International Journal of Humanities and Social Science Invention (IJHSSI)
ISSN (Online): 2319 – 7722, ISSN (Print): 2319 – 7714
www.ijhssi.org ||Volume 14 Issue 8 || August 2025 || PP. 144-152

Asset Quality and Operational Performance of Indian Public Sector Banks- Pre- and Post-Merger Analysis

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Abstract
This paper examines the impact of recent mega mergers among India's public sector banks on asset quality and operational efficiency, employing descriptive statistics over five-year pre- and post-merger periods for five major Indain public sector banks By analysing change in Gross and Net NPAs alongside changes in branch networks and workforce size, the study uncovers varied outcomes: while several banks achieved notable improvements in asset quality and operational metrics, others continued to grapple with integration hurdles and legacy-driven challenges. The results underscore that merger outcomes are highly bank-specific, shaped by historical conditions and strategic adaptability, and emphasise the need for nuanced, institution-tailored approaches by policymakers and management when pursuing sustainable consolidation and enhanced financial robustness. The findings also highlight the complex, bank-specific impact of mergers in the Indian context and suggest that structural reform outcomes depend greatly on the interplay of legacy factors and operational strategy

Key words: *Merger, Asset Quality, Operational Metrics, BoB, CB, IB,UBI, PNB*

Date of Submission: 10-08-2025 Date of Acceptance: 23-08-2025

I. Introduction

The Indian banking sector has witnessed a transformative wave of consolidation through a series of mega mergers among public sector banks (PSBs), driven by the government's objective to create stronger, to improve efficiency, more competitive, and resilient financial institutions. In the year 2019 and 2020, five major bank mergers were implemented, including the amalgamation of Vijaya Bank and Dena Bank with Bank of Baroda; Syndicate Bank with Canara Bank; Andhra and Corporation Bank with Union Bank of India; Oriental Bank of Commerce and United Bank of India with Punjab National Bank; and Allahabad Bank with Indian Bank. These mergers were aimed at consolidating resources, strengthening balance sheets, and enhancing operational efficiency to make PSBs more resilient in a rapidly evolving financial environment These structural changes were envisioned to bring about economies of scale, better capital allocation, improved risk management, and enhanced customer service delivery.

II. Literature Review

The analysis of mergers and acquisitions (M&A) in the banking sector has been extensively studied, with a focus on their impact on financial performance, efficiency, and asset quality.

Altunbas and Marqués (2008) analyzed European bank mergers and emphasized that performance improvements were more likely when there was strategic compatibility, especially in cross-border mergers. Integration-related issues were often cited as barriers to realizing post-merger synergies.

In India, large-scale mergers in public sector banks began with the consolidation of State Bank of India with its associates in 2017, followed by the mega mergers announced in 2019. Pillai and Sathye (2011) found limited improvements in performance post-merger, especially in the case of public sector banks.

Bansal (2020) evaluated the SBI merger and noted moderate improvements in profitability but highlighted continued challenges with asset quality. Mishra and Chitrao (2021), in their study of Punjab National Bank, observed that operational aspects like branch efficiency improved more noticeably than profitability metrics.

Sinha and Sharma (2016) used descriptive statistics—mean, standard deviation, and coefficient of variation—to assess the stability and volatility in financial ratios pre- and post-merger. They concluded that certain performance indicators showed reduced variability post-merger.

Kumar and Sahu (2020) explored asset quality metrics like GNPA and NNPA and found only marginal improvement post-merger. They noted that high provisioning and legacy NPAs continued to drag down post-merger performance.

Kaur and Kaur (2021) discussed operational integration and reported better staff utilization and rationalization of branch networks, especially in the cases of Union Bank and Canara Bank mergers.

Sarkar (2020), examined the movement of Gross NPA, Net NPA and Capital Adequacy ratios of SBI using data from 2013 to 2017. He also statistically tested, using one-way ANOVA and Post Hoc analysis, whether there exists a significant difference between the average levels of Gross NPA and Net NPA. The study found that irrespective of the size of a bank, it remains exposed to NPA-related risks like any other bank, thereby highlighting the need for stronger credit policies and more robust recovery mechanisms.

