International Journal of Business Economics and Management Research
Vol. 16, Issue 2, February 2025 Impact Factor: 8.857 ISSN: (2229-4848)
www.skirec.org Email Id: skirec.org@gmail.com

"Employee Perception of Core Banking System Efficiency in Public Sector Banks vs. HDFC Bank: Evidence from Bhagalpur"

Dr. Pallaw Kumar alias Pallav Singh Rajput

Department of Commerce and Management

Tilkamanjhi Bhagalpur University, Bhagalpur Bihar.

Abstract:

This research explores employee perceptions of the efficiency of Core Banking Systems (CBS) in public sector banks compared to HDFC Bank, focusing on the Bhagalpur region of Bihar, India. Core banking systems form the technological backbone of modern banking operations, and their effectiveness significantly impacts both employee productivity and customer satisfaction. Despite the widespread implementation of CBS across Indian banks, notable differences exist in system performance and user experience between the public and private sectors.

The study adopts a quantitative research design using a structured questionnaire administered to 100 employees from selected public sector banks (including SBI, PNB, and Bank of India) and HDFC Bank branches in Bhagalpur. The questionnaire evaluates dimensions such as system speed, uptime, user-friendliness, technical support, integration with other banking services, and overall reliability.

Findings indicate that employees in HDFC Bank generally report higher satisfaction with their CBS, citing faster response times, superior user interfaces, and timely technical support. In contrast, employees in public sector banks express mixed opinions, often noting frequent system lags, outdated interfaces, and delayed issue resolution. These disparities suggest a technological and managerial gap that may affect operational efficiency and employee morale in the public banking sector.

The study concludes by recommending targeted upgrades in CBS infrastructure, improved IT support services, and regular training programs for staff in public sector banks. Addressing these gaps can enhance system performance, reduce service downtime, and align employee experiences more closely with evolving customer expectations.

Keywords: Core Banking System**,** Employee Perception**,** Public Sector Banks**,** HDFC Bank**,** System Efficiency

Introduction

In the dynamic and rapidly evolving landscape of the financial sector, technology has emerged as a vital enabler of operational efficiency, customer satisfaction, and competitive advantage. One of the most transformative innovations in modern banking is the implementation of Core Banking Systems (CBS), which serve as the technological backbone of banking operations. CBS enables banks to centralize their records, provide real-time services, automate routine transactions, and ensure seamless integration across branches. For both public and private sector banks in India, the adoption of CBS has been a significant milestone in the journey toward digitalization and modernization.

The Indian banking sector, particularly since the early 2000s, has undergone substantial reforms aimed at enhancing transparency, increasing efficiency, and embracing customer-centric innovations. Public sector banks, traditionally seen as slower to adapt to technological changes due to bureaucratic constraints and legacy infrastructure, have increasingly invested in CBS to remain relevant and competitive. Meanwhile, private sector banks such as HDFC Bank have been at the forefront of adopting cutting-edge technologies, leveraging agile management practices and robust IT infrastructures to provide superior services and experiences. As a result, while CBS implementation is now nearly universal in Indian banking, the effectiveness and efficiency of these systems can vary significantly across institutions.

Employee perception plays a crucial role in determining the success and utilization of CBS. Employees are not only the end-users of these systems but also the facilitators of banking services to customers. Their day-to-day interactions with the CBS influence how efficiently they can perform their duties, respond to customer inquiries, and adapt to changes in the digital ecosystem. Positive employee perceptions often reflect system efficiency, ease of use, and reliability, whereas negative perceptions may point to technical glitches, inadequate support, or training deficits. Therefore, understanding employee perception offers valuable insights into the actual functioning and performance of core banking platforms beyond what system audits or management reports might reveal.

The city of Bhagalpur, located in the eastern Indian state of Bihar, provides an interesting context for this study. As a tier-2 city with growing financial activity, Bhagalpur hosts a range of public sector banks alongside modern private banks such as HDFC. It represents a transitional banking environment where traditional practices coexist with digital advancements. Studying this region enables an exploration of how CBS efficiency is experienced across different banking models within the same socio-economic and infrastructural setting. It also reflects how regional and operational challenges may influence employee interaction with banking technology.

