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STUDY ON BANKING IT SERVICES WITH CUSTOMER SATISFACTION IN INDIA

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ABSTRACT

The Indian banking system is now working with the objective of providing digital services to their customers. Banking industry is facing challenges with hard competition and advancement of AI technology. Banks always try to provide better services to their customers to meet or exceed the target customers' satisfaction with quality of services desired by them. Hence, the present paper attempted to study customers' Satisfaction related with banking IT services in India. Also through the present paper, study finds the extent of AI technology adoption in commercial banks in this e-age. This research paper is based on secondary data. The digital enabled banking includes Automated Teller Machines (ATM), tele-banking facilities, Internet banking, mobile banking and banking through interconnected branches. All this is achieved by way of core banking solutions (CBS). The study shows the use of digital technology in banks for satisfied customer services. IT/AI enabled services in Indian banks and to analyze the constituent factors affecting customer satisfaction with the quality of services.

Keywords: Digital Banking, Artificial Intelligence (AI), Customer Satisfaction, Banking IT Services, Indian Commercial Banks, Core Banking Solutions (CBS), Internet Banking, Mobile Banking, E-Banking Services, Service Quality, Digital Transformation, Technology Adoption.

INTRODUCTION

Banks can reduce cost and time with the use of AI technology. Theuse of IT in banking services actually provides better services to the customers. All the private sector banks have adopted up-to-date technology in banking operations devised by the leading software and hardware developers. With the aid of this technology, the banks are in a position to render innovative customer service virtually in a matter of minutes. A CBS helps in centralizing the transactions of branches and different banking channels and the customer starts banking with the bank instead of at different branches. This way the banks are able to offer services across different channels (branches, the internet, the telephone and automated teller machines or ATMs) on a real time basis. The private banks were the ones who initiated this and therefore they have a first mover advantage. Now public sector banks adopted the AI tools for better customer services. In order to compete with the private banks they have also started implementing CBS. By March 2007, almost 85% of the branches of PSU were fully computerized and 44.4% of the branches were under CBS implementation.

Now in present days banks can serve save and secure services to their clients with the application of Artificial intelligence (AI) in banking. AI serves the services like enhancing data analysis, find tendencies and fraud risks, and improving customer appointment. AI technology improves the banking working in different sectors. It also enhancesthe banking operations and customer view point about the banking working.

Service Quality: - The quality of service provided by public sector banks, are satisfactory as compare to private sector banks. Public sector banks have far happier customers compared to their counterparts in the private sector. The main objective of public sector banks is to serve better services to their customers. But in actual practice the customer gaining is increasing but the servicing of customers is paid least care.

Banking Services: - The customers have more choices in choosing banking services their banks. A competition has been established within the banks operating in India. With the advancement of technology banking working is entirely changed. Few of the technology-driven electronic banking services being offered are viz. Mobile-banking, ATM (Automated Teller Machines), ECS(Electronic Clearing Service), EFT(Electronic Funds Transfer), , internet banking, UPI etc. New technological capabilities could be effectively used to create value and to better manage customer relationship. Reddy (2001) stated "Banks are at different stages of technology adoption partly due to their different legacies, as much as the differences in their strategic approaches to computerization and technology absorption". Dr. Rangarajan, the former Deputy Governor, Reserve Bank of India, says "Indian banks have to conform to international accounting standards, if Indian banks are to get their due place and recognition in the global financial market" (Jankiraman 1994).

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Banking Technology: - Financial reforms had its impact on Indian banks, and financial institutions, in the fast changing financial environment, fierce competition and changes in the regulatory policies created uncertainty and risk for the Indian banking industry. The Rangarajan Committee Report (1989) highlighted that IT must be looked upon as a means to improve customer service and that the banks' employees should understand the ways to growth and employment expansion (Bide 1997). Subsequently, Narasimham Committee (1992), while highlighting the problems faced by Indian public sector banks, and, as an antidote to the identified lacunae, also stressed the need for greater measure of computerization in banks. To meet the challenges posed by the entry of foreign banks, Indian banks will have to invest heavily in technology to meet competition, reduce cost, improve customer service, improve productivity and offer new products/services.