2.1 Research Gap

Although numerous studies have explored bank mergers in India and globally, a significant research gap remains in the comprehensive and comparative analysis of multiple mergers within a unified framework. Most existing literature tends to focus on individual bank mergers or utilize limited timeframes and variables. This study addresses these gaps by conducting a 10-year evaluation of all five mega mergers in the Indian public sector banking sector, covering both the five-year pre-merger and five-year post-merger periods."

The current studyuses the descriptive statistical analysis (using mean, standard deviation, and coefficient of variation)to examine changes in, asset quality, and operational metrics before and after the mergers. By incorporating a wide spectrum of metrics across multiple institutions, the research offers a more holistic and data-driven understanding of the merger outcomes in India's banking sector. In addition, the study will also contributes a more nuanced and representative understanding of the long-term impacts of mega mergers within the banking sector, thereby making a distinctive contribution to the existing literature.

2.2 Research Methodology

The analysis is based on secondary data collected from official sources including annual reports of banks, Reserve Bank of India (RBI) publications, Money control, and financial databases, covering a ten-year period from 2016 to 2025. The research is divided into pre-merger (2016–2020) and post-merger (2021–2025) phases. The research methodology for this study involved a comprehensive analysis of five major mega merger banks by examining the, two asset quality indicators - Gross Non-Performing Assets (GNPA) & Net Non-Performing Assets (NNPA) and operational metrics namely Number of branches and employees.

The study used the descriptive statistical analysis of each ratio, asset quality and operational metrics will measure to provide insights into the financial health and stability of the selected banks both before and after their respective mergers This methodology ensured a robust and data-driven evaluation of the impact of mega mergers on bank performance, blending quantitative analysis with comparative insights across the merged banking institutions.

The five merged entities selected for the study are:

1. Canara Bank, merged with Syndicate Bank
2. Indian Bank, merged with Allahabad Bank
3. Union Bank of India, merged with Andhra Bank and Corporation Bank
4. Punjab National Bank, merged with Oriental Bank of Commerce and United Bank of India
5. Bank of Baroda, merged with Dena Bank and Vijaya Bank

These banks were selected because they represent the largest and most significant mergers initiated by the Government of India in the recent wave of public sector banking consolidation.

III. Objectives

1. To evaluate the asset quality and operational metrics performance of five major Indian banks before and after their respective mergers.
2. To analyse the variability and consistency in asset quality and operational indicators using descriptive statistics

IV. Analysis and Interpretation

Asset quality and operational metrics are fundamental indicators of a bank's financial health, risk management effectiveness, and overall operational efficiency. In the context of large-scale mergers among Indian public sector banks, these parameters gain added significance, as the integration process can profoundly influence both credit risk profiles and the structure of branch and workforce networks. Asset quality, typically assessed through Gross NPA (Non-Performing Assets) and Net NPA ratios, provides insight into the proportion of stressed loans and a bank's provisioning adequacy—critical for evaluating post-merger risk stability and credit discipline.

Operational metrics, such as the number of branches and employees, reflect the scale and reach of banking services as well as organizational agility in optimizing resources. Following a merger, changes in these figures may indicate branch rationalization, workforce optimization, or shifts in strategic priorities as the combined entity seeks greater efficiency and removes redundancies.

4.1 Asset Quality

This section examines the changes in asset quality and operational metrics of India's five mega-merged public sector banks across both pre- and post-merger periods. By employing descriptive statistics - including mean, standard deviation, and coefficient of variation—the analysis aims to explain not only the direction and magnitude of these changes but also their variability and operational consistency.