Previous studies on CBS in India have largely focused on customer satisfaction, technological infrastructure, or financial outcomes. However, there is limited academic attention to the internal stakeholders—particularly the bank employees—whose perceptions significantly influence how well these systems are integrated into everyday banking operations. While some research has evaluated CBS implementation outcomes in urban metro regions, few have

addressed comparative employee experiences in smaller cities like Bhagalpur, where infrastructural and training limitations may further impact system efficiency.

This study aims to fill that gap by comparing the perceptions of employees working in public sector banks and those employed by HDFC Bank in Bhagalpur. The core objective is to evaluate how these employees perceive the efficiency of CBS in their respective institutions. It examines key variables such as system speed, reliability, downtime frequency, user interface, integration capabilities, and the quality of technical support. The study also considers the extent to which employees receive training and ongoing support, and how this shapes their confidence in using the system effectively.

A comparative analysis between public and private sector banks is essential, as it reveals structural and managerial differences in how CBS is deployed and maintained. Public sector banks, constrained by government policies and legacy systems, often face challenges in updating their technological infrastructure or providing continuous IT training to staff. In contrast, private banks like HDFC generally operate with more autonomy, streamlined decision-making processes, and greater investment in IT innovation. These differences are likely to result in divergent user experiences, which in turn affect employee productivity and morale.

Understanding these nuances is critical for policymakers, bank management, and IT developers involved in designing and maintaining core banking solutions. By identifying areas of dissatisfaction or inefficiency, this study can help recommend targeted interventions—such as system upgrades, better technical support, or more robust training programs—especially in public sector institutions. It can also highlight best practices from private sector banks that can be adapted to enhance CBS effectiveness across the board.

In summary, this research focuses on assessing employee perceptions of CBS efficiency in public sector banks vis-à-vis HDFC Bank in Bhagalpur. It provides a ground-level view of how banking technology is experienced by those who use it most frequently. Through this lens, the study seeks to contribute to a more holistic understanding of technological effectiveness in the banking sector, while also offering practical insights for improving the performance and user acceptance of core banking systems.

Literature Review

The evolution of Core Banking Systems (CBS) has transformed the operational framework of banks globally, enabling real-time processing, centralized databases, and streamlined customer services. In the Indian context, the rollout of CBS began in earnest during the early 2000s as part of broader banking sector reforms aimed at modernization and technological inclusion. Numerous studies have explored the impact of CBS on operational efficiency, customer satisfaction, and service delivery, but fewer have focused on how employees—key internal stakeholders—perceive these systems across different types of banks.

Technological Advancements and CBS Implementation

According to Singh and Malhotra (2017), CBS implementation has improved service speed, reduced paperwork, and facilitated multi-channel banking. These benefits, however, are more pronounced in private banks, which tend to adopt newer technologies faster due to their flexible management structures and greater IT investments. HDFC Bank, often cited as a leader in digital innovation, has consistently ranked high in terms of CBS performance and user satisfaction (RBI Annual Reports, 2020–2023). In contrast, public sector banks have faced delays in infrastructure upgrades and struggled with legacy systems that impede smooth transitions to newer CBS platforms (Kumar & Bansal, 2018).

Employee Perception and System Efficiency

Employee perception is a critical factor influencing how effectively CBS is utilized. As noted by Sharma (2019), employees who perceive CBS as user-friendly and reliable are more likely to use the system efficiently and deliver better service to customers. A study by Raghunathan (2020) on bank employees in Chennai found that training and technical support were major determinants of employee satisfaction with CBS. It was observed that inadequately trained employees in public sector banks often faced difficulties in using system features effectively, leading to frustration and reduced productivity.

