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Financial Technology behind banks and institutional reform science: With Special Emphasis of Case of Bank of Baroda, Vijay Bank and Dena Bank Merger

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Abstract:
Objectives: In recent years, the Indian government has initiated several mergers among public sector banks (PSBs) to consolidate the banking sector and strengthen the financial system. Here are some notable mergers involving Indian PSBs: Merger of Bank of Baroda, Vijaya Bank, and Dena Bank (2019): This merger created the third-largest bank in India by assets. Bank of Baroda absorbed Vijaya Bank and Dena Bank to enhance operational efficiency, achieve economies of scale, and improve the overall performance of the merged entity. Merger of State Bank of India (SBI) with its associate banks (2017): SBI merged with five of its associate banks, namely State Bank of Bikaner & Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala, and State Bank of Travancore. This merger resulted in the formation of a larger SBI, consolidating its market position and enabling cost synergies and improved efficiency. Merger of Oriental Bank of Commerce and United Bank of India with Punjab National Bank (2020): Punjab National Bank (PNB) merged with Oriental Bank of Commerce (OBC) and United Bank of India (UBI) to create the second-largest PSB in India. The merger aimed to strengthen PNB's capital base, enhance its business reach, and improve operational efficiency. Merger of Syndicate Bank with Canara Bank (2020): Canara Bank merged with Syndicate Bank to create the fourth-largest PSB in India. The merger aimed to improve operational efficiency, strengthen the balance sheet, and create a larger entity with enhanced business capabilities. These mergers were driven by various objectives, including achieving economies of scale, enhancing operational efficiency, reducing overhead costs, and creating stronger banks capable of dealing with economic challenges. The consolidation of PSBs is also expected to improve governance, risk management, and credit quality in the banking sector.

Method: Thorough statistical analysis pertaining to T test was conducted to understand the nature of deviation in pre and post-merger phases.

Findings: The study uniquely found a substantial increase in profitability and reduction in NPA ratings in post mergers and acquisition phases.

Novelty: A thorough literature survey was conducted globally and a gap was realized wherein technology deviation on mergers was seen to be a functional trigger in profitability in banking industry. Various functional triggers which were earlier not realized were found to create substantial difference in Net banking ratings.

Key Words: Mergers, Acquisition, Restructuring, Banking Sector, Synergies, technology, fintech

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1. **Introduction:**

Mergers and acquisitions (M&A) can have a significant impact on both the acquiring company and the target company across various variables. Here are some of the key impacts:

1. Financial Performance: M&A deals can impact the financial performance of both the acquiring and target companies. While successful acquisitions can lead to increased revenues, cost synergies, and improved profitability, poorly executed deals can result in financial losses, increased debt burdens, and reduced profitability.
2. Market Share and Competitive Position: M&A transactions often aim to strengthen market share and enhance the competitive position of the acquiring company. By acquiring the target company, the acquirer can expand its customer base, enter new markets, or gain access to new technologies, thereby increasing its market power.
3. Human Resources: M&A deals can have a significant impact on the employees of both the acquiring and target companies. Workforce restructuring, including layoffs or reassignments, is often a part of integration strategies to achieve cost synergies. However, retaining key talent and integrating employees effectively is crucial to ensure a smooth transition and maintain productivity.
4. Brand Value and Reputation: M&A deals can impact the brand value and reputation of both the acquiring and target companies. Positive M&A outcomes can enhance brand value by leveraging the reputation, customer base, or product portfolio of the target company. On the other hand, poorly executed deals or negative market reactions can lead to brand dilution or reputational damage.
5. Operational Efficiency and Synergies: M&A transactions aim to achieve operational synergies and efficiencies by combining resources, eliminating duplications, and streamlining processes. Successful integration can lead to cost savings, economies of scale, improved supply chain management, and increased productivity. However, challenges in integrating operations and systems can hinder the realization of expected synergies.
6. Innovation and R&D Capabilities: M&A deals can impact innovation and research and development (R&D) capabilities. Acquiring a company with advanced technologies or intellectual property can enhance the acquiring company's innovation potential. Alternatively, M&A transactions may result in a diversion of resources away from R&D, potentially impacting the target company's innovation capabilities.
7. Regulatory and Legal Considerations: M&A transactions are subject to regulatory and legal considerations. Antitrust regulations and competition authorities assess the potential impact on market competition and may require divestments or impose conditions. Compliance with regulatory requirements and legal obligations is crucial to avoid penalties or legal challenges.