Tabel 01 - Pre and Post merger asset quality of Canara Bank

Asset Quality	SB+ CB			CB		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Gross NPA (%)	10.11	1.53	15.09	5.90	2.54	43.08
Net NPA (%)	5.82	0.56	9.65	2.03	1.23	60.34

Note - SB -Syndicate Bank, CB -Canara Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

The Gross Non-Performing Assets (GNPA) ratio saw a significant decline from a pre-merger mean of 10.11% to a post-merger mean of 5.90%, indicating an overall improvement in the asset quality of the consolidated Canara Bank. However, the coefficient of variation (CV) increased from 15.09% pre-merger to 43.08% post-merger, reflecting greater year-to-year variability in GNPA levels after the merger. This suggests while the average level of stressed assets has decreased, there is more fluctuation around this average in the post-merger period.

Similarly, the Net Non-Performing Assets (NNPA) ratio reduced substantially from a pre-merger mean of 5.82% to 2.03% post-merger, pointing to better net asset quality and enhanced recovery or provisioning efforts in the merged entity. The CV for NNPA increased from 9.65% to 60.34% post-merger, indicating higher relative variability over time despite the overall decline in NNPA levels.

Post-merger, Canara Bank exhibits a clear improvement in asset quality with significantly lower average GNPA and NNPA ratios compared to the combined pre-merger figures of Syndicate Bank and Canara Bank. Despite these positive trends, increased volatility in NPA ratios suggests that while the bank is reducing stressed assets effectively, it is also experiencing variability likely linked to merger integration challenges and evolving credit portfolios. Overall, the merger appears to have strengthened asset quality but indicates the need for continued focus on consistent credit risk management to stabilize NPA levels further.

Tabel 02 - Pre and Post merger asset quality of – Indian Bank

Asset Quality	ALB+IN			IN		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Gross NPA (%)	11.37	2.25	19.77	6.20	2.85	45.97
Net NPA (%)	5.49	0.91	16.50	1.43	1.35	94.26

Note - ALB =Allahabad Bank, IN – Indian Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

The pre-merger average Gross NPA stood at 11.37%, with a standard deviation of 2.25 and a coefficient of variation (CV) of 19.77%, indicating moderately high non-performing assets with some volatility. After the merger, the mean Gross NPA dropped significantly to 6.20%, reflecting improved asset quality. However, the standard deviation increased to 2.85, and the CV rose sharply to 45.97%, suggesting greater inconsistency in NPA levels over the post-merger period despite overall improvement.

In the Pre-merger, the mean Net NPA was 5.49%, with a SD of 0.91 and a CV of 16.50%, denoting a relatively stable level of net impaired assets. Post-merger, the Net NPA dropped substantially to 1.43%, indicating stronger recovery and provisioning efforts. Yet, the SD rose to 1.35 and the CV spiked to 94.26%, revealing significant year-to-year variation, possibly due to differences in provisioning norms, recovery efforts, or asset reclassification during integration.

The asset quality of Indian Bank improved markedly post-merger, as evidenced by the decline in both Gross and Net NPA means, showing stronger credit discipline and recovery mechanisms. However, the rise in CV for both ratios signals increased variability, highlighting transitional challenges in aligning risk practices and portfolio quality between the merged entities.

Tabel 03 - Pre and Post merger asset quality of – Union Bank of India

Asset Quality	AB+CRB+UBI			UBI		
	Pre-Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Gross NPA (%)	13.89	3.43	24.68	8.18	4.33	52.92
Net NPA (%)	6.90	0.95	13.81	2.33	1.74	74.41

Note- AB -Andhra Bank, CRB= Corporation Bank , UBI -Union Bank of India
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

Prior to the merger, the average Gross NPA was 13.89%, reflecting a high level of stressed assets among the merging entities. The standard deviation was 3.43, and the coefficient of variation (CV) stood at 24.68%, indicating moderate inconsistency. Post-merger, the mean Gross NPA improved significantly to 8.18%, which reflects enhanced asset quality, likely driven by consolidation efforts and better risk management. However, the standard deviation increased to 4.33, and CV jumped to 52.92%, pointing to greater fluctuations in Gross NPAs during the post-merger period.

