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Is Bigger Always Better? Evaluating the Financial Performance of Punjab National Bank in the Post-Merger Era

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ABSTRACT:
This paper portrays the financial performance of Punjab National Bank (PNB) after merger process, including the relevant indicators. PNB experienced a significant and strategic transformation of its operation process structure and positioning after the merger. The paper performs a quantitative analysis with assistance of financial metrics and performance indicators to assess the resilience and adaptability of the bank by evaluating its performance. The report encompasses profitability, asset quality, liquidity, and efficiency ratios to obtain a comprehensive view of PNB's financial health after the merger. This study provides evidence on the effectiveness of mergers and their impact by examining and measuring the outcome of the mergers on the financial performance of banks. It particularly studies the transformation of PNB in the merger aftermath pointing out how a merger affects the banking sector dynamics.
JEL Classifications: G21, G23, G29

Keywords: Punjab National Bank**,** Financial Metrics, Indian banking sector and Merger & Acquisition.

1. INTRODUCTION:

Within India's ever-changing financial environment, the operational success of public sector banks (PSBs) serves as a pivotal indicator, signalling the overall economic well-being and steadfastness of the country **Ahmed and Shareef (2020).** The ever-changing nature of banking has made mergers and acquisitions essential tools for banks to grow, consolidate their market share, and adjust to new conditions. Mergers are the most common method of consolidation in the banking sector. **(Devarajappa, 2012).** Punjab National Bank (PNB), a venerable institution with a rich history and extensive reach within India's financial sector, embarked on a significant merger, ushering in a new era for the bank and its stakeholders. Punjab National Bank (PNB) combined forces with Oriental Bank of Commerce (OBC) and United Bank of India (UBI) to establish the second-largest Public Sector Bank (PSB) in India. This merger was intended to fortify PNB's capital foundation, broaden its business footprint, and enhance operational effectiveness. This paper seeks to delve into the post-merger financial performance of Punjab National Bank, aiming to quantify success through a comprehensive evaluation of various metrics and indicators.

In the dynamic banking merge environment, the post-merger stage of PNB becomes an important point where strategic pursuits and ambitious synergies are being attempted. Resource integration, system convergence, and synergy of talent provide groundwork for transformative outcomes that generate both opportunities and threats. Despite the excitement of integration, the financial consequences become the primary focus of evaluation. The merger's success depends on the tangible benefits it brings, including the improved profitability, liquidity, and market positioning. Critical examination of the financial indicators reveals the success of the merger process in capturing synergies plus sustaining value in an evolving rivalry in banking. This assessment encompasses the evaluation of a multitude of aspects of financial performance, including operational effectiveness, risk management capabilities against industry-wide standards and pre-merger baseline targets. Through the comprehensive quantification of these indicators, the merger results are better understood by the stakeholders and they can thus chart the course for their future growth and resilience. Therefore, the post-merger phase determines the essence of Punjab National Bank and its role in the emerging banking system.

With Punjab National Bank merger moving out from the initial stage of integration, the interested stakeholders wish to know the view of management on financial health, operational efficiency, risk management capability and strategic alignment to market trends. The successful post-merge should be monitored utilizing KPIs. The results should be compared with the pre-merger baselines and industry standards. Financial health indicators that comprise profitability, liquidity and operational efficiency metrics offer information with a view that the operations are sustainable. Furthermore, testing a company’s risk management ability through capital adequacy ratios and compliance measures helps preserve same. Market trends are assessed through a strategic alignment driven by market share and innovation initiatives. This extensive assessment provides the stakeholders with a clear vision of the merged entity performance and thus they should make choices suitably in the bank improving unpredictable world.

This study endeavours to unravel the complexities of post-merger financial performance evaluation, offering a structured framework to analyse Punjab National Bank's trajectory in the aftermath of amalgamation. By dissecting various facets of financial performance, including profitability, liquidity, asset quality, and market positioning, we aim to paint a holistic picture of the bank's standing in the post-merger landscape.
In doing so, we endeavour to provide actionable insights for decision-makers, investors, regulators, and other stakeholders vested in Punjab National Bank's journey post-merger.