It's important to note that the impact of M&A deals can vary depending on the specific circumstances, industry dynamics, and the execution of the integration process. Thorough due diligence, effective integration planning, and clear communication are essential to maximize the positive impacts and mitigate potential risks and challenges associated with M&A transactions. some notable merger cases in India in recent years and discuss the potential synergies that may arise from such mergers based on historical examples: Walmart's acquisition of Flipkart: In 2018, Walmart acquired a majority stake in Flipkart, one of India's largest e-commerce companies. This merger aimed to leverage Flipkart's strong presence in the Indian market and Walmart's retail expertise to create synergies in terms of supply chain management, logistics, and leveraging their respective customer bases. Vodafone-Idea merger: In 2018, Vodafone India and Idea Cellular merged to form Vodafone Idea Limited, creating the largest telecom operator in India. This merger aimed to achieve cost synergies by consolidating infrastructure, eliminating duplicate expenses, and optimizing operations. The merger also aimed to leverage the combined subscriber base and network assets to compete more effectively in the highly competitive Indian telecom market. Merger of Bank of Baroda, Vijaya Bank, and Dena Bank: In 2019, three public sector banks in India, Bank of Baroda, Vijaya Bank, and Dena Bank, merged to create the second-largest public sector bank in terms of assets. The merger aimed to achieve synergies in terms of cost reduction, economies of scale, improved risk management, and enhanced lending capabilities.

2. **Objectives of the Study**

    1 To evaluate the financial results of Dena Bank, Vijaya Bank, and Bank of Baroda before and after their merger.

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2. To assess how the merger of Dena Bank and Vijaya Bank has affected the Bank of Baroda's financial results and Projecting the Bank of Baroda's Profit
3. To do In-Depth Analysis of the case to find general synergies as to this merger

3 Literature Review Briefly

1. Prashanth Kumar V;Ilyas Ur Rahman (2020) The study examined the relationship between monetary policy and the share capital and banking sector. Historical data from Banks Nifty and the structured monetary policy index were taken into account in the study. The study applied statistical method vector Error Correction Model. The research developed the monetary policy index using the key RBI prices of Repo, Reverse Repo, SLR, M3 and CRR.

2. Vanitha et al. (2011) Ratio analysis, mean, standard deviation, and "t" test have all been used as analysis techniques to evaluate financial performance. According to their research, merged enterprises in India were acquired by organisations with a solid reputation and competent management. Their conclusion, drawn from a financial evaluation standpoint, is that the merging companies were taken over by organisations with reputable and competent management. As a result, it was conceivable for the combined businesses to succeed in due time. Before drawing a final conclusion, it is proposed in the paper that the analysis be conducted on a larger sample size.

3. Patel et al. (2016) evaluated the pre- and post-merger stock risk-return performance of a few banks in comparison. In this study, systemic and unsystematic risk are compared for the pre- and post-merger periods. According to the survey, banks are merging in order to achieve a variety of goals, including gaining market share, expanding their geographic reach, maximising value, developing financial synergies, and others. But occasionally, in order to achieve these goals, acquiring banks neglect to take a few crucial factors into account in target banks, which results in subpar financial and stock performance. The study makes the suggestion that researchers conduct additional research in the area of merger and acquisition with regard to stock performance assessment.