The pre-merger mean Net NPA was 6.90%, with a SD of 0.95 and CV of 13.81%, suggesting relatively stable but elevated levels of net non-performing assets. Post-merger, Net NPA reduced sharply to 2.33%, indicating stronger provisioning and recovery measures. Nonetheless, the SD rose to 1.74 and the CV surged to 74.41%, indicating significant variability and inconsistency in maintaining the improved asset quality.

The merger into Union Bank of India brought about a notable reduction in both Gross and Net NPA levels, reflecting positive strides in credit quality, provisioning, and recovery post-merger. However, the sharp rise in CV for both indicators highlights challenges in maintaining consistent performance across the merged entity. These fluctuations suggest transitional inefficiencies, differences in risk profiles of absorbed banks, and integration-related volatility. It emphasizes the need for stronger post-merger governance, harmonized credit assessment practices, and steady monitoring to ensure long-term asset quality stability.

Tabel 04 - Pre and Post merger asset quality of – Punjab national bank

Asset Quality	OBC+UnBI+PNB			PNB		
	Pre-Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Gross NPA (%)	15.84	3.12	19.73	8.88	4.19	47.15
Net NPA (%)	9.16	1.97	21.47	2.88	2.38	82.66

Note OBC- Oriental Bank of Commerce UnBi -United Bank of India and PNB-Punjab National Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

Before the merger, the combined banks had a high average Gross NPA of 15.84%, indicating significant asset quality issues. The standard deviation (SD) was 3.12, and the coefficient of variation (CV) stood at 19.73%, pointing to moderately consistent but high stress levels. After the merger, the Gross NPA dropped to 8.88%, showing a meaningful improvement in stressed asset management. However, the SD rose to 4.19, and the CV increased to 47.15%, reflecting greater volatility and inconsistency in Gross NPA levels during the post-merger phase.

Pre-merger, the Net NPA averaged 9.16%, with a SD of 1.97 and CV of 21.47%, suggesting persistently high but stable bad asset levels. Post-merger, Net NPA improved significantly to 2.88%, indicating enhanced provisioning and recovery efforts. However, the SD increased to 2.38, and the CV rose sharply to 82.66%, revealing considerable variation in Net NPA levels post-merger, possibly due to differences in legacy loan portfolios and recovery dynamics.

The merger into Punjab National Bank led to a substantial decline in both Gross and Net NPAs, signaling an improvement in asset quality management. However, the sharp increase in CV for both metrics post-merger suggests that while averages improved, the results were less consistent over time. This variation may be attributed to integration challenges, differing asset profiles across merged banks, and transitional operational gaps.

Tabel 05 - Pre and Post merger asset quality of – Bank of Baroda

Asset Quality	VB+ DB+BoB			BoB		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Gross NPA (%)	8.72	4.59	52.68	5.66	3.06	53.96
Net NPA (%)	5.05	2.33	46.05	1.68	1.18	69.99

Note DB - Dena Bank, VB-Vijaya Bank and Bo- Bank of Baroda | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

In the pre-merger the average Gross NPA stood at 8.72%, with a high standard deviation (SD) of 4.59 and coefficient of variation (CV) of 52.68%, reflecting significant variability in asset quality across the merging banks. Post-merger, the Gross NPA improved to 5.66%, indicating progress in managing non-performing assets. However, the SD remained high at 3.06, and the CV slightly increased to 53.96%, showing that while the overall Gross NPA declined, inconsistency in performance still persisted.

The Net NPA prior to the merger was 5.05%, with a SD of 2.33 and CV of 46.05%, again indicating high dispersion among the banks' net bad loans. Post-merger, there was a marked improvement in Net NPA, which declined to 1.68%, suggesting stronger provisioning and recovery. Yet, the CV rose significantly to 69.99%, pointing to increased instability in net asset quality performance, possibly due to uneven resolution of bad assets post-merger.

After the merger, Bank of Baroda showed clear improvement in both Gross and Net NPA levels, indicating better handling of bad loans. However, the high variation in results suggests that asset quality is still not consistent across all branches. To fix this, the bank needs to apply the same risk rules everywhere and improve internal checks to keep asset quality strong over time.

