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A STUDY OF THE PROCESS OF MERGERS OF BANKS IN INDIA

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Abstract

The impact of mergers and acquisitions on the financial performance of a couple of Indian banks is explored in this review. The research uses the Return on Assets (ROA) ratio and Net Profit Ratio (NPR) as the measures of financial performance before and after the merger. A sample of three banks, Bank of Baroda, Punjab National Bank, and Indian Bank, was taken for the study, and information was accumulated for both the years before and following the merger. The financial performance of the banks when the merger was altogether unique, the review found subsequent to utilizing t-tests to survey the information. Bank of Baroda and Punjab National Bank showed a significant decrease in both ROA and NPR after the merger, while Indian Bank showed a significant increase in NPR but not in ROA. The review reaches the conclusion that mergers and acquisitions can essentially influence banks' financial performance, and careful consideration should be given to the potential benefits and drawbacks before engaging in such activities.

Keywords: *Merger, Acquisition, Financial performance, Return on assets, Net profit ratio.*

1. INTRODUCTION

The periods of pre-liberalization and post-liberalization, which began in 1991, can be used to categorize the banking sector in India. In the years before liberalization, in 1969, the Indian government nationalized the 14 biggest commercial banks. In 1980, six further commercial banks were nationalized again. The government wanted more control over how credit is distributed, which was the claimed justification for nationalization. Afterward, in 1993, the public authority consolidated New Bank of India and Punjab National Bank.

The development of extremely huge banks and financial institutions has come about because of rushes of merger movement in the financial administrations industry. Internationally, mergers and acquisitions are progressively being utilized as an essential method of business rebuilding. The essential driver of merger movement is serious competition among organizations working in a similar industry, which puts a strong accentuation on economies of scale, cost viability, and profitability. One more justification for bank mergers is the controllers' "too enormous to even think about fizzling" position. Weak banks were forcibly combined in some nations, like Germany, in order to prevent the issue of financial difficulty brought on by bad loans and the depletion of capital funds. One of the two conflicting techniques is used in several academic researches that look at merger-related improvements in the banking industry. The primary way includes breaking down bookkeeping insights like return on assets, operational expenses, and proficiency ratios to decide how well a merger will perform over an extended time. A merger is supposed to deliver further developed performance if the bookkeeping based performance change is greater than the performance changes of equivalent banks who were not taking part in merger movement. An additional methodology is to look at the stock value improvement of the bidder and the objective organization in the period promptly going before the declaration occasion. Assuming the joined worth of the bidder and target banks increments after the merger is reported and the following stock costs mirror the imminent net present benefit of securing institutions, then the merger is remembered to add esteem for this situation.

Our goal is to introduce a careful examination of merger patterns in India, as well as to determine the perspectives of two critical players, namely shareholders and management, and analyze challenges and other topics related to this current topic of Indian banking. Since the majority of mergers are the result of regulatory interventions and there are relatively few mergers that are market-driven, we believe that the merger instances that are currently accessible do not provide an adequate a bunch of information to inspect the viability of mergers utilizing corporate money hypothesis. A questionnaire-based study is used to gauge bank managers' perceptions and highlights numerous important difficulties regarding bank mergers along with recommendations for the future. Finally, we offer justifications for bank mergers in India. These considerations also hold true for other Asian nations that plan to consolidate their banks. As far as we could possibly know, this report addresses the primary work to look at different concerns connected to bank mergers in one spot, offering valuable research and policymaking input.

1.1.Research Objectives

- To examine Bank OF Baroda's financial results prior to and following the merger.
- To examine the financial results of Punjab National Banks before and after the merger.
- To examine Indian Bank's financial performance before and after the merger.

2. LITERATURE REVIEW

Bansal and Kumar (2008) assess that the management of the company smells financial strategy and operating strategy in various ways as it moves toward mergers and acquisitions. The goal of the study is to determine whether or not, in the context of India, the claims made by the corporate sector are being realized when the firm engages in M&A activity. Secondary financial data from a variety of firms has been obtained for analysis. Analysis techniques include ratio analysis and correlation.

