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## **MERGER AND ACQUISITION IN INDIAN BANKING SECTOR A CASE STUDY ON BANK OF BARODA**

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### **ABSTRACT :**

These days, mergers and acquisitions are essential to the growth of the Indian banking industry. There are two methods to do this: revenue growth and cost reduction. Mergers and acquisitions become routine. Bank mergers are one way to strengthen the banking sector and the Indian economy. The Indian government is working on a program that involves the merger of public-sector banks. On April 1, 2019, the Bank of Baroda merged with Vijaya Bank and Dena Bank. As a financial and economic cornerstone for India, Bank of Baroda became the country's second-largest public sector bank and third-largest bank after the merger. The mergers and acquisitions (M&A) that took place in India are the subject of this study. With a combined geographic reach of 9,490 branches, 13,400 ATMs, 85,678 employees working in 9,490 branches, and more than 120 million customers, the state-run Bank of Baroda is currently the second-largest public sector bank in India after merging with Dena and Vijaya Bank. The Banks tried to sustain their expansion by branching out into several areas. There were also clear indications of competition in the financial sector. To safeguard themselves and keep their place in the financial sector, the banks have started to repress their competitors.

**KEYWORDS:** Financial markets, Bank of Baroda, Vijaya Bank, Dena Bank, mergers and acquisitions, and profitability.

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### **INTRODUCTION :**

The Indian banking sector has seen a lot of mergers and acquisitions. Many governmental and private banks, as well as other institutions engaged in mergers and acquisitions, are present in India. Taking advantage of scale economies is the main reason for mergers and acquisitions in the banking sector. Mergers and acquisitions have played a major role in the restructuring of India's industrial sector since World War II. The Second World War's political and economic conditions resulted in mergers and acquisitions (M&A) that were successful.

Any economy may gain a lot from mergers as a source of growth, but particularly one that is somewhat stagnant. Mergers and acquisitions (M&A) are seen to be a reasonably quick and efficient way to incorporate new technology and access new financial markets. used by companies to strengthen and preserve their position in the market. The financial services industry and corporate restructuring have profited immensely from mergers and acquisitions (M&A). Two or more organizations combine when one or more of them directly purchases the net assets of the other company or companies. The merger does not result in the creation of a new business.

An acquisition is a series of transactions in which a firm takes over (an individual, a group of people, or a company) or gains control over a company's assets, either directly by gaining custody of those assets or indirectly by gaining control over its management. In an acquisition, the buyer is far greater than the seller.

Banks are required to abide by the 1949 Indian Companies Act, Banking Regulation Act, SEBI, and Reserve Bank of India laws pertaining to mergers and acquisitions. Mergers and acquisitions are a drawn-out process, and choices must be made after carefully weighing all the variables. The Indian corporate sector was heavily regulated before liberalization, but once the government initiated the reform process in 1991, businesses started utilizing a variety of growth and expansion strategies.

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### **REVIEW OF LITRATURE :**

- Vennet (1996) examined how mergers and acquisitions (M&As) affected banks' efficiency and profitability. 492 takeovers from 1988 to 1993 were included in the study. The target banks perform worse in domestic acquisitions, but they are unable to change the situation.
- Jay and Kumar (2006) claimed that because of the stringent administrative regulations that led to a surge in mergers and acquisitions within the Indian banking sector, there have been many causes for these transactions and that they continue to pique the interest of researchers.
- Manoj and Jagandeep (2008) examined the impact of merger announcements from five Indian banks on the shareholder bank. Times Bank merged with HDFC Bank, Bank of Madurai merged with ICICI Bank, ICICI Ltd merged with ICICI Bank, Global Trust Bank merged with Oriental Bank of Commerce, and Bank of Punjab merged with Centurion Bank.

- Pankaj and Sushant (2011) It had a positive effect on the companies' profits, which generally made liquidity worse. Organizations that struggled with liquidity management may have been able to benefit from the synergies generated by mergers and acquisitions (M&As) after a few years of M&As.
- Rhoades (1998) collected nine case studies from nine authors about how bank mergers affect efficiency. Mergers selected for analysis were those that seemed to have a reasonable chance of producing efficiency gains. Because of this, they usually included relatively large banks with a lot of market overlap, and most of them happened in the early 1990s, when banking efficiency was getting a lot of attention.