The analysis of asset quality after the mergers of five major public sector banks shows a clear and steady improvement. Gross NPAs dropped significantly across all banks, moving from high double-digit levels to much lower single-digit values. For example, PNB reduced its GNPA from 15.84% to 8.88%, and Indian Bank from 11.37% to 6.20%, showing better loan recovery and credit control. Net NPAs also came down sharply—for instance, Indian Bank improved from 5.49% to 1.43% and Canara Bank from 5.82% to 2.03%—thanks to stronger provisioning and risk management. However, while average asset quality improved, the Coefficient of Variation (CV) increased in most banks, especially for Net NPAs. This means there was more fluctuation or inconsistency over time, possibly due to different levels of recovery performance across branches or business units.

4.2 Operational Metrics

After examining asset quality, the next focus of this study is on operational metrics to understand the structural impact of the five major public sector bank mergers. Operational efficiency, especially in terms of branch network and employee strength, plays a key role in measuring the success of these mergers. By using descriptive statistics like mean, standard deviation, and coefficient of variation, this analysis explores whether the mergers have resulted in optimized manpower, rationalized branch presence, or expanded outreach. The findings aim to show if the expected synergies have translated into real, measurable improvements in operational performance.

Branches and Employess	SB+ CB			CB		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Number of Branches	10070	363.85	3.61	9861	321.86	3.26
Number of Employees	89913	2225.44	2.48	84801	2888.61	3.41

Tabel 06 - Pre and Post merger operational metrics of Canara Bank
Note - SB -Syndicate Bank, CB -Canara Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

For the Number of Branches, the pre-merger average stood at 10,070, with a standard deviation of 363.85 and CV of 3.61, indicating stable branch operations across the years. Post-merger, the average slightly declined to 9,861, and both the standard deviation (321.86) and CV (3.26) also reduced, reflecting a marginal consolidation in branch presence and more consistent operations in the post-merger phase.

Regarding the Number of Employees, the pre-merger mean was 89,913, with a relatively low SD of 2,225.44 and CV of 2.48, signifying a stable workforce size. However, after the merger, the employee strength decreased to 84,801, while the SD increased to 2,888.61 and the CV rose to 3.41. This suggests greater fluctuations in employee count post-merger, possibly due to staff rationalization, redeployment, or retirement schemes implemented during integration.

The operational metrics indicate a moderate decline in both branch and employee count post-merger, which is typical in large-scale consolidations where resource optimization is a goal. While branch consistency improved slightly (lower CV), the employee variability increased, suggesting transitional workforce adjustments. Overall, the merger reflects efforts toward streamlining operations and improving cost efficiencies, although managing workforce stability remains a key challenge during post-merger integration.

Tabel 07 - Pre and Post merger operational metrics of – Indian Bank

Branches and Employees	ALB+IN			IN		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Number of Branches	6007	156.37	2.60	5857	105.62	1.80
Number of Employees	43584	1189.70	2.73	40507	722.01	1.78

Note - ALB =Allahabad Bank, IN – Indian Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

Before the merger, the combined entity (Allahabad Bank + Indian Bank) had an average of 6007 branches with a standard deviation (SD) of 156.37 and a coefficient of variation (CV) of 2.60%, indicating relatively stable branch numbers. After the merger, Indian Bank maintained an average of 5857 branches, with a slightly lower SD of 105.62 and a reduced CV of 1.80%, reflecting more consistency and stability in branch operations post-merger.

The pre-merger average employee strength was 43,584, with a SD of 1189.70 and a CV of 2.73%, indicating a controlled variation. Post-merger, Indian Bank reported a slightly reduced employee count averaging 40,507, with a SD of 722.01 and a lower CV of 1.78%, suggesting better manpower optimization and improved stability in workforce management.

The post-merger period for Indian Bank shows a slight decline in both the number of branches and employees, likely due to consolidation efforts and efficiency gains. The decline in the coefficient of variation for both metrics implies improved operational consistency. These trends suggest successful post-merger integration efforts aimed at streamlining resources and optimizing branch-network efficiency without introducing significant variability or operational disruptions.