Customers' Satisfaction: - The efficiency of a banking sector depends upon how best it can deliver services to its target customers. Banks should upgrade their serves according to the new technology and provide repeated customer satisfaction. The Indian banking sector always improves the overall quality of customer services through modern AI tools. A favorable climate for excellent service manifests itself in employee behavior, for example, being attentive to customers, speaking favorably about the organization and its services. With frequent employee-customer contact, customers are more often exposed to such positive behaviors, which in turn, affect customer satisfaction. To sum up, the adoption of technology in banks is increasing with the growing use of Internet, electronic commerce, and various other banking innovations. Evolution of technology in banks is taking place at an enormous pace and it is only question of time before banks commit themselves on full-scale technology up gradation, aiding their growth and adding their competitive features. The computer and the communication age are opening up a flood of new opportunities that are redefining the very concept of traditional banking. The efficiency of a banking sector depends upon how best it can deliver services to its target customers or how far the expectations of customers are met. Any service to be provided to the customers can be differentiated by the service provider from the rest of the service providers if it poses some unique selling proposition. The customers compare the perceived service with the expected service. The customer perceives the service quality to be high if it is perfect on his expectation. This perception leads to customer satisfaction with the related service. In the present time, customer satisfaction is an interesting and dynamic concept. It is a concept, which varies from time to time. What is considered as "good" customer services today may be termed "bad" tomorrow. IT strategies therefore, need to be in proper consonance with bank's marketing strategies. Customers are now demanding an individualistic and are no longer willing to accept delay in transactions.

Different IT Enabled Services Used by Customers: - To overcome growing customer dissatisfaction banks should adopt two-fold strategy. Firstly, the creation of a wide -range of services, suitable and beneficial to the customers and secondly, prompts and efficient delivery of these services by the front line staff. To ensure quick delivery of these services, banks have to introduce revolutionary technological changes like Electronic Fund Transfer (ETF), Electronic Clearing Service(ECS), Net Working the Service Branches, Automatic Teller Machines (ATM), modern and up-dated communication facilities. An attempt was made to scrutinize different IT enabled services used by customers.

ANALYSIS

ATMs of Scheduled Commercial Banks: - During the recent years, the pace and quality of banking was changed by the technological advancements made in this area. Computerization as well as the adoption of core banking solutions was one of the major steps in improving the efficiency of banking services. The new private sector banks and most of the foreign banks, which started their operations in the mid-nineties followed by liberalization, were the front runners in adopting technology. For old private sector banks and public sector banks adoption of technology was an arduous job because of the historical records and practices. However, it is important to note that presently almost 98 per cent of the branches of public sector banks are fully computerized, and within which almost 90 per cent of the branches are on core banking platform. Further, introduction of automated teller machines (ATMs) enabled customers to do banking without visiting the bank branch.

Table -1

ATMs of Scheduled Commercial Banks

(2024-25)

Sr. No.	Bank group	On-site ATMs	Off-site ATMs	Total number of ATMs	Off-site ATMs as per cent of total ATMs
I	**Public sector banks**	79,865	53,679	1,33,544	40.19
II	**Private sector banks**	47,713	29,404	77,117	38.12

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III	**Foreign banks**	587	406	993	40.88
IV	**Small Finance Banks**	3,158	29	3,187	0.90
	All SCBs (I+II+III+IV)	1,31,323	83,518	2,14,841	38.87

Note: Data does not include ATMs of regional rural banks, local area banks, and co-operative banks.

Source: Reports on Trend and Progress of Banking in India 2024-25

Table-1 shows that in 2024-25 that total number of ATMs are 2, 14,841 in all Scheduled commercial banks. Data shows that highest number of ATMs in Public sector banks as compare to other banks. The percentage of off-site ATMs to total ATMs is 38.87. With the installation of ATMs banks provide 24 hours banking services to their customers. Almost all banking functions are done through ATMs. This provides better and advanced banking services.