Mergers and acquisitions (M&As) in the Indian banking industry have been the subject of numerous studies, however the majority of them concentrate mostly on short-term effects and financial performance. Research on the long-term operational effectiveness, personnel integration, and consumer impression after mergers is, nevertheless, scarce. Little is known about the effects of post-merger service quality, technology integration, and cultural alignment. Furthermore, there are no comparable studies with other bank mergers in the public sector. By examining the Bank of Baroda, Vijaya Bank, and Dena Bank merger's wider ramifications beyond financial performance, this study seeks to close these gaps and offer a more thorough understanding of its long-term impacts.

### 3 RESEARCH METHODOLOGY :

#### 3.1 The Objectives of the study

- 3.1.1 To research the causes of bank mergers and acquisitions in the Indian banking industry.
- 3.1.2 To comprehend the effects of the mega-merger on the Bank of Baroda.

#### 3.2 The hypotheses of the study

- **H0:** There is no significant impact of stock prices of Bank of Baroda during pre-acquisition and post-acquisition.
- **H1:** There is significant impact of stock prices of Bank of Baroda during pre-acquisition and post-acquisition.

The study population is Bank of Baroda. The data being used for the study is secondary data, where the stock prices have been obtained. Using E-views software the analysis is performed. The two models that are being used in the study are Serial Correlation and Normality Test.

### DATA ANALYSIS :

In research, data analysis is the process of methodically looking at data to find trends, connections, and patterns that support hypotheses and enable researchers draw well-informed conclusions. It covers a range of statistical methods, including inferential statistics, which include regression analysis, correlation studies, and hypothesis testing, and descriptive statistics, which use metrics like mean, median, and standard deviation to characterize data. Assumption testing is a crucial component of data analysis that guarantees the reliability of statistical models. The normality and serial correlation tests are two examples of crucial assumption tests. In order to determine whether residuals in a regression model are correlated over time—a violation of the principle of independence that may result in wasteful estimates—the serial correlation test is used. The Breusch-Godfrey and Durbin-Watson tests are frequently used to assess serial correlation. The normality test, on the other hand, looks at whether a dataset has a normal distribution, which is a basic premise in many statistical analysis. The Shapiro-Wilk test, the Kolmogorov-Smirnov test, and graphical techniques like Q-Q plots and histograms are used to evaluate normality. By ensuring that data satisfies these presumptions, research findings become more reliable and statistical interpretations become more precise and significant.

#### Serial correlation test

Breusch-Godfrey Serial Correlation LM Test:

|               |          |                     |        |
|---------------|----------|---------------------|--------|
| F-statistic   | 2884.460 | Prob. F(2,389)      | 0.0000 |
| Obs*R-squared | 368.1739 | Prob. Chi-Square(2) | 0.0000 |

Test Equation:

Dependent Variable: RESID Method: Least Squares

Date: 02/28/23 Time: 11:21 Sample: 4/02/2018 11/08/2019 Included observations: 393

Pre sample missing value lagged residuals set to zero.

| Variable   | Coefficient | Std. Error | t-Statistic | Prob.  |
|------------|-------------|------------|-------------|--------|
| I_____DATE | -0.000129   | 0.000976   | -0.131961   | 0.8951 |
| C          | 94.96368    | 719.7276   | 0.131944    | 0.8951 |

|                    |           |                       |           |        |
|--------------------|-----------|-----------------------|-----------|--------|
| RESID(-1)          | 0.978535  | 0.050733              | 19.28789  | 0.0000 |
| RESID(-2)          | -0.010792 | 0.050736              | -0.212710 | 0.8317 |
| R-squared          | 0.936829  | Mean dependent var    | 2.64E-12  |        |
| Adjusted R-squared | 0.936342  | S.D. dependent var    | 13.07582  |        |
| S.E. of regression | 3.299096  | Akaike info criterion | 5.235300  |        |
| Sum squared resid  | 4233.890  | Schwarz criterion     | 5.275746  |        |
| Log likelihood     | -1024.736 | Hannan-Quinn criter.  | 5.251328  |        |
| F-statistic        | 1922.973  | Durbin-Watson stat    | 1.994483  |        |
| Prob(F-statistic)  | 0.000000  |                       |           |        |

It is clear from the above table that the Breusch-Godfrey Serial Correlation LM Test's F-statistic value is around 2884.460 with Prob. F (2,389). There are 393 observations in the time series data that is provided. We can conclude that there is autocorrelation in the provided time series since the null hypothesis cannot be accepted because the Prob. Chi-Square value of 0.0000 is less than 0.05 at the 5% level of significance.