4. Madan Mohan Dutta and Suman Kumar Dawn (2012) attempted to study mergers and acquisitions (M & A) (in Indian banking industry post liberalization and critically examine the reasons for these mergers and analyze whether these mergers can be considered as successful or not. To measure the bank performance after pre merger and post merger, Researchers selected a sample of 5 bank mergers from 1994 -2004 and about 25 significant bank mergers post liberalization ignoring mergers of cooperative banks and regional rural banks. With this tried to measure and analyze pre merger and post merger financial performance of these banks and also tried to understand the major factors involved for being successful on mergers and acquisitions operations in banking industry in India.

5. Manish Phalke and Dr. Avinash Desai (2017) looked at the merger activity in the banking industry in India during the period 2006-2010 pre-merger and post-merger period. The financial performance of both State Bank of Indore and SBI with respect to acquiring private limited banks does not result in any notable changes in its liquidity position as well as on its profitability levels. But the efficiency of the banks in generating income relating to their investment in fixed assets has declined in shorter time period. In addition, the net earnings in longer time period of five year tend to increase against taking over of private limited banks by public and private sector banks in India.

4. Interpretations as In-Depth Analysis of Case

Consolidation, merger, and amalgamation are not novel concepts. After nationalisation, there were numerous mergers in the Indian banking industry. Ten banks merged with Bank of Baroda between 1958 and 2011, with Memon Bank becoming the final merger in 2011. After the merger, Bank of Baroda expanded its reach not just domestically but also worldwide, operating in 21 countries and serving 120 million customers with revenue of INR 11.07 lac crore in March 2019. A remarkable, first-of-its-kind three-way bank consolidation in India took place on April 1 when Vijaya Bank, Dena Bank, and Bank of Baroda merged. In June 2019, Bank of Baroda's revenue increased to INR 15.28 lac crore, making it the second-largest PSB in India. The merger of Bank of Baroda, Vijaya Bank, and Dena Bank in 2019 was a significant development in the Indian banking sector. Here is an overview of the merger and some potential factors for an in-depth analysis:

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1. Merger Rationale: The merger aimed to consolidate the three banks and create a stronger, more efficient entity. It aimed to achieve economies of scale, cost efficiencies, improved risk management, enhanced lending capabilities, and better customer service.

2. Financial Analysis: An in-depth analysis of the financials of the merged entity and the individual banks before the merger would be crucial. This analysis could include comparing key financial indicators such as total assets, loan portfolio, deposits, net interest income, profitability ratios, and capital adequacy ratios. It would be important to assess how the merger impacted these financial metrics and whether the synergies expected from the merger were realized.

3. Operational Integration: Assessing the operational integration is essential. This analysis could cover areas such as branch network rationalization, harmonization of policies and processes, integration of IT systems, and human resource management. Evaluating how effectively the three banks were integrated and the challenges encountered during the process would provide insights into the success of the merger. Customer Impact: Analyzing the impact on customers is crucial to understanding the success of the merger. This analysis could include measuring customer satisfaction, retention rates, and changes in the customer base. Assessing whether the merged entity was able to offer enhanced products and services to customers would be important. Employee Integration: Examining the integration of employees from the three banks would be valuable. This analysis could cover aspects such as workforce rationalization, cultural integration, employee morale, and retention rates. Understanding how well the merger addressed the concerns and expectations of employees is vital to evaluating its success.

4. Regulatory and Legal Compliance: Assessing the compliance with regulatory requirements and any legal challenges faced during the merger process would be important. Analyzing the impact of regulatory changes on the merged entity's operations and profitability would provide insights into the overall success of the merger.

5. Market Position and Competitive Landscape: Evaluating the impact of the merger on the market position of the merged entity is essential. This analysis could involve assessing market share, competitive positioning, and the ability to compete effectively with other banks in the sector. Understanding whether the merger enhanced the merged entity's ability to navigate the competitive landscape would be valuable.

