capital adequacy ratio, NPA, and ROA of all the banks were taken into consideration. According to the results, a combination of a strong bank with a weak bank might aid in reducing the load of NPA. [10] analyzed that six randomly selected Jahan et al. Bangladeshi Islamic banks were used to measure bank performance. The metrics employed for this analysis were return on assets, return on equity, and return on deposit. Du Pont analysis was used to determine the relationship between ROA and ROE. All profitability scenarios saw excellent performance from EXIM Bank, and the average assets of Islamic banks were discovered to be the greatest. ROD and ROA produced a satisfactory result, however operational effectiveness

and asset utilization were insignificant.

Kar and Soni et al. [11] the fact that companies have used mergers and acquisitions (M&A) to grown and that Indian corporate organizations have refocused on their core capabilities, market share, international competitiveness, and consolidation The analysis included the M&A data of 15 listed businesses from 1990-1991 to 2000-2001 based on the width of the deal. The overall time period has been divided into two phases, the first from 1990 to 1996 and the second from 1996 to 2001, with a total of 68 M&A in the first phase and 1318 M&A in the second. Sales, net profit, book value of the firm, and return on net worth are only a few of the several factors that have been used to evaluate the success of the chosen organizations. Results indicated that sales climbed after gained the experience of M&A, profit after tax increased between 1994 and 1998, and book value of firms increased between 1994 and 1999, but there was no influence on the return of new value.

Kashyap et al. [12] investigated that the M&A of banking sector had been important role for the expansion and development of the economy. For this reason, the operational and financial performance of BOB has been examined before and after the mega merger of BOB, Dena Bank, and Vijaya Bank. Numerous operational metrics, such as the number of employees, branches, and clients, as well as financial metrics, such as deposits and advances, operating income and expenditure, NPA, operating profit, net profit, capital, liability, and assets, had been collected of BOB before and after the merger. To displayed the pre- and post-merger metrics like operating and financial of BOB via charts. The outcome showed that BOB's condition following the merger had a beneficial influence on the banking industry.

Kulothunga [13] investigated that the comparison of the pre and after merger of the three nationalized banks Bank of Baroda, State Bank of India, and IDBI from 2000 to 2010 was sought after. For the study's pre- and post-merger analysis, many factors were examined across all banks, including net profit ratio, ROE, ROA, EPS, and profit per employee. By using a paired t-test, it was determined that after the merger banks had a negative impact on the net profit ratio, ROE, and ROA while having a favorable influence on EPS and profit per employee. The results showed that bank mergers helped to manage risk and boost financial health.

Kumar and Aggarwal [14] discovered that the primary goal of the merger of three public sector banks was to increase client base and improve customer services. Because mergers in the service sector have an impact on people, human resources were taken into consideration when mergers were made. Data from 2016–17 to 2020–21 were collected to examine the pre– and post–merger state of BOB. Several factors, including the investment valuation ratio, debt coverage ratio, profit and loss ratio, and efficiency ratio, were used for this aim. The conclusion was that human resources should be taken into account throughout the merging process of the service industry.

Mubarak and Barikara [15] Investigations were conducted into a significant banking sector merger in 2017 involving

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SBI and its associates, followed in 2019 by a mega merger involving 10 public sector banks into 4 sizable banks. The effects of the merger on the Indian economies of PNB, Canara, Union, and Indian banks were covered in the study. Information of these Indian banks has been gathered via secondary data. This merger significantly altered the economy and resolved the NPA issue. The outcome showed that banks have to need the strengthen their stability and profitability going forward.

Mucenieks [16] studied that M&A of enterprises accountable for the European Commission Union. Due to growing competition, technological innovation, modernization, production restructuring, change in strategy, etc., has been utilized as a corporate development instrument for continuous growth and stability. If a corporation added social qualities, then society directly benefited to the company. Since each M&A is unique, it has not been necessary to alter the usual course of business; in fact, due diligence has helped the situation. M&A's success thus relied on the context in which it was used. The results demonstrated that the speed of integration was crucial to a successful M&A since a delayed integration would lead to cultural disputes and obstruct the merger.

Muhammad et al. [17] examined the M&A activity in Pakistan's banking sector between 2004 and 2015. ratio analysis was performed to evaluate the financial performance following the M&A. The result was that the banks' liquidity, profitability, and investment ratios greatly improved their performance following the M&A, but their solvency ratios showed that their increasing debt load had an adverse impact on their performance.