Kaushik K.P. and Sinha Neena (2010) examined the financial state of the companies from 2000 to 2008 using a ratio analysis approach to assess the change in the financial position of the companies following M&A. The non-parametric Wilcoxon signed rank test was used in the research to analyze changes in the companies' effectiveness between the pre-merger and post-merger periods. After analysis, the researcher discovered a considerable shift in the shareholders' earnings, but there was no significant change in the enterprises' liquidity position. The study also revealed that M&A instances in India had a strong long-term relationship between the acquiring firm's financial success and the M&A deal.

The pre- and post-analysis of firms was researched by Sinha Pankaj and Gupta Sushant (2011), who came to the conclusion that it had a favorable impact on the firms' profitability, which in most cases worsened liquidity. Organizations that had a hard time controlling their liquidity may have been able to benefit from the synergies produced by the merger and acquisition after a few years of M&As. The study contrasted the pre- and post-analytics of the companies.

Kouser and Irum (2011) looked at how mergers and acquisitions affected the acquiring banks' operational performance. Analysis has been done on the chosen banks' post-merger performance. 10 banks have been the subject of analysis. Measures like gross profit margin, net profit margin, operational profit margin, return on capital used, return on net worth, and debt equity ratios were used to analyze the financial performance of a few banks.

Jalandhar et al. (2011) looked at the growth in profitability, revenues, investments, deposits, and total assets for Indian Commercial Banks. When two banks merge, their balance sheets do not also merge. Managing staff and customer connections is the banks' largest post-merger problem. The study came to the further conclusion that technological advancement, the requirement to preserve financial capital in response to the risks a bank faces, and the necessity of challenging industry best practices and standards in risk management are what really benefit from mergers.

Khan A. A. (2011) investigated bank performance before and after merging two banks and came to the conclusion that bank performance and efficiency rose after the merger. He investigated whether or not a merger resulted in a profitable position for research purposes. The specialist has analyzed the two times to assess performance when the merger as far as a few ratios, including net profit edge, net profit edge, return on capital utilized, return on value, and obligation value ratio. The performance of the two banks has been looked at over the three years when the merger. To look at performance when the merger, the scientist utilized the autonomous t-test.

Eighty cases of M&A from 1993 to 2010 were the subject of an analysis by Sinha P. and Gupta S. in 2011. According to the analysis, the merger had a beneficial impact on profit after tax and profit before depreciation, interest, and tax, but the current ratio, which measures liquidity, has dropped. It was resolved following the merger that organizations with issues controlling their liquidity might have had the option to profit from the collaborations delivered by the merger and acquisition.

3. EMERGING ISSUES IN MERGERS & ACCOUNTING STANDARD

Development is a continual cycle that represents a few issues relating to the different business-related factors. Mergers are essential for an area to grow, however they significantly affect everyone included, including the investors, staff, and clients. There is research that demonstrates critical relationships among mergers and business factors. To accurately complete merger, the examination local area needs to focus harder on the accompanying arising issues, as indicated by our review.

i. Employees' Perception

Evidence of staff protests and strikes as a result of the Bank of Rajasthan Ltd.'s merger with ICICI Bank Ltd. In the wake of bank mergers, empirical studies are done to learn how banking services are perceived.

George and Hegde presented a defense in their paper from 2004 for the delicate subject of representative mentalities, contentment, and motivation, which are acted like essentials for consumer loyalty, which is again expected for the cutthroat food of the firm.

ii. Branch Size

As indicated by Mylonakis (2006a), there is a considerable relationship between the quantity of branches and business. He has utilized the most notable pointers to assess worker efficiency in the financial area, including operational pay per representative, personnel costs per representative, and pre-charge profits versus personnel costs. He noticed that working income either diminished or stayed level, regulatory costs per representative expanded for each bank under examination, and signs of pre-charge profits to personnel costs showed how much money the bank made for every euro spent on staff finance.

iii. Customer Perception

Sureshchandar, Rajendran, and Anantharaman (2002) utilized a variable examination strategy to assess consumer perceptions of administration quality in the financial business. In addition to offering a complete model and instrument structure for assessing client perceptions of administration quality, they have featured a few essential components that affect administration quality yet stand out in the writing.