2. LITERATURE REVIEW:

1. **Vulanovic (2017)** discovered that mergers negatively affect the financial performance of industrial firms, as evidenced by the unfavourable outcomes reported by the merging entities.
2. In a study conducted by **Ansari, M. A., & Mustafa, M. (2018)** It is evident from the examination of crucial financial indicators before and after the merger that there was minimal impact on the company's operations. Prior to the merger and acquisition, companies demonstrated more efficient operations, with a higher return for shareholders.
3. **Mubeen, S., & Nagaraju, Y. (2018)** states that the merged company achieves heightened cost efficiency by utilizing fewer labour, resources, management efforts, and finances to attain optimal production levels post-merger.
4. **Brahma (2018)** conducted a comparative evaluation of SBI and ICICI Bank employing the CAMEL approach. The findings indicated profitable operations for both banks in terms of profitability and management efficiency, with ICICI demonstrating superior performance relative to SBI.
5. As per the research conducted by **Thomas, J. O. S. Y., George, D. M., & Jain, D. P. (2019)**, there is evidence of a downward trend in financial performance post-acquisition when compared to the pre-acquisition phase. The outcomes of this investigation could provide valuable insights for various stakeholders, including investors, managers, debtors, and creditors, both within and outside the organization.
6. **Qamar, F., & Ud Din, S. M. M. (2021)** conducted a study on the impact of State Bank of India Consolidation on Performance and Policy Implications. They compared pre- and post-merger performance of SBI across 31 indicators grouped into five categories. The merger significantly influenced size indicators like investment growth, income per employee, and business per employee, while many other indicators showed no statistically significant change.
7. As stated by **Aggarwal and Garg (2022)**, a merger represents a strategic manoeuvre within corporate restructuring, with extensive ramifications on organizational operations. Achieving the intended outcomes from such integration necessitates a considerable investment of time.
8. **Mehta, M., & Gupta, S. (2022)** suggested that the merger of Bank of Baroda with Dena Bank & Vijaya Bank improved capital management. They proposed that necessary adjustments in governance and management were undertaken alongside the merger. Additionally, the merger resulted in an expansion of service areas, ultimately benefiting Bank of Baroda.
9. The motives behind mergers and acquisitions (M&A), known as MAM, lead to an augmentation in EVA, MVA, and CVA. In the Ghanaian banking sector, acquisitions are primarily driven by five key factors: bolstering market supremacy, achieving financial synergy, realizing synergy gains such as cost reductions, asserting control to replace inefficient management, as outlined by **Apreku-Djan et al. (2022).**
10. **Gupta, I., et al. (2023)** concluded that the consolidation of two resources within the firm is expected to generate synergy during the post-merger and acquisition (M&A) phase.
11. **Vinocur, E., Kiymaz, H., & Loughry, M. L. (2023)** stated that the Enterprises engage in mergers and acquisitions (M&A) to execute their expansion strategies, acquire fresh expertise, or gain a competitive advantage by consolidating markets, diversifying, or achieving cost-effective synergies

3. OBJECTIVES OF THE STUDY:

This research paper aims to analyse the impact of the Punjab National Bank (PNB) merger on its performance. Paired-samples t-test will be utilized to assess whether the merger resulted in a statistically significant change in key performance metrics like profitability and efficiency. Finally, based on our findings, we aim to provide recommendations for future mergers in the banking sector, suggesting best practices for pre-merger evaluation, integration strategies, and ultimately, increasing the chances of a successful merger.

4. RESEARCH METHODOLOGY:

4.1 Research Design:

- Type of Study: This study will be a longitudinal observational study, analysing data collected over time.
- Study Design: The study will utilize a pre-test post-test design, comparing key financial data before and after the merger.
- Sampling: The sample will consist of all available data points for the bank’s performance for the pre-merger and post-merger periods.

- Data Collection: Financial data regarding the selected metrics will be collected from the annual reports of the banks for the specified time periods.
- Data Analysis: Paired Samples t-test will be conducted to compare the performance before and after the merger.

To test the hypothesis, six years of data are utilized, comprising three years preceding the merger and three years after the merger, spanning fiscal years 2016-2017, 2017-18, 2018-19, 2020-21, 2021-22 and 2022-2023. The fiscal year 2019-20 is excluded from this study due to merger-related costs, which may show skewness in results.
To assess the impact of the merger on PNB, we employed weighted averages to consolidate pre-merger data for the three banks i.e., Punjab National Bank, United Bank of India, Oriental Bank of Commerce into a single entity representing the pre-merger combined bank. Total assets during the merger process were used as the weighting metric, reflecting the relative size and financial resources of each bank. Weights were calculated by dividing each bank's total assets by the combined total assets. Subsequently, these weights were applied to calculate weighted averages for the key financial ratios across the three pre-merger years 2016-2017, 2017-2018 and 2018-2019.
Weight Calculation:

The weights for each bank were calculated by dividing their total assets by the sum of the total assets for all three banks. Here is the formula used:
Weight of Bank = Bank's Total Assets / Total Assets Sum (of all banks)
Using the Total Asset figures which was closest to the merger year i.e., 2019
PNB: 774,949 OBC: 271,909 UBI: 151,529, we obtained the following weights:
Weight of PNB = 774,949 / (774,949 + 271,909 + 151,529) = **0.6467**
Weight of OBC = 271,909 / (774,949 + 271,909 + 151,529) = **0.2269**
Weight of UBI = 151,529 / (774,949 + 271,909 + 151,529) = **0.1264**

These weights were then used to calculate weighted averages for key financial ratios (e.g., Operating Profit, ROA, GROSS NPA, CAR) across the three pre-merger years.
A comparison is made between post-merger and pre-merger data to derive meaningful conclusions regarding the merger's impact on the bank's financial performance, utilizing indicators such as operating profit, net profit, non-performing assets, capital adequacy ratio, return on assets, and earnings per employee.