Patel [18] observed that the long-term profitability of four Indian banks—Bank of Baroda, OBC, IDBI, and SBI—has been the subject of selection. The impact of bank mergers was examined using data collected from 2003-04 to 2013-14 and included financial parameters such ROE, ROA, EPS, Net Profit Ratio, Yield on Advance, Yield on Investment, Profit per Employee, and Business per Employee. While some variables had beneficial results, others had the opposite effect after merger of banks. All the banks saw improvements in assets, equity, investments, and advances while other aspects declined. The findings showed that SBI has benefited from the merger more than other banks.

Prajapati and Nakum [19] found that merger and acquisition had a significant role in the market's future. Despite their tiny size, e-commerce companies are well-known. Flipkart purchased this technology, which Walmart then acquired after making the same improvements. Walmart and Flipkart struck the largest transaction, at \$16 billion. Due to the development of the internet, online shopping, online payments, and other technologies, etc., the trend of e-commerce is growing daily. Walmart must remain competitive over time if Flipkart is to remain viable.

Smita et al. [20] from 2005 to 2007, the research included the merger and acquisition of many Indian business sectors, such as banking, aviation, software, steel, FMCG, petroleum, telecom, and energy. It included examining the relevant firms'

financial results and the merger's effects on the Indian corporate sector. Financial ratios including liquidity, solvency, and profitability have been utilized, along with chi-square and ttest, for this purpose. Outcome was that the merger had little immediate effect on profitability, but over time it improved returns for the corporate sector.

Soni et al. [21] explored the value of shareholder wealth, as well as the impact of preceding and subsequent M&A on market return and script return. Data on the top 10 Indian companies that were listed on stock markets between 2004 and 2014 were gathered via convenience sampling. This study has divided into three parts: First, a 2004–2014 trend study was conducted. The short-term impact on shareholder wealth was examined in the second component of the research, and the long-term impact was discussed in the third. Correlation was used to compare the closing prices of the script to the index values in order to accomplish this. Market return and script return have always been closely related. The findings indicated that while only 40% of firms saw favorable returns after an acquisition in the long term, the return prior an acquisition was much better in short run of 70% of the companies.

#### 4. Research Hypothesis

A research-based research hypothesis needs to be created in order to accomplish the objectives.

 $H_0^1$ : The performance of the Bank of Baroda before to merger is insignificant.

 $H_0^2$ : The performance of Bank of Baroda following the merger is insignificant.

#### **5.Research Methodology**

#### 5.1. Data and Sample of the study

Numerous articles studies that examined the effects of mergers and acquisitions both before and after they occurred on the banking sector have been evaluated. This research uses secondary data that has been gathered from a variety of published sources including websites, articles, online resources, annual reports, and other references. The research includes a number of indicators, such as Gross & Net NPA, operational profit, net profit, CAR, ROA, ROE, EPS, deposits & advances. Charts have been used to assess these elements in order to analyze the bank's status for the two years before and two years following the merger of banks.

Government-led mergers in the banking industry have increased dramatically over the past several years as a result of increased profitability, the elimination of bad loans, increased efficiency, a broader network, and other factors. The government decided to merge and acquire banks in order to reduce bad loans and boost efficiency[22]. SBI subsidiaries and Bharatiya Mahila Bank were merged with SBI in 2017, Vijaya Bank & Dena Bank were combined with BOB in 2019, and 10 public sector banks were reduced to four by 2020. There were 12 PSUs overall following these mergers. This study examines the effects of Vijaya Bank & Dena Bank merging with BOB both before and after.

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#### 5.2. History of Bank of Baroda

1908 The bank of Baroda Ltd. founded Bank of Baroda as a private bank.

1918 Mumbai received a branch.

1937 Ahmedabad received a branch.

1949 opened first branch in Delhi.

1953-1969 launched three offices in Fiji, five in Kenya, three in Uganda, one in London, and a single one in Guyana.

1969 The Bank of Baroda Ltd. was renamed Bank of Baroda once it was nationalized.

1969-1974 erected three branches in Mauritius, two in the UK, and one in Fiji.

1974 built two branches in the UAE after entering wealthy gulf nations (Dubai & Abu Dhabi).

1976 one regional rural bank out of 19 sponsored.