Public vs. Private Sector Banks

Several comparative studies highlight differences in CBS performance between public and private banks. Bhatia and Sood (2016) found that private banks like HDFC and ICICI offered more intuitive user interfaces and faster response times, which contributed to higher levels of employee satisfaction. Public sector employees, while acknowledging the importance of CBS, often reported issues related to slow processing speeds, frequent downtimes, and limited IT support. This technological divide also influences customer service levels, with private banks generally outperforming their public counterparts on technology-driven metrics (RBI Financial Stability Report, 2021).

Regional Context and Infrastructure Challenges

The location of a bank branch also affects CBS performance and employee experience. In semi-urban or rural regions like Bhagalpur, infrastructural limitations such as unstable internet connectivity, delayed technical assistance, and power supply issues can hinder CBS efficiency. As Mishra and Prasad (2022) emphasize, banks operating in such regions often face additional burdens in maintaining system performance, which in turn affects staff perception and service delivery.

Gap in Littérature

While the existing literature offers valuable insights into CBS implementation and performance, most studies focus on customer perspectives or urban bank branches. There is limited research on how employees in tier-2 or semi-urban regions perceive the efficiency of CBS, especially in a comparative context between public and private banks. This study aims to bridge that gap by exploring employee perceptions in Bhagalpur, thereby contributing to a more grounded understanding of CBS functionality in diverse operational contexts.

Methodology

Research Design

This study employs a **quantitative, descriptive, and comparative research design** to examine and compare employee perceptions of Core Banking System (CBS) efficiency in public sector banks and HDFC Bank in Bhagalpur. The primary objective is to assess how employees from both banking sectors perceive the effectiveness of CBS based on key operational parameters such as speed, reliability, usability, and technical support.

Study Area and Population

The research was conducted in **Bhagalpur**, a tier-2 city in the Indian state of Bihar, known for its rich cultural heritage and growing economic activities. Bhagalpur serves as a regional commercial hub with a diverse banking landscape catering to its population and nearby rural areas.

The city hosts several branches of **public sector banks**, including but not limited to:

- State Bank of India (SBI)
- Punjab National Bank (PNB)
- Bank of India (BoI)

Alongside, **private sector banks** such as **HDFC Bank** have established a significant presence, offering modern banking services with advanced technological integration.

Data Overview

Bank Sector	Approximate Number of Branches	Estimated Number of Employees
Public Sector Banks	45	270
HDFC Bank	12	72
Total	**57**	**342**

The **target population** for this study includes bank employees who regularly interact with the Core Banking System (CBS) during their routine operations. This encompasses front-line staff such as customer service representatives, account managers, and back-office personnel involved in processing transactions and maintaining customer accounts.

Data Overview

- **Number of Bank Branches in Bhagalpur (approximate):**
  - Public Sector Banks: 45 branches (SBI: 20, PNB: 15, Bank of India: 10)
  - Private Sector Banks: 15 branches (HDFC Bank: 12, Others: 3)
- **Total Bank Employees (estimated):** Around 600 employees across these branches.
- **Sample Size:** 100 employees (50 from public sector banks, 50 from HDFC Bank).

Sampling Technique and Sample Size

A **stratified random sampling** technique was used to ensure representation from both public and private sector banks. The sample was divided into two strata:

- Employees from public sector banks
- Employees from HDFC Bank

A total of **100 respondents** were selected, with **50 from public sector banks** and **50 from HDFC Bank** branches operating in Bhagalpur.

This stratification ensured that the sample adequately reflects the operational and technological differences characteristic of these banking sectors, allowing for a meaningful comparative analysis of CBS efficiency perceptions.

Data Summary

Bank Sector	Number of Branches (Approx.)	Number of Employees Sampled	Percentage of Total Sample
Public Sector Banks	45	50	50%
HDFC Bank	12	50	50%
Total	**57**	**100**	**100%**

Data Collection Method

Primary data was collected using a **structured questionnaire**, distributed physically and electronically. The questionnaire included **close-ended questions** on a 5-point Likert scale (ranging from Strongly Disagree to Strongly Agree), covering the following dimensions:

1. System Speed and Processing Time
2. System Reliability and Downtime
3. User Interface and Ease of Use
4. Technical Support Availability

5. Integration with Other Banking Services

6. Overall Satisfaction with CBS

To ensure content validity, the questionnaire was reviewed by banking professionals and academic experts in information systems.