   Research Design : Here some financial parameters and formulae have been used to make study effective and to achieve its goals/objectives

1. ROCE – Return on Capital Employed
2. CAR – Capital Adequacy Ratio
3. Cash Deposit Ratio
4. Credit Deposit Ratio
5. Non Performing Asset Ratio NPA
6. CASA
7. EPS Earning per Share
8. Pay Out Ratio

- To analyze the impact of the merger on the financial performance of the acquirer bank (Bank of Baroda), pre-post merger data of the above mentioned ratios have been considered, where the premerger period is 2015 to 2018 and the year just preceding the year of merger i.e. 2019 is considered as a post merger period in this study.
- The concerned data are collected from the secondary sources i.e. moneycontrol.com and Capitaline Database.
- A comparative ratio analysis has been employed to analyze the pre and post merger financial performance of the

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selected banks.

- Independent t-test at 5% level of significance is carried out to obtain whether there is any significant difference in the financial measures before and after the merger of the selected banks.
- Regression analysis has also been employed to forecast the post merger net profit of Bank of Baroda for the period of 2020 to 2025.

6. Methodology:

DATA ANALYSIS

Table 1: financial performances of dena bank, vijaya bank & bank of baroda during pre & post merger period

Ratios	Pre-merger Period (Average)			Post-merger Period (Average)
	Dena Bank (Acquired Bank)	Vijaya Bank (Acquired Bank)	Bank of Baroda (Acquirer Bank)	Bank of Baroda
Credit-Deposit Ratio	67.02	70.12	67.71	72.87
Cash- Deposit Ratio	5.8225	4.5075	3.6925	4.01
RONW	0.96	8.19	-1.7	0.92
Net Profit Margin	-9.0825	4.64	-0.665	2.05
Capital Adequacy Ratio	11	12.75	12.75	13
Net NPA Ratio	8.25	3.25	4.25	3
CASA	0	0	30.135	34.6
Basic EPS	-10.1275	5.9875	-1	4.16
Payout Ratio	0.027761	0.166847	0.081979	0
ROCE	0	0	1.535	1.78

Observation: In the pre merger period the average Credit-Deposit Ratio of three banks were more or less same but after this merger it can be observed that the Credit-Deposit Ratio of the acquirer bank i.e. Bank of Baroda has been increased slightly i.e.5.61%, which signifies that in the post-merger period the efficiency of the acquirer bank to utilize its resources optimally has been increased. Cash-deposit ratio is the minimum amount of cash balance each branches has to maintain to meet their liabilities and it is usually 0.75% of total deposit. As per the above table it can be observed that in the pre-merger period the Cash-deposit Ratio position of this trio was very high, especially in case of Dena Bank. After the merger it can be noticed that this ratio of Bank of Baroda has been increased in a very low proportion i.e. only 0.32% but on the basis of the ideal norm the in the post-merger era the cash-deposit ratio position of Bank of Baroda is still good. Though in the pre-merger period the RONW of Vijaya Bank was quiet impressive but in case of Bank of Baroda the same was negative but after the merger this negative RONW turns into positive and increased by 2.62%. In case of Capital Adequacy Ratio it can be observed that there is not a significant change between pre and post merger era. Relating to the Net NPA Ratio a positive change can be noticed as this ratio of the acquirer bank is decreased by 1.25% after the merger which signifies that in post-merger era the risk of raising bad quality loan has decreased than the pre-merger period. CASA Ratio explains the proportion of deposits of the bank comes from current and savings deposits, which is generally a cheaper source of fund. Higher the CASA Ratio better will be the operating efficiency of bank. In this case it can be observed that this ratio of acquirer bank has been increased by 4.47% after the merger. Relating to EPS of Bank of Baroda a huge positive change

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can be observed in the post-merger era though during the post-merger period the payout ratio of the acquirer bank is 0. Lastly, regarding this ROCE, a slight positive change can be observed after the merger.