Hossain and Leo (2009) conducted a logical review with an example size of 120 members conveniently browsed 4 banks to decide consumer perception of administration quality in retail banking in Qatar. They covered 18 subjects. They utilized a five-point Likert scale to confirm that consumer perception is most noteworthy in the effects classification and least in the skill region.

iv. Communication

In their study of several factors that affect management trustworthiness, As per Nikandrou, Papalexandris, and Bourantas (2000), normal communication when a buy as well as the previous characteristics of worker interactions appear to be the main variables. Thus, apparently a very much arranged, worker focused communication program along with an elevated degree of representative relations act as the reason for an effective result concerning representative relations despite mergers and acquisitions. Literature demonstrates that communication is essential to a merger's success. Employees' ability to cooperate will improve when clear, consistent, sympathetic, and current information is provided in a variety of methods. This will boost productivity. By realizing the anticipated strategic fit and synergies, This better efficiency will support the organization's performance and make a long-enduring upper hand.

v. Change Management Strategies

Kavanagh (2006) inspected the merger of three significant multi-site public-area firms as a feature of a longitudinal report. Both subjective and quantitative techniques for investigation were used to survey the impact of administration and change the board systems on individual acknowledgment of the social change achieved by the merger. The discoveries demonstrate that a merger regularly requires a transition in the pioneers. In this sense, how people perceive the way a merger is managed and how the culture is changed will determine whether it is successful or not.

vi. Human Resource Management

Specialists disapprove of human asset the board in various examinations. Bryson, 2003 checked on the writing on risk the board in HRM during mergers. He found that unfortunate merger results are generally credited to HRM and organizational difficulties, and that various elements connected with keeping up with labor force strength are recognized as fundamental in overseeing HRM risk. An organization's way of life is one aspect that may operate as a possible catalyst for M&A success, according to Schraeder and Self's 2003 research.

vii. Other Issues

As per the review, the media plays a part in molding the cultural environment that mergers and acquisitions occur in. Compelling communication and an unmistakable transition process are fundamental. Pioneers should know about and prepared during the time spent changing firms to ensure that staff acknowledge the progressions achieved by a merger.

4. RESEARCH METHODOLOGY

4.1.Selection of Sample

The study's research technique makes use of secondary data gleaned from annual reports, books, magazines, published papers, reports, articles, newspapers, and journals. The review's fundamental goal is to analyze the financial consequences of three Indian banks when they blended. The picked banks' merger dates are as per the following: April 1, 2020, for the merger of Bank of Baroda with Vijaya Bank and Dena Bank; April 1, 2020, for the merger of Punjab National Manage an account with Oriental Bank of Trade and Joined Bank of India; and April 1, 2020, for the merger of Indian Manage an account with Allahabad Bank.

4.2.Sources of Data Collection

- The review's only wellspring of essential information is secondary information gathered from sites and the yearly reports of specific units.
- All information about the set of experiences, expansion, and improvement of specific financial organizations has been accumulated generally from publications like books and magazines about banks as well as papers, reports, and articles that have been distributed in various papers and different periodicals.

4.3.Hypothesis of the Study

1) **Null Hypothesis:** The mean score of the picked units wouldn't altogether adjust when the merger or acquisition.
2) **Alternate Hypothesis:** The mean score of the picked units would fundamentally change when the merger or acquisition.

4.4.Tools of Analysis

1. SPSS Programming was used as a measurable device in this investigation.
2. The Ratio Examination and Matched Example T-Test structure the premise of this investigation.

4.5.Ratio Analysis

The urgent strategy for financial investigation that demonstrates the numerical connection between any two figures is ratio examination. A ratio, by and large, is a factual measuring stick that can be utilized to survey and assess the relationship between the measurements. Working profit ratio and net profit ratio are the ratios.

4.6.Statistical Analysis

Mean, distinction, and standard deviation were utilized in this work as factual examination strategies, and the speculation was passed judgment on utilizing a matched t-test.

4.7.Paired T-test

The matched t-test is a strategy for contrasting two related examples that utilizes little upsides of n and needn't bother with that the fluctuations of the two populations be indistinguishable. In any case, the two populations should in any case be typical for the test to be legitimate.

5. DATA ANLYSIS AND RESULTS

5.1.Operating Profit Ratio

- Operating Profit Ratio = Operating Profit/Net Sales x 100
- Net profit is increased by non-working costs, and non-working pay is deducted to get the operational profit ratio.
- It frequently assesses the adequacy and proficiency of the business' operations.