5. HYPOTHESIS OF THE STUDY:
Ho: There is no significant difference in the mean values of the selected metrics (Operating Profit, Net Profit, Gross NPA, Business per Employee, CAR, and ROA) for the bank before and after the merger.
Ha: There is a significant difference in the mean values of the selected metrics (Operating Profit, Net Profit, Gross NPA, Business per Employee, CAR, and ROA) for the bank before and after the merger.

6. DESCRIPTIVE ANALYSIS AND INTEPRETATION:

Table 1: Financial Performance of PNB, UBI and OBC respectively for the year 2016-17

RATIO/YEAR	2016-2017			WEIGHTED TOTAL FOR THREE BANKS (VALUE * WEIGHT)
	PNB	UBI	OBC	
Operating Profit (in Cr.)	14565	1553	4170	10298.649
Net Profit (in Cr.)	1325	220	-1094	768.5139
ROA%	0.19	0.21	-0.46	0.112378
Gross NPA%	12.53	15.53	13.73	13.36238

Business Per Employee (in Cr.)	14.17	13.04	17.9	14.385075
CAR%	11.66	11.14	11.64	11.539484

Table 2: Financial Performance of PNB, UBI and OBC respectively for the year 2017-18

RATIO/YEAR	**2017-2018**			**WEIGHTED TOTAL FOR THREE BANKS (VALUE*WEIGHT)**
	PNB	**UBI**	**OBC**	
Operating Profit (in Cr.)	10294	1024	3703	7357.5346
Net Profit (in Cr.)	-12282	-1454	-5872	-9014.903
ROA%	-1.6	-1.04	-2.31	-1.56268
Gross NPA%	18.38	24.1	17.63	19.583068
Business Per Employee (in Cr.)	14.73	13.22	16.18	14.570661
CAR%	9.2	12.62	10.5	10.140318

Table 3: Financial Performance of PNB, UBI and OBC respectively for the year 2018-19

RATIO/YEAR	**2018-2019**			**WEIGHTED TOTAL FOR THREE BANKS (VALUE*WEIGHT)**
	PNB	**UBI**	**OBC**	
Operating Profit (in Cr.)	12995	1412	3754	9198.7549
Net Profit (in Cr.)	-9975	-2316	55	-6969.381
ROA%	-1.25	-1.6	0.02	-1.168887
Gross NPA%	15.5	16.48	12.66	15.363386
Business Per Employee (in Cr.)	16.8	14.96	18.6	16.610024
CAR%	9.73	13	12.73	10.851163

From the above tables 1,2 and 3, we can consolidate the financial data and treat it as a single identity for the purpose of study. Hence, the consolidated performance of is shown as below.

Table 4: Consolidated Financial Performance of PNB for three years pre-merger period.

RATIO/YEAR	2016-2017	2017-2018	2018-2019	MEAN OF PRE-MERGER
	PNB*	PNB*	PNB*	
Operating Profit (in Cr.)	10298.649	7357.5346	9198.7549	8951.64617
Net Profit (in Cr.)	768.5139	-9014.903	-6969.381	-5071.92337
ROA%	0.112378	-1.56268	-1.168887	-0.873063
Gross NPA%	13.36238	19.583068	15.363386	16.1029447
Business Per Employee (in Cr.)	14.385075	14.570661	16.610024	15.1885867
CAR%	11.539484	10.140318	10.851163	10.843655

***PNB =THREE BANKS (PNB+UBI+OBC) AS A COMBINED ENTITY THAT TOOK PART IN THE MERGER.**

Table 5: Financial Performance of PNB for three years in the post-merger period.