#### Normality test

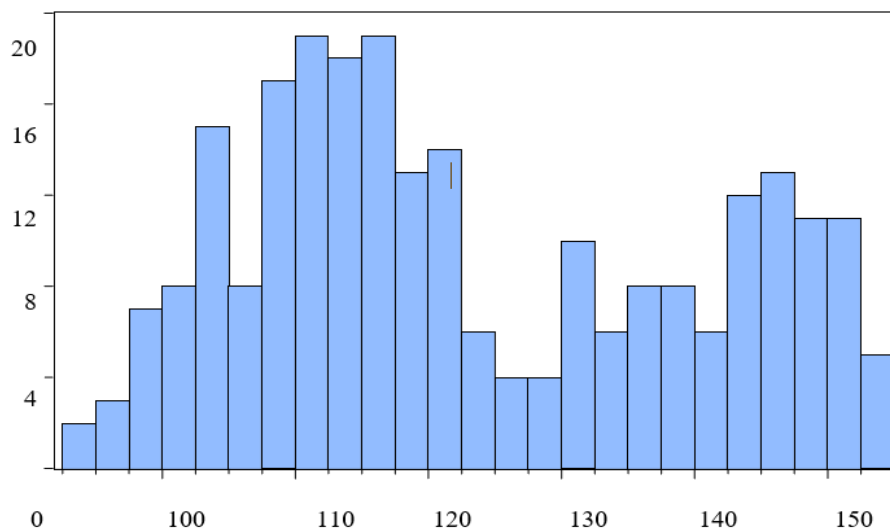


Figure 4.2.1

|                            |                 |
|----------------------------|-----------------|
| <b>Series: CLOSE</b>       |                 |
| Sample 4/02/2018 3/29/2019 |                 |
| <b>Observations 247</b>    |                 |
| Mean                       | 123.1773        |
| Median                     | 118.8000        |
| Maximum                    | 154.7500        |
| Minimum                    | 93.25000        |
| Std. Dev.                  | 16.63390        |
| Skewness                   | 0.311825        |
| <b>Kurtosis</b>            | <b>1.819668</b> |
| Jarque-Bera                | 18.34101        |
| Probability                | 0.000104        |

Figure 4.2.2

Based on the likelihood value, a conclusion may be made from the given table. At the 5% level of significance, we can reject the null hypothesis for normality and determine that the observed series has a normal distribution if the Jarque-Bera probability value (P-Value=0.000104) is less than 0.05.

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## CONCLUSION :

Both market entry and market expansion strategies have relied heavily on mergers and acquisitions (M&A). The combining of two companies in which one company or bank is completely taken over by another is known as a merger or acquisition. The less important company merges into the more important company and loses its identity. Consolidation through mergers and acquisitions is one of the best strategies for changing the composition of private banks. The Banks expanded in several areas in an attempt to keep growing. There was also a significant indication of competition in the banking sector. In order to be safe and survive in the financial sector, banks have begun to encircle their competitors. This marked the official beginning of the merger era in India's banking sector. To increase revenue, Baroda Bank, Dena Bank, and Vijaya Bank will need to develop innovative ways to increase revenue. Market transparency would be enhanced by reporting practices, improving accounting rules, and exposing them. Numerous constraints could affect the study's conclusions. It restricts generalizability to the banking industry as a whole by concentrating on certain banks. It is possible that the influence of economic volatility and regulatory laws on mergers has not been given enough thought. Furthermore, the study can prioritize short-term results over long-term sustainability. Not enough attention is paid to the challenges of operational and cultural integration as well as possible issues with financial reporting. These drawbacks imply that a more thorough examination that takes organizational, legal, and financial aspects into account would yield a more thorough comprehension of banking mergers and acquisitions.

This study emphasizes the effects of mergers and acquisitions (M&A) on market expansion, competitiveness, and financial stability as part of the restructuring of the banking sector. It highlights the need for banks to use innovative strategies to increase profitability following acquisitions. It also highlights how important open accounting practices are for increasing market confidence. Financial institutions and legislators can use these insights to enhance regulatory frameworks and ensure smooth integration processes in future acquisitions.

In order to determine the actual success of M&A transactions, future studies can examine the combined banks' long-term financial performance. Studies can also examine how mergers affect operational effectiveness, personnel retention, and consumer satisfaction. Broader insights might be obtained by comparing the results of M&A transactions in various businesses or international banking sectors. To further understand how technology affects the effectiveness of banking consolidations, studies on the impact of fintech and digital transformation in post-merger integration would be helpful.

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