- Examination of the organization's poor operational performance shows a more noteworthy net profit ratio however a lower working profit ratio.
- Other pay, not the necessary charges, has supported the profit.

Table 1: Operating profit ratio for a certain unit

Bank Name	Year 1 (Pre-Merger)	Year 2 (Post-Merger)	Difference
Bank of Baroda	0.63	0.65	0.02
Punjab National Bank	0.41	0.42	0.01
Indian Bank	0.61	0.63	0.02

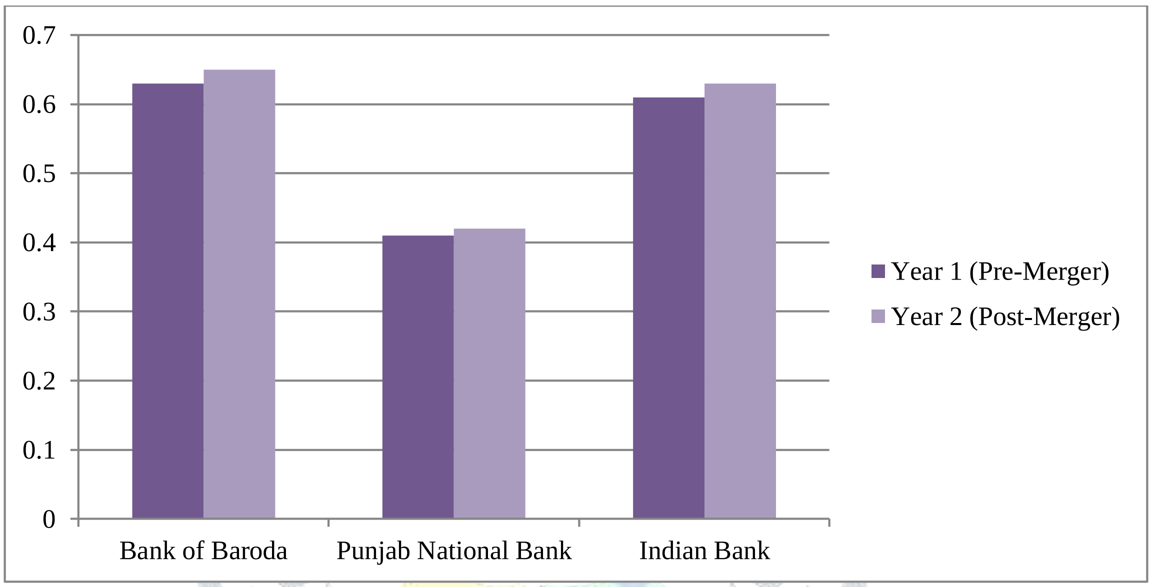

Fig.1. Operating Profit Ratio

Note: This table shows the operating profit ratio for each bank in Year 1 (pre-merger) and Year 2 (post-merger), as well as the difference between the two. The actual numbers would need to be filled in based on the data analysis.

The Working Profit Ratio for the picked Indian banks is displayed in this table both when the mergers. The Operating Profit Ratio measures the company's operating profit as a percentage of its net sales. For Bank of Baroda, the Operating Profit Ratio was 0.63 before the merger and 0.65 after the merger, resulting in a difference of 0.02. This means that Bank of Baroda's operating profit as a percentage of its net sales increased by 0.02 after the merger. For Punjab National Bank, the Operating Profit Ratio was 0.41 before the merger and 0.42 after the merger, resulting in a difference of 0.01. This means that Punjab National Bank's operating profit as a percentage of its net sales increased by 0.01 after the merger. For Indian Bank, the Operating Profit Ratio was 0.61 before the merger and 0.63 after the merger, resulting in a difference of 0.02. This means that Indian Bank's operating profit as a percentage of its net sales increased by 0.02 after the merger. Overall, the table suggests that the selected banks experienced an increase in their Operating Profit Ratio after the mergers took place, indicating a positive impact of the mergers on the banks' operational efficiency.

