

E-Banking Service Quality and Customer Satisfaction: Evidence from Public Sector Banks in India

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Abstract: The study examines customer awareness and satisfaction towards e-banking services offered by public sector banks in India. The research focuses on customer usage patterns, preferred digital banking services, satisfaction level, and problems faced while using e-banking facilities. The study is descriptive and analytical in nature and is based on both primary and secondary data. Primary data were collected from 181 respondents through a structured questionnaire using the convenience sampling method. The collected data were analyzed using percentage analysis and tabular presentation. The findings indicate that a majority of respondents are highly aware of and actively use e-banking services, particularly mobile banking and UPI-based transactions. Customers expressed a satisfactory level of experience with digital banking services due to factors such as convenience, accessibility, speed, and round-the-clock availability. However, issues relating to security risks, technical failures, and internet connectivity continue to influence customer experience negatively. The study concludes that e-banking services have significantly enhanced customer satisfaction and improved banking efficiency in public sector banks.

Keywords: E-Banking, Public Sector Banks, Digital Banking, Mobile Banking, UPI Services.

I. Introduction

The banking industry plays a significant role in the economic development of a nation by facilitating savings, investments, and financial transactions. In recent years, technological advancements and digital transformation have revolutionized the banking sector globally. In India, the emergence of electronic banking or e-banking has changed the traditional banking system into a more efficient, customer-oriented, and technology-driven service system. E-banking refers to the delivery of banking services through electronic channels such as the internet, mobile applications, Automated Teller Machines (ATMs), and digital payment platforms. It enables customers to perform banking transactions such as balance enquiry, fund transfer, online shopping payments, utility bill payments, and account management without physically visiting bank branches. The introduction of e-banking services has reduced paperwork, minimized transaction time, improved operational efficiency, and enhanced customer convenience.

Public sector banks in India have played a crucial role in expanding digital banking services across the country. Major public sector banks such as State Bank of India, Punjab National Bank, Bank of Baroda, Canara Bank, and Union Bank of India have adopted modern banking technologies to meet the changing needs of customers. These banks offer a wide range of e-banking services including internet banking, mobile banking, UPI services, ATM facilities, debit and credit cards, and digital payment systems.

Government initiatives such as Digital India and Pradhan Mantri Jan Dhan Yojana have further accelerated the growth of digital banking in India. The increasing use of smartphones, affordable internet services, and growing digital literacy have also encouraged customers to adopt digital banking platforms. Consequently, customers now prefer digital banking services due to their convenience, speed, accessibility, and ease of operation.

Despite the rapid growth of e-banking, several challenges continue to affect customer adoption and satisfaction. Security concerns, cyber fraud, hacking, phishing attacks, technical problems, poor internet connectivity, and lack of digital knowledge remain major barriers, particularly in rural and semi-urban regions. Therefore, understanding customer awareness, satisfaction, and problems associated with e-banking services has become essential for public sector banks.

The present study focuses on analysing customer awareness and satisfaction towards e-banking services offered by public sector banks in India. The study aims to understand customer usage patterns, identify major problems faced by users, and provide suggestions for improving digital banking services.

II. Literature Review

Daniel (1999) studied the provision of electronic banking services in the United Kingdom and Ireland and found that technology-based banking significantly improved customer convenience and reduced operational costs for banks. The study highlighted that customers preferred banking systems that provided quick and easy

access to services. Awudu, Iddrisu. (1999). examined service quality in the banking sector and observed that technological banking services positively influenced customer satisfaction. Reliability, speed, and accessibility were identified as major determinants of customer trust in e-banking services.

Pikkarainen et al. (2004) analyzed customer acceptance of online banking using the Technology Acceptance Model (TAM). The study concluded that perceived usefulness and ease of use were the two most important factors influencing the adoption of internet banking.

Safeena et al. (2011) examined customer adoption of internet banking in developing economies and found that awareness, trust, convenience, and security significantly influenced customer willingness to adopt e-banking services. The study identified security concerns as one of the major barriers to online banking adoption.

Autar (2010) studied e-banking in developing economies and emphasized that technological awareness and internet access are important for successful digital banking implementation. The study suggested that banks should improve customer education and digital infrastructure.