Hypothesis Testing on the basis of Financial Measures
H0: There is no significant difference between pre and post merger financial performance.
H1: There is a significant difference between pre and post merger financial performance.

Table 2: CREDIT-DEPOSIT RATIO OF BANK OF BARODA
Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	67.71	3.23	3	0.047	3.2	3.18	H0 Rejected	1.61
Post-merger	1	72.87	0		0				0

Observation: As the t-statistic (3, 0.05) = 3.20 is greater than the tabulated value 3.18 so the null hypothesis is rejected here in favor of alternative hypothesis. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is a significant difference between the pre and post merger Credit-Deposit Ratio of Bank of Baroda. Even on the basis of the mean it can also be seen that after the merger of Dena Bank & Vijaya Bank with Bank of Baroda the Credit –deposit Ratio of the acquirer bank (Bank of Baroda) has been increased by 5.16% which reflects that the ability of this bank to make optimal use of available resources i.e. creation of loan assets from the deposits received has been increased slightly after the merger.

TABLE 3: CASH-DEPOSIT RATIO OF BANK OF BARODA
Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	3.69	0.02	3	65	26.67	3.18	H0 Rejected	0.012
Post-merger	1	4.01	0		0				0

Observation: As the t-statistic (3, 0.05) = 26.67 is greater than the tabulated value 3.18 so the null hypothesis is again rejected here in favor of alternative hypothesis. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is a significant difference between the pre and post merger Cash-Deposit Ratio of Bank of Baroda. On the basis of the mean it can also be noticed that there is a slight positive

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change i.e. 0.32%, in the Cash –deposit Ratio of the acquirer bank (Bank of Baroda) after this merger. But comparing to the ideal norm both in case of pre & post merger period the cash-deposit ratio of BOB is quiet impressive.

TABLE 4: RONW OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	-1.7	117	3	-68.91	0.04	3.18	H0 Accepted	58.57
Post-merger	1	0.92	0		0				0

Observation: As the t-statistic (3, 0.05) = 0.04 is less than the tabulated value 3.18 so the null hypothesis is accepted here against the alternative hypothesis. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is not a significant difference between the pre and post merger RONW of Bank of Baroda. Even on the basis of the mean it can also be seen that in the pre-merger era it was negative but after the merger it is increased to 0.92 which is not a good return at all though its turns into a so called positive figure. Therefore, it can be infer that the efficiency of the acquirer bank to generate profit from shareholders' capital is not developed much.

TABLE 5: NET PROFIT MARGIN RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	-0.66	77.6	3	-117.59	0.07	3.18	H0 Accepted	98.8
Post-merger	1	2.05	0		0				0

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	12.75	0.25	3	0.0196	2	3.18	H0 Accepted	0.125

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Post-merger	1	13	0		0				0

Observation: As the t-statistic (3, 0.05) = 0.07 is lesser than the tabulated value 3.18 so the null hypothesis is accepted here against the alternative hypothesis. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger Net Profit Margin Ratio of Bank of Baroda. Even in imitation of the mean value of both pre & post merger period it can be observed that though after this merger the net profit margin of the acquirer bank turns into a positive figure than a negative one, still this profit margin is quiet low.

TABLE 6: CAPITAL ADEQUACY RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Observation: As the t-statistic (3, 0.05) = 2 is lesser than the tabulated value 3.18 so the null hypothesis is accepted here. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger Capital Adequacy Ratio of Bank of Baroda. Even on the basis of the mean it can also be seen that after the merger of Dena Bank & Vijaya Bank with Bank of Baroda, there is a slight increase of 0.25% in the Capital Adequacy Ratio of the acquirer bank (Bank of Baroda) which reflects that there is a very slight difference in the ability of this bank to meet its financial obligations after the merger.