Table-2

Distribution of ATMs of Bank Groups Population Group-wise

(2024-25)

Bank Group	Rural	Semi-urban	Urban	Metropolitan	Total
Public Sector Banks	28,481	39,630	33,589	31,844	1, 33,544
	(21.3)	(29.7)	(25.2)	(23.8)	(100)
Private Sector Banks	7,569	20,811	18,945	29,792	77,117
	(9.8)	(27.0)	(24.6)	(38.6)	(100)
Foreign Banks	82	282	265	364	993
	(8.3)	(28.4)	(26.7)	(36.7)	(100)
Small Finance Banks	293	992	953	949	3,187
	(9.2)	(31.1)	(29.9)	(29.8)	(100)
SCBs	36,425	61,715	53,752	62,949	2, 14,841
	(17.0)	(28.7)	(25.0)	(29.3)	(100)
White Label ATMs	16,578	12,164	4,733	2,741	36,216
	(45.8)	(33.6)	(13.1)	(7.6)	(100)

Notes: Figures in parentheses indicate %age share of population groups in total ATMs for bank groups.**Source: Reports on Trend and Progress of Banking in India 2024-25**

Table-2 shows that the Public sector banks had a more even distribution of ATMs across population groups, while the presence of ATMs of other bank groups was towards metropolitan, urban, and semi-urban centres. In contrast, 79.4 per cent of the total white labels ATMs were in rural and semi-urban centres at end-March 2025. All scheduled commercial banks shows highest percentage 29.3 in Metropolitan area of the total.

Table-3

Category-wise number of Complaints Received by Offices of the RBI Ombudsman

Item	2024-25
Loans and Advances	86,670
Credit Cards	50,811
Mobile/ Electronic Banking	49,951
Deposit Accounts	49,913
Others	30,760
ATM/ Debit Cards	18,082

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Remittances	3,702
Para-banking	3,322
Pension Payments	2,719
Notes and Coins	391
Total	2, 96,321

Source: Reports on Trend and Progress of Banking in India 2024-25

From the table-3 it is observed that the ccomplaints relating to loans and advances, credit cards, mobile/ internet banking, and deposit accounts contributed to around four-fifths of the total complaints received by ORBIOs during 2024-25. The credit cards category witnessed the highest increase in the number of complaints during 2024-25. This type of services provides the secure and satisfied banking transactions. Customer feels more secure while using digital services.

Table-4

Bank Group-wise Insured Deposits

(Amount in ₹ crore)

Bank Group	**As on March 31, 2025**			
	No. of Insured Banks	**Insured Deposits**	**Assessable Deposits**	**IDR**
Commercial Banks	139	92, 39,260	2, 28, 57,103	40.4
Public Sector Banks	12	59, 53,830	1, 26, 11,152	47.2
Private Sector Banks	21	25, 71,103	81, 93,195	31.4
Foreign Banks	44	52,084	10, 91,743	4.8
Small Finance Banks	11	1, 07,719	2, 70,601	39.8
Payments Banks	6	26,142	26,294	99.4
Regional Rural Banks	43	5, 27,364	6, 62,709	79.6
Local Area Banks	2	1,018	1,409	72.2

IDR: Insured Deposits Ratio. It is the ratio of insured deposits to total assessable deposits in per cent.

Source: Reports on Trend and Progress of Banking in India 2024-25.

Table-4 depict that deposit insurance is an important feature of the financial safety-net system as it bolsters public confidence in the banking system. In India, the Deposit Insurance and Credit Guarantee Corporation (DICGC), a wholly owned subsidiary of the Reserve Bank, administers deposit insurance covering all commercial banks, including RRBs, LABs, and co-operative banks. At end-March 2025, DICGC extended insurance to 139 commercial banks, with the deposit insurance coverage limit of ₹5 lakh per depositor. With this service customer are more secured with risk.