Sharma (2011) analyzed bankers' perspectives regarding e-banking and observed that digital banking improved operational efficiency and reduced paperwork. However, challenges such as cyber fraud, customer resistance, and technical issues continued to affect digital banking growth.

Uppal (2011) discussed the opportunities and challenges associated with e-banking in India. The study found that mobile banking and ATM services were highly accepted among customers, while internet banking adoption remained lower in rural areas due to poor internet connectivity and low digital awareness. Singhal and Padhmanabhan (2008) studied customer perception toward internet banking and concluded that convenience, speed, and twenty-four-hour accessibility were the major reasons behind customer preference for digital banking services. Security and trust were also identified as significant concerns.

Kumbhar (2011) examined customer satisfaction in e-banking and found that service quality, convenience, speed, and security significantly influenced customer satisfaction levels. The study recommended that banks should focus on customer support and safe transaction systems.

The review of literature indicates that e-banking services have become an important component of the modern banking system. Most studies highlight convenience, speed, and accessibility as major benefits, while security risks, low awareness, and technical issues remain major challenges. Therefore, the present study attempts to examine customer awareness, usage, satisfaction, and challenges associated with e-banking services offered by public sector banks in India.

The review of literature indicates that e-banking services have become an integral component of the modern banking system. Most studies highlight convenience, accessibility, and speed as the major advantages of digital banking, whereas security risks, technical problems, and lack of awareness continue to remain significant challenges. Furthermore, existing studies mainly focus on internet banking adoption and digital banking trends in urban areas, while comparatively limited empirical research has been conducted specifically on customer awareness and satisfaction toward e-banking services offered by public sector banks in India. Therefore, the present study attempts to bridge this research gap by examining customer awareness, usage patterns, satisfaction levels, and operational challenges associated with e-banking services provided by public sector banks.

III. Objectives of the Study

1. To analyze customer awareness regarding e-banking services offered by public sector banks.
2. To examine the usage pattern of e-banking services among customers.
3. To evaluate customer satisfaction towards e-banking services.
4. To identify the problems and challenges faced by customers while using e-banking services.

IV. Hypothesis

Null Hypothesis: There is no significant relationship between customer awareness and usage of e-banking services offered by public sector banks.

Alternate Hypothesis: There is a significant relationship between customer awareness and usage of e-banking services offered by public sector banks.

V. Research Methodology

The present study is descriptive and analytical in nature and focuses on examining customer awareness and satisfaction towards e-banking services offered by public sector banks in India. Both primary and secondary data were used for the study.

Primary data were collected through a structured questionnaire from 181 respondents selected using the convenience sampling method from customers of public sector banks in the Nagpur region. Secondary data were collected from research journals, books, RBI reports, bank websites, newspapers, and online sources related to e-banking services.

The collected data were classified, tabulated, and analyzed using percentage analysis and tabular presentation. The study mainly examined customer awareness, usage pattern, satisfaction level, and problems associated with e-banking services. The findings of the study are limited to the selected sample respondents and geographical area.

VI. Data Analysis and Interpretation

Table 1: Demographic Profile of Respondents

Demographic Factors	No. of Respondents	Percentage
Age Group		
Below 20 Years	18	9.94%
21–30 Years	86	47.51%
31–40 Years	52	28.73%
Above 40 Years	25	13.82%
Total	181	100%
Gender		
Male	86	47.51%
Female	95	52.49%
Total	181	100%
Occupation		
Student	76	41.99%
Salaried	63	34.81%
Self-employed	24	13.26%
Business	11	6.08%
Others	7	3.86%
Total	181	100%

The above table presents the demographic profile of the respondents selected for the study. The findings indicate that the majority of respondents (47.51%) belong to the age group of 21–30 years, followed by respondents in the 31–40 years category (28.73%). Respondents above 40 years constitute 13.82%, while only 9.94% belong to the below 20 years category. This indicates that young and middle-aged individuals are more actively involved in using e-banking services due to higher technological awareness and digital accessibility.

In terms of gender, female respondents account for 52.49% of the total sample, which is slightly higher than male respondents at 47.51%. This reflects increasing participation of female customers in digital banking activities and growing acceptance of e-banking services among women.

Occupation-wise analysis reveals that students form the largest group of respondents with 41.99%, followed by salaried employees at 34.81%. Self-employed respondents account for 13.26%, while businesspersons and others represent 6.08% and 3.86% respectively. The findings suggest that students and salaried individuals are more inclined towards e-banking services because of greater exposure to technology, internet usage, and digital transactions.