Data Analysais

Data collected from the questionnaires were coded and entered into **Microsoft Excel** and analyzed using **Statistical Package for the Social Sciences (SPSS)** software (version 26.0). Descriptive statistics (mean, standard deviation) were used to summarize responses. Comparative analysis between public sector and HDFC Bank responses was conducted using **independent sample t- tests** to identify statistically significant differences in perception levels.

Reliability and Validity

A **pilot study** was conducted with 10 respondents to check the clarity and reliability of the questionnaire. Based on the pilot, minor revisions were made. The final instrument achieved a **Cronbach's alpha** value of **0.84**, indicating high internal consistency and reliability.

Ethical Considerations

Participation in the study was **voluntary**, and all respondents were assured of **confidentiality and anonymity**. No personal identifiers were collected. Informed consent was obtained prior to data collection, and the purpose of the study was clearly communicated to all participants.

Results and Discussion Descriptive Statistics

A total of **100 valid responses** were analyzed, with an equal distribution of **50 employees from**

public sector banks and **50 employees from HDFC Bank**. The study focused on five key dimensions of Core Banking System (CBS) efficiency:

- **System Speed**
- **System Reliability**
- **User Interface**
- **Technical Support**
- **Overall Satisfaction**

Summary of Respo

nses (Mean Scores on a 5-Point Likert Scale)

Variable	Public Sector Banks (Mean)	HDFC Bank (Mean)
System Speed	3.2	4.3
System Reliability	3.0	4.1
User Interface	3.1	4.4
Technical Support	2.9	4.2
Overall Satisfaction	3.0	4.3

Interpretation

- Employees from HDFC Bank consistently rated CBS performance higher across all categories, indicating greater satisfaction and perceived efficiency.
- Public sector employees reported moderate satisfaction, highlighting areas needing improvement, especially in technical support and system reliability.

Visual Representation: Bar Chart of Mean Scores by Bank Type

Figure 1: Comparative mean scores of CBS efficiency dimensions between public sector banks and HDFC Bank employees in Bhagalpur.

1. System Speed and Processing Time

- **HDFC Bank employees** reported higher satisfaction, with a mean score of **4.3**, indicating that CBS responds quickly and processes transactions efficiently.
- **Public sector bank employees** gave a mean score of **3.2**, reflecting moderate satisfaction, with several respondents citing frequent lagging and slower transaction completion.

2. System Reliability and Downtime

- HDFC employees rated system uptime positively (mean = **4.1**), noting minimal downtime and timely issue resolution.
- Public sector employees reported more frequent disruptions (mean = **3.0**), attributing them to older infrastructure and delayed technical maintenance.

3. User Interface and Ease of Use

- HDFC Bank CBS was seen as user-friendly and modern (mean = **4.4**).
- Public sector employees gave an average score of **3.1**, mentioning outdated design and cumbersome navigation.

4. Technical Support

- HDFC employees indicated high responsiveness from IT teams (mean = **4.2**).
- Public sector employees reported dissatisfaction (mean = **2.9**), noting delays in

receiving assistance and lack of on-site technical personnel.

5. Overall Satisfaction with CBS

- HDFC Bank's overall CBS experience scored a mean of **4.3**, indicating strong employee approval.
- Public sector banks scored **3.0**, showing room for improvement.

Inferential Statistics

An **independent sample t-test** was conducted for each variable, comparing means between the two groups. Results showed statistically significant differences ($p < 0.05$) across all five dimensions, confirming that HDFC Bank employees perceive CBS as significantly more efficient than their public sector counterparts.

Discussion

The findings clearly highlight a perceptual gap between employees of public sector banks and HDFC Bank regarding CBS efficiency. HDFC Bank employees generally perceive the system as faster, more reliable, and better supported technically. This aligns with existing literature (e.g., Bhatia & Sood, 2016), which notes that private banks tend to invest more in digital infrastructure, user experience, and backend support.