SUGGESTIONS FOR IMPROVING CUSTOMERS SERVICES

- With the use of AI banks can provide fast and secure services to their customers.
- Indian banks become the world's secure and better service provider with the use of advanced technology.
- BanksInfrastructure should be improved Environment should be improved Employee behavior should be improved Work should be completed easily
- BanksEmployees behavior should be improved Infrastructure should be improved Proper guidance should be given to the customers Interest rate should be increased Working hours should be increased Different forms for transaction should be displayed Properly

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- BanksAccessibility should be increased *Bank* Working hours should be increased More facilities should be provided by the bank
- Banks Charges should be reduced Accessibility should be increased Communication with customers should be increased Statements of transactions should be issued to the customers timely
- BanksProper guidance should be given to the customers Information about new services should be given to the customers
- Banks Charges should be reduced Accessibility should be increased Communication with customers should be increased

CONCLUSION

The pace and quality of banking was changed by the technological advancements made in this area. Computerization as well as the adoption of core banking solutions was one of the major steps in improving the efficiency of banking services. Introduction of automated teller machines (ATMs) enabled customers to do banking without visiting the bank branch. Various traditional and IT enabled banking services used by customers are studied in the present paper. In addition, customer satisfaction was also measured with various dimensions. While the charges levied by the bank on different services were perceived higher by the customers in private and foreign banks in comparison to nationalized banks. Security, lack of facility, improper awareness and so on was found to be the reasons for not using IT enabled services. The customers of nationalized banks were not satisfied with the employee behavior and infrastructure, while respondents of private and foreign banks were not satisfied with high charges, accessibility and communication. Training on stress management and public dealing should be imparted to the employees of nationalized banks. Nationalized banks need to improve their infrastructure and ambience to compete with private and foreign banks in India. Branches of private and foreign banks should be increased for easy accessibility. The Reserve Bank set up a separate Customer Service Department in 2006 and also Banking Ombudsman (BO) offices in 15 major banking centers. Since its inception, BO has been an effective forum for redressing complaints received from customers.

The Reserve Bank has been working to create an enabling regulatory environment for fostering innovation and ensuring financial system integrity. Among various emerging technologies, artificial intelligence (AI) is a transformational technology with potential for improving customer engagement, unlocking new forms of credit assessment and delivery, strengthening risk management and fraud detection. Towards this end, the Reserve Bank's Framework for Responsible and Ethical Enablement of AI (FREE-AI) seeks to encourage innovation in the financial sector while balancing risk mitigation. A recent survey conducted by the Reserve Bank indicates that banks are increasingly viewing innovation as a structured component of long-term digital modernisation rather than an episodic experimentation.

The Indian banks are broadly aligned in recognising that innovation is central to sustaining competitiveness, strengthening resilience and enhancing customer experience. A number of banks view innovation as a catalyst for technology enabled process re-engineering to deliver improved efficiency, service quality and risk management. Several banks view innovation as a capability-enhancing exercise for strengthening analytical depth, improving decision-making and enabling more agile service delivery, while others view innovation as an investment in strengthening the digital foundations for cyber security, operational resilience, and regulatory compliance. The share of innovation-related technology delivered through outsourcing/ third party arrangements has also increased, suggesting expanding role for specialised external providers Predominant technologies adopted through third parties include cloud-hosted platforms, vendor-supported cyber security solutions and modular digital platforms. There is a substantial convergence on areas of innovation and transformative technologies receiving emphasis by banks. Cloud services, enterprise data and analytics platforms, AI/ML applications, and cyber security enhancements are increasingly shaping banks' longer-term technology strategies. Application programming interface (API)-based architectures and banking as-a-service models feature prominently in the survey responses, while robotic process automation, digital identity systems, and distributed ledger technologies were also cited in several responses, though with relatively less emphasis. Overall, the survey findings highlight an increase in innovation related spending across bank groups, suggesting that digital transformation has become a core strategic and operational priority rather than a peripheral initiative. (RBI)

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