TABLE 7: NET NPA RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	4.25	2.25	3	0.53	-1.11	3.18	H0 Accepted	1.125
Post-merger	1	3	0		0				0

Observation: As the t-statistic (3, 0.05) = -1.11 is lesser than the tabulated value 3.18 so the null hypothesis is accepted here. Hence on the basis of independent t- test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger Net NPA Ratio of Bank of Baroda. As per the mean of both pre & post merger era it can be noticed that the Net NPA Ratio is just decreased by 1.25%, but in both of this period this ratio is pretty much higher than the zero which signifies that though after the merger this ratio is slightly decreased but there is a high risk of the raising the bad quality loan is still present like in the pre-merger era.

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TABLE 8: CASA RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	30.14	20.5	3	0.68	0.44	3.18	H0 Accepted	10.25
Post-merger	1	34.6	0		0				0

Observation: As the t-statistic (3, 0.05) = 0.44 is smaller than the tabulated value 3.18 so the null hypothesis is accepted here. Hence on the basis of independent t- test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger CASA Ratio of Bank of Baroda. But, in general, after merger also, 34.6% is much higher than ideal CASA Ratio & higher CASA ratio after the merger indicates a lower cost of funds, which signifies the better net interest margin and better operating efficiency of the bank.

TABLE 9: BASIS EPS RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	-1	313	3	-312.6	0.033	3.18	H0 Accepted	156.29
Post-merger	1	4.16	0		0				0.0

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error

Observation: As the t-statistic (3, 0.05) = 0.033 is smaller than the tabulated value 3.18 so the null hypothesis is accepted here. Hence on the basis of independent t- test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger Basic EPS Ratio of Bank of Baroda. In contrast, on the basis of mean after the merger it can be observed that the Basic EPS ratio has improved a lot to 4.16% from -1%.

TABLE 10 : PAY-OUT RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

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Pre-merger	4	1.535	0.03	3	0.0182	17.5	3.18	H0 Rejected	0.014
Post-merger	1	1.78	0		0				0

Period	N	Mean	S.D	df	C.V	t-statistic	Tabulated value	Result	Standard error
Pre-merger	4	0.082	0.01	3	9.11	-18.22	3.18	H0 Accepted	0.005
Post-merger	1	0	0		0				0.00

Observation: As the t-statistic $_{(3,\ 0.05)}$ =-18.22 is very smaller than the tabulated value 3.18 so the null hypothesis is accepted here. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is no significant difference between the pre and post merger Pay-out Ratio of Bank of Baroda. Even on the basis of the mean it can also be seen that after the merger of Dena Bank & Vijaya Bank with Bank of Baroda, there is no such change in the Pay-out Ratio of the acquirer bank (Bank of Baroda) further it become 0 after this merger.

TABLE 11: ROCE RATIO OF BANK OF BARODA

Calculation of two sample independent t-test for unequal mean, where, df=3 & level of significance= 0.05

Observation: As the t-statistic $_{(3,\ 0.05)}$ = 17.5 is much greater than the tabulated value 3.18 so the null hypothesis is rejected here in favor of alternative hypothesis. Hence on the basis of independent t-test at 5% level of significance it can be conclude that there is a significant difference between the pre and post merger ROCE Ratio of Bank of Baroda. Even on the basis of the mean it can also be seen that after the merger of Dena Bank & Vijaya Bank with Bank of Baroda the ROCE Ratio of the acquirer bank (Bank of Baroda) has been increased only by 0.25% which is very little. Therefore, on the basis of the result it can be concluded that the bank has more or less same efficient level to use its available capital optimally after the merger.