1977 for rural development, created Gram Vikas Kendra.

1984 introduced credit card.

1991 housing finance, asset management, and capital market operations created subsidiaries.

1996 IPO was used to enter the capital market.

1997 opening a new location in Durban.

1999 began depository operations.

2000-2001 created a distinct risk management department and hired Arthur Andersen India Pvt. Ltd. as a consultant. 2002 Debit card affiliation with VISA.

2004 inked an agreement to market non-life insurance products with National Insurance Company.

2004-2005 Expanding the ATM network, introducing 24-hour operations in five locations nationwide, offering multicity checks, and launching IT-enabled business information. 2006 created a Singapore an offshore banking business.

2007 cooperation with Life Insurance Company of UK-based, establishment of a branch for the younger generation, agreement with Dun & Bradstreet for SSI, joint venture for the assets management industry with Pioneer Global Assets Management, Italy, and introduction of gold coins.

2008-2009 opened new urban retail loan factories and introduced new loan products, signed a memorandum of understanding with auto manufacturers, opened four new branches in China, the United Arab Emirates, Uganda, and Kenya, and received approval from the China Banking Regulatory Commission to open a full-fledged branch in Guangzhou.

2009-2010 inaugurated 6 new retail loan factories (in Chandigarh, Gamdevi, Patna, Coimbatore, Ranchi, and Allahabad), created 3 loan factories, worked on the new project "Navnirmaan Baroda Next," and all branches utilized the Core Banking Solution (CBS) platform to provide Anywhere Anytime, the ability to conduct RTGS and NEFT transactions, and provided housing loan subsidies for urban poor people. Got a commercial banking license from BIA Bank in Malaysia, where merged ownership of BOB, IOB, and Andhra Bank, built 1 branch in New Zealand and 10 in the UK, and signed a MOC with the Dubai Multi Commodity Center Authority for Trade.

2010-2011 inaugurated seven new branches: one in the UK, five in the UAE, and one in New Zealand; offered loans secured by jewelry; introduced new term deposit products;

opened a branch in Noida for the next generation; opened five loan factories (in New Delhi, Raipur, Ludhiana, Nasik, and Jodhpur); and introduced the Baroda Pensioners Savings Account and the Jeevan Surekha Savings Account. Provided a mobile banking option and expanded the banking network. 2013 established the 100th branch in Dubai, started a loan factory for agriculture, and expanded the availability of e-banking services.

2014 introduced door-to-door banking services and creative services for rural development.

2016 adopted social media sites like Twitter, YouTube, and Facebook, created the Navodaya initiative, and backed FIFA Under-17 World Cup.

2017 offered digital cash management and supply chain finance, and also utilized Instagram to demonstrate the bank's existence.

2018 released the Kisan app using the Linked in platform to support bank presence.

2020 presented BOB NOWW for cutting-edge banking.

2021 BOB World was introduced, the website was centralized, and the consumer was given information through KYC for creating an online account.

2022 created the Quora platform for the bank's presence, won a wonderful place to work award, and became the bank with the greatest technology usage

#### 5.3. Mergers with Bank of Baroda

1958 The Hind bank merged.

1961 merged with The New Citizen bank ltd.

1963 Surat Banking Corporation merged.

1964 acquired the Tamil Nadu Central Bank and Umaraon Peoples Bank.

1972 merged the Ugandan business of Bank of India

1975 bought the bulk of the shares in Nainital Bank and Bareilly Corporation Bank in Uttar Pradesh.

1988 merger of Delhi's 34 branches of Traders Bank Ltd.

1993 merged the London branch of Union Bank of India and Punjab & Sind Bank.

1999 The Bareilly Corporation Bank merged.

2002 The Benares State Bank Ltd. merged.

2004 The South Gujarat Local Area Bank merged.

2019 Merger of Dena Bank and Vijaya Bank.

#### **6.Financial Analysis**

Following is a financial study of Bank of Baroda before and after its merger with Vijaya Bank and Dena Bank:

Standalone operating profit for Bank of Baroda before their merger into Vijaya Bank and Dena Bank was Rs. 12,006 crore and Rs. 13,487 crore on March 31, 2018 and March 31, 2019, respectively, while for the two years following the merger, it was Rs. 18,896 crore and Rs. 20,630 crore on March 31, 2020 and March 31, 2021, respectively and operating profit of Vijaya Bank was rs 3,098 crore while Dena bank have a loss of rs. 1,923 crore. In the two years following the merger, the bank's standalone net profit was rs. 546 crore and rs. 829 crore on the corresponding 31 March, 2020 and 31 March, 2021. In the two years prior to the merger, loss