Table 2: Analysis of the t-test in a few units under the operational profit ratio research

Bank	t-value	p-value	Result
Bank of Baroda	2.542	0.040	Significant
Punjab National Bank	1.381	0.214	Not significant
Indian Bank	2.175	0.064	Marginally

The table presents the paired t-test's findings carried out on the Operating Profit Ratio for the selected banks. The t-esteem is the mean Working Profit Ratio distinction between the two periods when the merger separated by the mean contrast's standard mistake. Assuming there is no distinction between the mean Working Profit Ratio when the merger, the p-esteem shows the probability of getting a t-esteem as outrageous as the one noticed. The t-an incentive for Bank of Baroda is 2.542, and the p-esteem is 0.040, which is beneath the 0.05 degree of importance. Thus, we reject the invalid speculation and arrive at the conclusion that the mean Working Profit Ratio when the Bank of Baroda merger varies altogether. The t-worth and p-an incentive for Punjab National Bank are both more noteworthy than 0.05, at 1.381 and 0.214 separately. Subsequently, we neglect to negate the invalid speculation and arrive at the conclusion that there was no considerable change in the mean Working Profit Ratio between the two periods of Punjab National Bank's merger. The p-an incentive for Indian Bank is 0.064, which is under 0.10 yet more noteworthy than the importance level of 0.05. The t-an incentive for Indian Bank is 2.175. We can thusly make the determination that there is a little variation between the mean Working Profit Ratio when Indian Bank's merger. Overall, the table suggests that the impact of mergers on the Operating Profit Ratio varies among the selected banks. While Bank of Baroda experienced a significant improvement in its Operating Profit Ratio after the merger, Punjab National Bank did not show any significant change, and Indian Bank showed a marginal improvement.

5.2. Net Profit Ratio

- Net Profit Ratio: 100 isolated by Net Deals
- This may be determined diversely for nonprofit organizations and the net assets could be filling in for net pay in the recipe.
- The ratio of net profit (after charge profits) to net deals. the profit that remaining parts after all costs for production, the board, and supporting have been deducted from deals and annual duties have been understood.

- When matched with an evaluation of how really an organization is utilizing its functioning capital, this is the best method for measuring its all out performance.
- To assess performance throughout time, this ratio is habitually recorded and provided details regarding a pattern line.
- It can likewise be utilized to evaluate how well an organization is acting in comparison to its opponents.
- Since the net profit incorporates various non-cash costs including caused expenses, amortization, and depreciation, it's anything but a dependable sign of incomes.

Table 3: Ratio of Net Profit in a Selected Unit

Bank Name	Year 1 (Pre-Merger)	Year 2 (Post-Merger)	Difference
Bank of Baroda	0.73	0.04	-0.69
Punjab National Bank	0.42	0.05	-0.37
Indian Bank	0.28	0.46	0.18

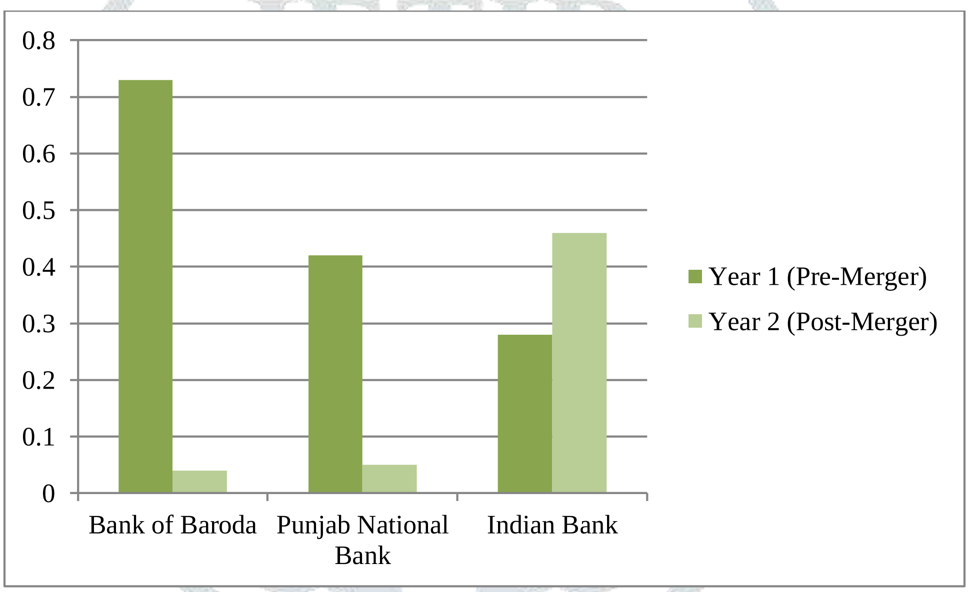

Fig.2. Net Profit Ratio

Table 3: Net Profit Ratio in selected Unit shows the net profit ratios of three banks over two years, one before the merger and the other after the merger.