RATIO/YEAR	2020-2021	2021-2022	2022-2023	MEAN OF POST-MERGER
	PNB	PNB	PNB	
Operating Profit (in Cr.)	22159	20762	22529	21817
Net Profit (in Cr.)	2022	3457	2507	2662
ROA%	0.15	0.26	0.18	0.20
Gross NPA%	14.12	11.78	8.74	11.55
Business Per Employee (in Cr.)	18.85	19.41	21.64	19.97
CAR%	14.32	14.50	15.50	14.77

Table 6: Paired Sample T Test Analysis on the pre-merger and post-merger data.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	OPERATING PROFIT – YEAR	15383.65642	7132.71532	2911.91883	7898.33076	22868.98208	5.283	5	.003
Pair 2	NET PROFIT - YEAR	-1205.46168	5366.95346	2191.04957	-6837.73392	4426.81055	-.550	5	.606
Pair 3	ROA % - YEAR	-.83820	.55641	.22715	-1.42211	-.25429	-3.690	5	.014
Pair 4	GROSS NPA YEAR	13.32481	4.02570	1.64348	9.10010	17.54951	8.108	5	.000
Pair 5	BUSINESS PER EMPLOYEE – YEAR	17.07763	2.40065	.98006	14.55830	19.59696	17.425	5	.000
Pair 6	CAR - YEAR	12.30849	1.71241	.69909	10.51143	14.10556	17.607	5	.000

7. FINDINGS:

- Pair 1: Operating Profit - Year
  Interpretation: The mean difference in operating profit between the years is statistically significant (p = 0.003).
  Conclusion: There is a significant difference in operating profit between the years, indicating a change in the financial performance of the company over time.
- Pair 2: Net Profit - Year
  Interpretation: The mean difference in net profit between the years is not statistically significant (p = 0.606).
  Conclusion: There is no significant difference in net profit between the years, suggesting that the merger did not have a significant impact on net profit.
- Pair 3: Return on Assets (%) - Year
  Interpretation: The mean difference in return on assets (%) between the years is statistically significant (p = 0.014).
  Conclusion: There is a significant difference in return on assets (%) between the years, indicating a change in the efficiency of asset utilization over time.
- Pair 4: Gross Non-Performing Assets - Year
  Interpretation: The mean difference in gross non-performing assets between the years is statistically significant (p < 0.001).
  Conclusion: There is a significant difference in gross non-performing assets between the years, indicating a change in the quality of the company's loan portfolio over time.
- Pair 5: Business Per Employee - Year
  Interpretation: The mean difference in business per employee between the years is statistically significant (p < 0.001).
  Conclusion: There is a significant difference in business per employee between the years, suggesting a change in productivity or business efficiency over time.
- Pair 6: Capital Adequacy Ratio - Year
  Interpretation: The mean difference in capital adequacy ratio between the years is statistically significant (p < 0.001).
  Conclusion: There is a significant difference in capital adequacy ratio between the years, indicating a change in the financial health and risk management of the company over time.
- Overall Conclusion: The paired samples test results suggest that the merger had a mixed impact on various financial metrics. While there were significant improvements in operating profit, return on assets (%), business per employee, and capital adequacy ratio post-merger. There were no significant changes observed in net profit. Additionally, there were significant increase in gross non-performing assets, indicating a potential deterioration in loan quality.

8. SUGGESTIONS:

1. Focus on Operational Efficiency: Given the significant increase in operating profit post-merger, the anchor banks should continue to focus on improving operational efficiency. This could involve streamlining processes, reducing overhead costs, and optimizing resource allocation.
2. Enhance Asset Quality Management: The notable increase in gross non-performing assets post-merger highlights the importance of enhancing asset quality management. The anchor banks should strengthen credit risk assessment processes, closely monitor loan portfolios, and implement proactive measures to mitigate credit risks.
3. Maximize Employee Productivity: The significant improvement in business per employee post-merger suggests that the anchor banks have increased their productivity. To sustain this momentum, they should invest in employee training and development programs, promote a culture of innovation and collaboration, and leverage technology to automate routine tasks.
4. Continuous Monitoring and Evaluation: Lastly, the anchor banks should establish mechanisms for continuous monitoring and evaluation of their performance post-merger. Regularly assessing key performance indicators, conducting in-depth analyses, and soliciting feedback from stakeholders will enable them to identify areas for improvement and make informed decisions to drive sustainable growth and success.
5. Strategic Planning and Risk Management: The anchor banks should develop robust strategic plans aligned with their long-term goals, conduct comprehensive risk assessments, and implement effective risk mitigation strategies to navigate uncertainties in the financial landscape.

9. LIMITATIONS:

The study examining the financial performance of the anchor banks before and after the merger provides valuable insights, yet it is constrained by several limitations. These include potential data inaccuracies or omissions, a short-term analysis window that may not fully capture the merger's effects, and the inability to account for external factors like economic changes or industry dynamics. Moreover, the reliance on statistical tests assumes certain conditions that may not hold true, and the lack of qualitative data overlooks important contextual factors. While the findings offer important considerations for the anchor banks, acknowledging these limitations is essential for a comprehensive understanding of the merger's impact and for guiding future research endeavours in the banking sector.

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