Table 1. List of Recent merger of Public Sector Banks

Sr. No.	Acquirer/Bidder Banks	Acquired/Merged/Target Organizations	Year
1.	Indian Bank	Allahabad Bank	2020
2.	Punjab National Bank	Oriental Bank of commerce	2020
		United Bank of India	
3.	Union Bank of India	Andhra bank	2020
		Corporation Bank	
4.	Canara Bank	Syndicate Bank	2020
5.	Bank of Baroda	Dena Bank	2019
		Vijaya Bank	
6.	State Bank of India	State Bank of Bikaner & Jaipur	2017
		State Bank of Patiala	
		State Bank of Mysore	
		State Bank of Travancore	
		State Bank of Hyderabad	
		Bharatiya Mahila Bank	

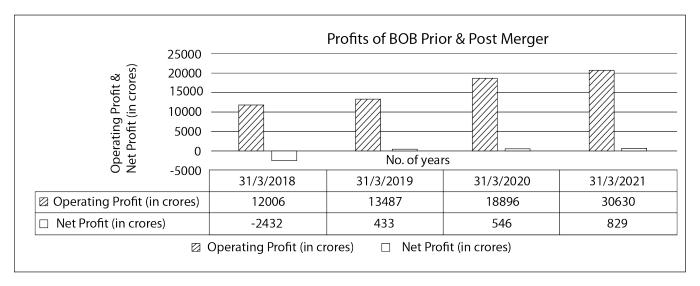


Figure 1. Profits of BOB (Source: Annual report of BOB)

was rs. 2,432 crore and profit rs. 434 crore in 2018 and 2019 respectively and the net loss earned by Dena bank while net profit of Vijaya bank was rs.727 crore. If the post-merger scenario is examined, operating profit will improve by Rs. 5,409 and Rs. 7,143 in 2020 and 2021, respectively, over 2019, and net profit would increase by Rs. 112 crore and Rs. 395 crore, respectively, over 2019.

Non-Performing Assets (NPA) at Bank of Baroda before the merger totaled Rs. 56,480 crore (gross) and Rs. 23,483 crore (net) in 2018 and Rs. 48,233 crore (gross) and Rs. 15,610 crore (net) in 2019. While before merger Dena bank has Rs. 16,361 crore (gross) and Rs. 7,839 crore (net) and Vijaya bank has Rs. 7,526 crore (gross) and Rs. 5,021 crore (net) NPA. In contrast, following the merger, the bank's NPA rose to Rs. 69,381 crore (gross) and Rs. 21,577 crore (net) in 2020 and Rs. 66,671 crore (gross) and Rs. 21,800 crore (net) in 2021. Both the gross and net NPA are up after the merger, which is alarming.

The graph below illustrates the percentage of NPA for Bank of Baroda before and after the merger, demonstrating a decline in both gross and net NPA. before the merger NPA was

12.26% gross and 5.49% net in 2018 and it was 9.61% gross and 3.33% net in 2019. After the merger, the NPA was 9.4% gross and 3.13% net in 2020, and it was 8.87% gross and 3.09% net in 2021. If the post-merger environment is examined, both gross and net NPA will decline as compared to 2018 and 2019.

The bank's capital in proportion to risk-weighted assets is measured using the capital adequacy ratio (Basel-III). Prior to the merger, Bank of Baroda's CAR was 12.13 and 13.42 percent, which risen to 13.3 and 14.99% in 2020 and 2021, respectively Before merger Dena bank's CAR was 11% and 13.90% of Vijaya bank. According to a post-merger analysis, the CAR rate has improved, indicating that the bank is in a better position to cover losses owing to sufficient capital.