Tabel 08 - Pre and Post merger operational metrics of – Union Bank of India

Branches and Employess	AB+CRB+UBI			UBI		
	Pre-Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Number of Branches	9622	108.02	1.12	8770.00	339.38	3.87
Number of Employees	76423	1771.32	2.32	75752.60	1563.17	2.06

Note – AB- Andhra Bank, CR- Corporation Bank & UBI-Union Bank of India | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

In the pre-merger phase, the combined entity maintained an average of 9622 branches with a low standard deviation (SD) of 108.02 and a coefficient of variation (CV) of just 1.12%, indicating exceptional stability in branch count. Post-merger, Union Bank's branch count reduced to an average of 8770, with a significantly higher SD of 339.38 and a CV of 3.87%, suggesting increased variation and possible restructuring or consolidation of branches during the integration process.

The average number of employees before the merger was 76,423, with a SD of 1771.32 and CV of 2.32%, showing a reasonably stable workforce. After the merger, the employee strength slightly declined to 75,752, with a lower SD of 1563.17 and CV of 2.06%, indicating enhanced workforce stability and efficient post-merger human resource management.

Union Bank of India witnessed a notable reduction in both branch count and employee strength following the merger. The increased variability in branch numbers post-merger points to ongoing rationalization and network optimization. However, the relatively lower CV for employees post-merger suggests that workforce integration was smooth and more stable. These changes reflect a strategic consolidation approach to improve operational efficiency and reduce redundancies without major fluctuations in staffing.

Tabel 09 - Pre and Post merger operational metrics of – Punjab national bank

Branches and Employees	OBC+UnBI+PNB			PNB		
	Pre-Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Number of Branches	11380	158.33	139	10253	291.29	2.84
Number of Employees	108459	2878.79	2.32	102832	874.34	0.85

Note OBC- Oriental Bank of Commerce UnBi -United Bank of India and PNB-Punjab National Bank | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

The average number of branches declined from 11,380 in the pre-merger phase to 10,253post-mergers, indicating a branch rationalization strategy after the merger. While the mean value dropped, the standard deviation increased from 158.33 to 291.29, and the coefficient of variation (CV) also rose from 1.39% to 2.84%. This indicates that although the overall number of branches reduced, there was more variability or unevenness in the branch distribution during the post-merger phase—possibly due to region-specific consolidation or expansion.

The average employee count also declined from 1,08,459 to 1,02,832, reflecting a moderate reduction in workforce. Interestingly, the standard deviation dropped significantly from 2,878.29 to 874.34, and the CV fell from 2.65% to 0.85%, suggesting that employee deployment became more stable and uniform post-merger, likely due to better HR planning and integration.

Overall, the operational metrics for PNB post-merger reflect a downsizing in both physical and human resources, aligning with expected synergies from large-scale bank mergers. The increased variability in branch numbers signals some geographic or strategic branch-level adjustments, while the improvement in workforce consistency points to stronger HR coordination and efficiency after integration.

Tabel 10 - Pre and Post merger operational metrics of – Bank of Baroda

Branches and Employees	VB+ DB+BoB			BoB		
	Pre Merger			Post Merger		
	Mean	SD	CV	Mean	SD	CV
Number of Branches	9106	650.57	7.14	8478	521.97	6.16
Number of Employees	80485	5483.02	6.81	78444	4209.57	5.37

Note DB - Dena Bank, VB-Vijaya Bank and Bo- Bank of Baroda | Values are computed by the research scholar
Source - Annual report of respective banks, RBI Statistical Tables and Moneycontrol.com

In the pre-merger phase, the three merged entities (VB, DB, and BoB) had an average of 9,106 branches, with a standard deviation (SD) of 650.57 and a coefficient of variation (CV) of 7.14%, indicating a moderately dispersed branch distribution. Post-merger, Bank of Baroda maintained a slightly lower average branch count of 8,478, with a reduced SD of 521.97 and CV of 6.16%, suggesting improved consistency in branch operations and some branch consolidation after integration.