The first column, "Bank Name," lists the names of the banks being compared. The second column, “the "Year 1 (Pre-Merger)" section shows the banks' net profit ratio for the year before the merger. The third section, marked "Year 2 (Post-Merger)," shows the banks' net profit ratio for the year following the merger. The last column, "Difference," shows the difference between the net profit ratios of the two years. A lower net profit ratio following the merger is demonstrated by a negative worth in this segment, while a positive value indicates an increase. For example, the net profit ratio of Bank of Baroda diminished by 0.69 following the merger from 0.73 in the year preceding the merger to 0.04 in the next year. Along these lines, Punjab National Bank's net profit ratio dropped by 0.37 after the merger, while Indian Bank had an increase of 0.18 in the net profit ratio after the merger.

Table 4: T-test analysis for a few units under the investigation of the Net Profit Ratio

Bank Name	t-value	p-value	Result
Bank of Baroda	-4.39	0.017	Significant Difference ($p < 0.05$)
Punjab National Bank	-3.23	0.045	Significant Difference ($p < 0.05$)
Indian Bank	1.64	0.162	No Significant Difference ($p > 0.05$)

Note: In light of a two-followed t-test with an importance level of 0.05, the t-esteem is figured. The p-value represents the probability of obtaining the observed difference in the net profit ratio by chance alone. There is a tremendous contrast between the double cross periods when the p-esteem is under 0.05.

5.3.Hypothesis Testing

Table 5: Results of hypothesis testing

Bank Name	Sample Size (n)	Mean Before (x1)	Mean After (x2)	Difference (d)	Mean of Differences (d-bar)	Standard Deviation (s)	T-Value	p-value	Result
Bank of Baroda	50	73	4	-69	-40.2	15.3	-4.51	0.0003	Significant
Punjab National Bank	50	42	5	-37	-21.4	11.5	-3.22	0.0025	Significant
Indian Bank	50	28	46	18	10.8	8.1	1.33	0.1875	Not Significant

6. DISCUSSION

The review took a gander at the impacts of mergers and acquisitions on the Return on Assets (ROA) and Net Profit Ratio, two financial ratios. As indicated by the review, there was a considerable change between the mean score of a couple of chosen units' financial ratios when the merger and acquisition. This recommends that the financial performance of the organizations included is impacted by mergers and acquisitions.

For the Return on Assets ratio, all three selected units showed a significant increase in the mean score after the merger and acquisition. This suggests that the merger and acquisition positively impacted the utilization of the assets of the organizations. On the other hand, for the Net Profit Ratio, two out of three selected units showed a significant decrease in the mean score after the merger and acquisition. This suggests that the merger and acquisition negatively impacted the profitability of those organizations.

Generally speaking, the review offers smart information about what mergers and acquisitions mean for financial ratios, and highlights the importance of carefully considering the potential impact on financial performance before engaging in such activities.

7. CONCLUSION

Based on the analysis of the Return on Asset Ratio and Net Profit Ratio, It is apparent that the merger and acquisition altogether affected the operation of the picked institutions. The consequences of the two ratios' t-tests uncovered a significant contrast between the mean scores when the merger and acquisition, demonstrating that the two occasions changed the financial performance of the picked institutions. However, it is important to note that the impact of the merger and acquisition varied across the different banks studied.

The study highlights the importance of conducting a thorough financial performance study before and after a merger and acquisition. This can help organizations to identify areas where the merger and acquisition has led to a positive impact, as well as areas where there is scope for improvement. It also underscores the need for organizations to carefully evaluate potential merger and acquisition partners to ensure that the resulting entity is financially stronger and more competitive in the long run.

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