In the wake of the Vijaya bank and Dena bank merger, Bank of Baroda enjoys higher earnings per share. In 2018 and 2019, the EPS was Rs. -10.53 and Rs. 1.64, respectively. After the merger, the EPS was Rs. 1.36 in 2020, a decline from 2019, but Rs. 1.78 in 2021, a rise from the preceding merger. Before merger Dena bank has also negative (18.06) EPS while 6.83 & of Vijaya bank. The EPS situation follow-

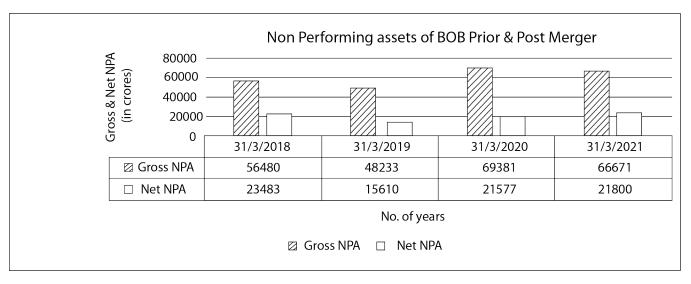


Figure 2. NPA of BOB (Source: Annual report of BOB)

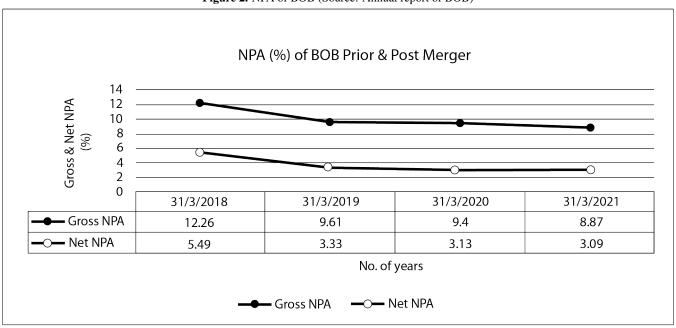


Figure 3. NPA (percent) of BOB (Source: Annual report of BOB)

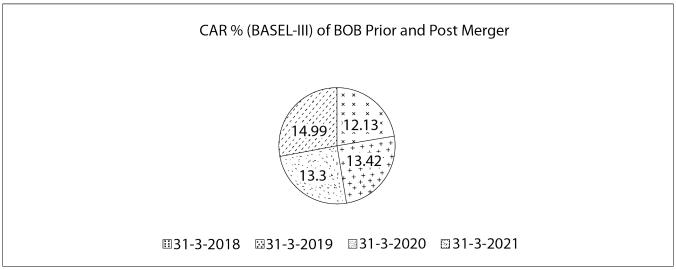


Figure 4. CRA (percent) (BASEL-III) of BOB (Source: Annual report of BOB)

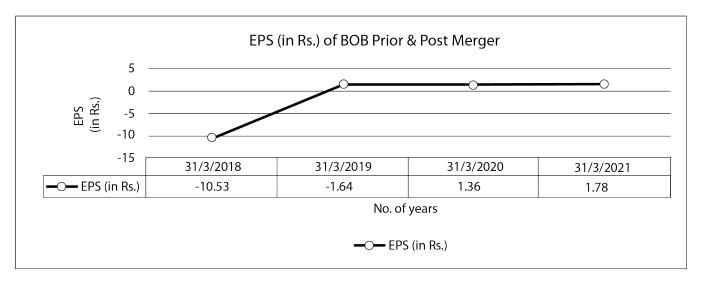


Figure 5. EPS (in Rs) of BOB (Source: Annual report of BOB)

ing the merger reveals the banks' profitability as well as the worth of each share for future expansion.

A graph compares Bank of Baroda deposits and advances before and after a two-year merger. Deposits were Rs. 5,91,315 crore and Rs. 6,38,690 crore before the merger, but they were Rs. 9,45,984 crore and Rs. 9,66,997 crore after the merger, demonstrating the growth in deposits. Deposits are more than advances. It was Rs. 4,27,432 crore and Rs. 4,68,819 crore before the merger. Deposits of Dena bank was Rs. 1,06,130 crore and Rs. 1,57,288 crore of Vijaya bank. While advances of Dena bank was Rs. 65,582 crore and Rs. 1,16,165 crore of Vijaya bank. After the merger, it was determined that there had been a rise in both deposits and advances.