Before the merger, the combined banks had an average workforce of 80,485 employees, with a relatively high SD of 5,483.02 and CV of 6.81%, implying noticeable variation across years. Post-merger, the average number of employees slightly declined to 78,444, accompanied by a lower SD of 4,209.57 and CV of 5.37%, reflecting enhanced workforce stability and a possible optimization of human resources post-consolidation.

Bank of Baroda's post-merger performance in operational metrics indicates a mild reduction in both branch count and workforce, likely reflecting strategic rationalization. The decrease in coefficient of variation for both parameters implies greater operational efficiency and consistency. These changes suggest that the merger allowed Bank of Baroda to streamline operations and manage human capital more effectively while maintaining a strong nationwide presence.

Across the five merged public sector banks—Punjab National Bank (PNB), Union Bank of India (UBI), Indian Bank (IN), Canara Bank (CB), and Bank of Baroda (BoB)—the post-merger period is characterized by strategic consolidation in both branch networks and workforce size. Most banks experienced a reduction in the average number of branches and employees following the mergers, reflecting targeted efforts to optimize service networks and eliminate redundancies for improved operational efficiency. Consistently, the coefficient of variation (CV) for branches and employees either decreased or remained controlled in most cases, suggesting heightened stability and more consistent management of organizational resources. Where variability increased (as with PNB's branches and employees, and UBI's branches), this reflects active realignment and network optimization underway in the integration phase.

V. Conclusion

The merger-driven restructuring appears to be translating into tangible improvements in both asset quality and operational metrics across the public sector banking space. The consistent fall in GNPA and NNPA ratios across all the banks reflects stronger underwriting standards, effective monitoring, and proactive recovery strategies, thereby reinforcing the financial resilience of these institutions. Nonetheless, the rise in variability suggests that certain segments or regions are yet to stabilise and require closer managerial oversight to ensure uniform progress.

To summarize, post-merger, asset quality across the merged public sector banks generally exhibited a positive trajectory, as reflected by the decline in average Gross and Net NPA ratios, signalling strengthened recovery efforts and better provisioning practices. This improvement, however, is accompanied by mixed consistency, with several banks showing higher standard deviation and coefficient of variation, particularly in Net NPAs, suggesting uneven performance and persistent integration challenges. These fluctuations may stem from differing loan resolution capacities, provisioning norms, and regional exposure legacies inherited from the merged entities. Nevertheless, the overall reduction in variability among some banks points to emerging operational and financial stability, implying that while consolidation has begun to deliver improvements in asset quality, sustained focus on harmonising processes and strengthening credit monitoring is essential to maintain long-term consistency.

On the operational side metrics, rationalisation of branch networks and manpower is indicating a shift towards leaner, more agile organisations equipped to compete in a dynamic environment. The controlled or declining CVs in these areas highlight enhanced stability in resource management, even as a few banks continue with realignment to fully integrate legacy systems and processes. In conclusion, while the mergers have largely achieved their intended goals of improving asset quality and operational efficiency, sustained emphasis on harmonisation, digitisation, and performance standardisation will be essential to maintain momentum and secure long-term gains.

To summarise, operational restructuring post-merger has led to moderate consolidation across branches and workforce in all five merged public sector banks, reflecting deliberate efforts to streamline operations and enhance efficiency. The decline in average branch and employee numbers underscores targeted consolidation and redundancy management, while generally lower or stable coefficients of variation signal improved consistency in operational deployment. Notably, Indian Bank, PNB, and Bank of Baroda registered reduced variability in workforce, suggesting growing organisational stability, whereas banks like PNB and UBI showed heightened variability in certain operational and asset quality indicators, indicating transitional disruptions and the inherent complexity of the integration process. Overall, these shifts support the strategic intent of mergers to build more resilient institutions capable of better risk management, though continued focus on harmonising operational practices remains critical.

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