TABLE 12: FORECASTING NET PROFIT OF BANK OF BARODA ON THE BASIS OF REGRESSION ANALYSIS

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Net Profit	-2017	1297	-1088	356.9	433.52	822.96	1381	1561.3	1930	2299.64	2668.81

CHART 1

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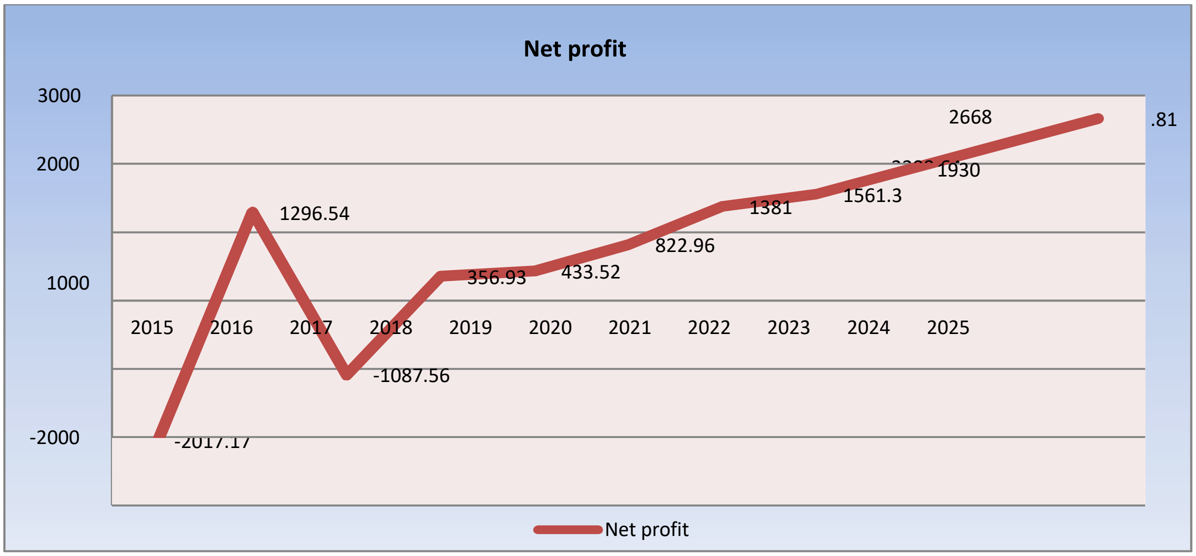

Observation: On the basis of the past 5 years (2015-2019) the net profit of the acquirer bank (Bank of Baroda) has been forecasted in accordance with the regression tend analysis. The result of the regression trend analysis forecast that though there is an upward trend in the net profit during the next 6 years of the acquirer bank though a fluctuating trend can be observed in the last 5 years. After the merger of the Dena Bank and Vijaya Bank with Bank of Baroda the net profit of that acquirer bank will gradually increase with the passage of the time.

Results and Discussion:

The combination of Dena Bank and Vijaya Bank with Bank of Baroda significantly improved that bank's standing; it is now India's third-largest bank. The financial performance of the trio in these two scenarios is expressed by a comparative ratio analysis of the pre- and post-merger era. According to this study, the performance of the acquiring bank did not significantly alter after the merger's first anniversary, with the exception of a shift in position, since most performance indicators only moved very slightly and not significantly. A considerable change can only be seen in the cases of the credit-deposit ratio, cash-deposit ratio, and basic EPS ratio. After the merger, Bank of Baroda expanded its reach not just domestically but also worldwide, operating in 21 countries and serving 120 million customers with revenue of INR 11.07 lac crore in March 2019.

Conclusion:

The paper contributes significantly towards understanding the way technological changes in banking industry happens apart from various triggers towards mergers and acquisitions in the industry.Few cases have been taken to understand the same with thorough emphasis on various modalities of financial technology and science.

A remarkable, first-of-its-kind three-way bank consolidation in India took place on April 1 when Vijaya Bank, Dena Bank, and Bank of Baroda merged. In June 2019, Bank of Baroda's revenue increased to INR 15.28 lac crore, making it the second-largest PSB in India. The merger of Bank of Baroda, Vijaya Bank, and Dena Bank in 2019 was a significant development in the Indian banking sector.

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