In contrast, public sector bank employees experience slower systems and more frequent technical problems. These issues are often attributed to legacy systems, bureaucratic procurement processes, and limited IT investments (Kumar & Bansal, 2018). Moreover, public banks often struggle with staffing dedicated IT support, further delaying issue resolution.

One notable issue raised by public sector respondents was the **lack of regular training**, which affects their ability to use CBS efficiently. In HDFC, continuous staff development appears to support smoother CBS use. This reinforces the view of Raghunathan (2020), who emphasized training as a key determinant of system efficiency perception.

The regional context of Bhagalpur also plays a role. Some public bank branches face **infrastructure constraints** such as intermittent power supply and poor internet connectivity, exacerbating the performance issues of CBS. HDFC's use of more advanced infrastructure and redundant systems appears to mitigate these challenges.

These findings underscore the need for **targeted reforms** in public sector banks. Upgrading CBS platforms, investing in regular staff training, and deploying dedicated IT teams can significantly enhance employee perception and overall operational efficiency.

Conclusion

This study explored employee perceptions of Core Banking System (CBS) efficiency in public sector banks compared to HDFC Bank in Bhagalpur. The findings reveal a clear disparity between the two banking sectors, with HDFC Bank employees reporting significantly higher satisfaction across multiple dimensions of CBS performance, including system speed, reliability, user interface, and technical support.

The superior perception of CBS efficiency among HDFC Bank employees can be attributed to the bank's continual investment in advanced technology, robust IT infrastructure, and comprehensive training programs. These factors collectively contribute to smoother system operations, quicker problem resolution, and a user-friendly experience. In contrast, employees of public sector banks face several challenges, including outdated systems, frequent downtime, slow transaction processing, and inadequate technical support. These issues are often compounded by infrastructural limitations in semi-urban areas like Bhagalpur and limited opportunities for regular training.

Employee perception is critical because these internal users are frontline facilitators of banking services. A positive perception directly influences employee productivity, service delivery quality, and ultimately, customer satisfaction. Therefore, improving CBS efficiency and addressing employee concerns is vital for public sector banks striving to compete with private counterparts.

Based on the findings, public sector banks should prioritize upgrading their CBS platforms and enhancing their IT support structures. Regular, focused training for employees on CBS functionalities is essential to improve usability and reduce operational errors. Additionally, addressing infrastructure challenges, such as connectivity and power stability, can minimize system downtimes.

Overall, bridging the efficiency gap between public sector and private banks' core banking systems will require a combination of technological modernization and human resource development. This will ensure that all banks, regardless of sector, can deliver efficient and reliable services, strengthening the overall banking ecosystem in Bhagalpur and beyond.

Références

1) Bhatia, R., & Sood, A. (2016). Comparative study of core banking system efficiency between public and private sector banks in India. *Journal of Banking Technology*, 12(3), 45–58.

2) Kumar, V., & Bansal, P. (2018). Challenges in core banking system implementation in public sector banks: An Indian perspective. *International Journal of Financial Studies*, 6(2), 27–39. https://doi.org/10.3390/ijfs6020027

3) Mishra, S., & Prasad, R. (2022). Impact of regional infrastructure on banking technology adoption in semi-urban India. *Journal of Regional Banking Studies*, 9(1), 15–29.

4) Raghunathan, S. (2020). Employee training and its effect on core banking system efficiency: A case study of banks in Chennai. *Indian Journal of Banking and Finance*, 8(4), 112–125.

5) Reserve Bank of India (RBI). (2021). *Financial Stability Report*. Retrieved from

https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=1184

6) Reserve Bank of India (RBI). (2023). *Annual report on digital banking*. Retrieved from https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx

7) Sharma, P. (2019). User perception and satisfaction of core banking systems in Indian banks. *International Journal of Banking and Finance Research*, 5(2), 55–68.

8) Singh, A., & Malhotra, R. (2017). Technological advancements in Indian banking: Role of core banking systems. *Technology in Banking Journal*, 4(1), 22–35.