Bank of Baroda's return on equity (ROE) was negative in 2018 but improved to 1.18 in 2019. After the merger, the bank's ROE has improved which means demonstrating the improvement in the bank's financial situation. Although return on assets (ROA) was negative in 2018, was up in 2019. Before merger Dena bank has negative (20.89%) ROE and 40.74% ROA while Vijaya bank has 8.98% ROE and 0.44% ROA. Following the merging of the banks, the ROA result has improved, demonstrating the bank's improved financial performance. Positive ROE & ROA are profitability indicators, whereas negative ROE & ROA showed that the bank had suffered losses.

#### 7. Conclusion

The financial backbone of the economy is the banking sector, and via mergers and acquisitions, banks are increasingly playing a significant role. To enhance the financial status of the banks, the government has made many decisions regarding bank mergers. When a weak bank merges with a powerful bank, the weak bank's financial situation is better, and

even weak banks are able to survive in the nation. The massive merger of Bank of Baroda, Vijaya Bank, and Dena Bank is covered in the paper. The merger decision took effect on April 1, 2019, and BOB became the third-largest public bank in the nation to serve the general public as a result of the merger. To analyze the status of the bank after the merger, the study used data from the annual reports of BOB for the two years prior to and following the merger.

Operating earnings and net profits both grew as a result of the merger, reaching Rs. 18,896 crore (operating profit) by 40.11% and Rs. 546 crore (net profit) by 25.81% in 2020 and Rs. 20,630 crore (operating profit) by 52.96% and Rs. 830 crore (net profit) by 91.01% in 2021compared to 2019 of Bank of Baroda. The capital adequacy ratio has also altered; it decreased by 0.12% in 2020 but increased by 1.57% in 2021, indicating an improved ability of the bank to handle unforeseen losses. Earnings per share fell from Rs. 1.64 to Rs. 1.36 in 2020, but rose to Rs. 1.78 in 2021.

Following the merger, the percentage of Return on Assets and Return on Equity both increased, highlighting the bank's improved status. Deposits grew by 48.11% and 51.40%, respectively, in 2020 and 2021 compared to 2019, indicating a rise in the liabilities. Additionally, advances will grow by 47.20% in 2020 and 50.66% in 2021, which will result in the bank lending to more different entities. The bank's income comes from interest on advances, which boosts its earning potential. Non-performing assets have grown on both a gross and net basis. In comparison to 2019, it climbed by 43.85% (gross) and 38.23% (net) in 2020, and by 38.22% (gross) and 39.65% (net) in 2021. The problem for the bank is to minimize NPA since an increase in NPA is not good for the expansion of banks. After the merger, Bank of Baroda's overall condition significantly improved, and the public's service area was expanded.

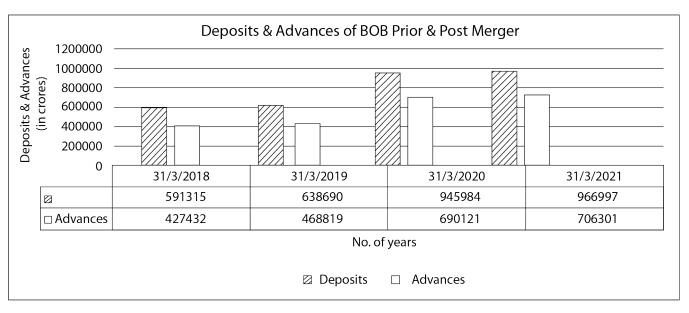


Figure 6. Deposits and Advances of BOB (Source: Annual report of BOB)

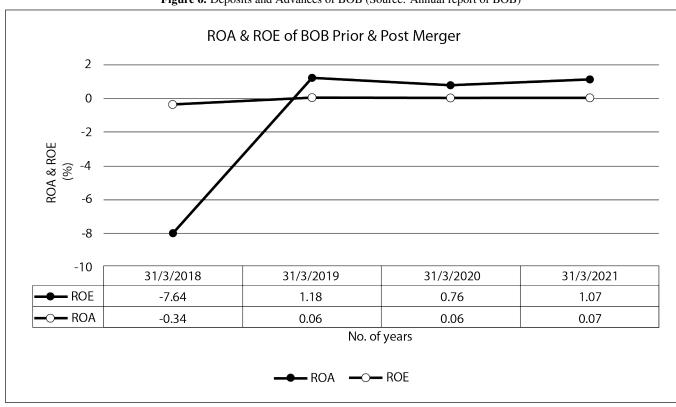


Figure 7. ROA and ROE of BOB (Source: Annual report of BOB)

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#### **Conflict of Interest**

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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