Table 2: Awareness Regarding E-Banking Services

Response	No. of Respondents	Percentage
Yes	169	93.37%
No	12	6.63%
Total	181	100%

The findings reveal that 93.37% of respondents are aware of e-banking services offered by public sector banks. This indicates a high level of awareness regarding digital banking facilities such as mobile banking, internet banking, UPI services, and ATM facilities. Increased smartphone usage, internet penetration, and government initiatives promoting digital banking have positively contributed to customer awareness.

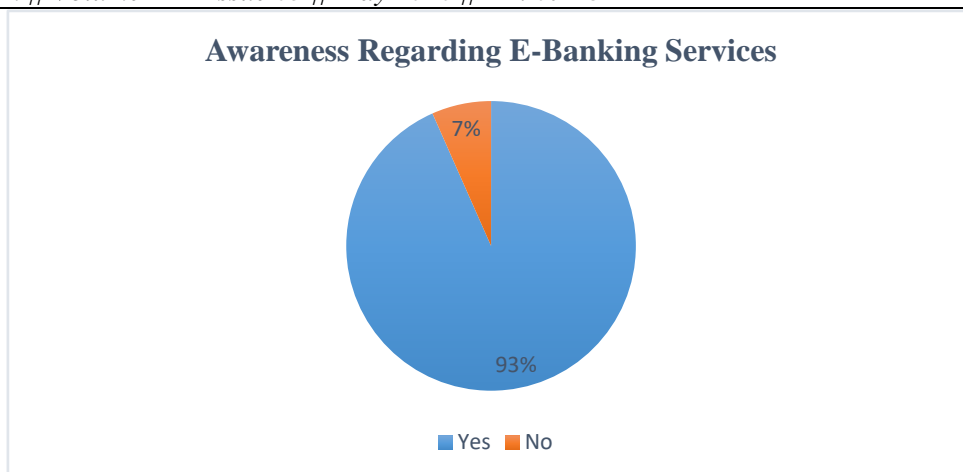


Fig. 1: Awareness Regarding E-Banking Services

Table 3: Usage of E-Banking Services

Response	No. of Respondents	Percentage
Yes	165	91.16%
No	16	8.84%
Total	181	100%

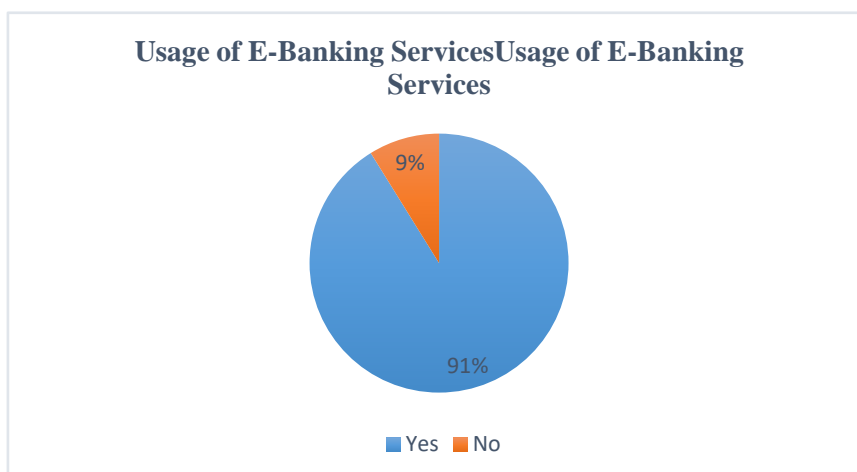


Fig. 2: Usage of E-Banking Services

The analysis indicates that 91.16% of respondents actively use e-banking services for banking transactions. Customers prefer digital banking because it saves time, offers convenience, and provides twenty-four-hour accessibility. A small percentage of respondents still avoid e-banking services due to security concerns, lack of technical knowledge, or preference for traditional banking methods.

Table 4: Preferred E-Banking Service

E-Banking Services	No. of Respondents	Percentage
Mobile Banking	74	40.88%
UPI Services	56	30.94%
Internet Banking	31	17.13%
ATM Services	20	11.05%
Total	181	100%

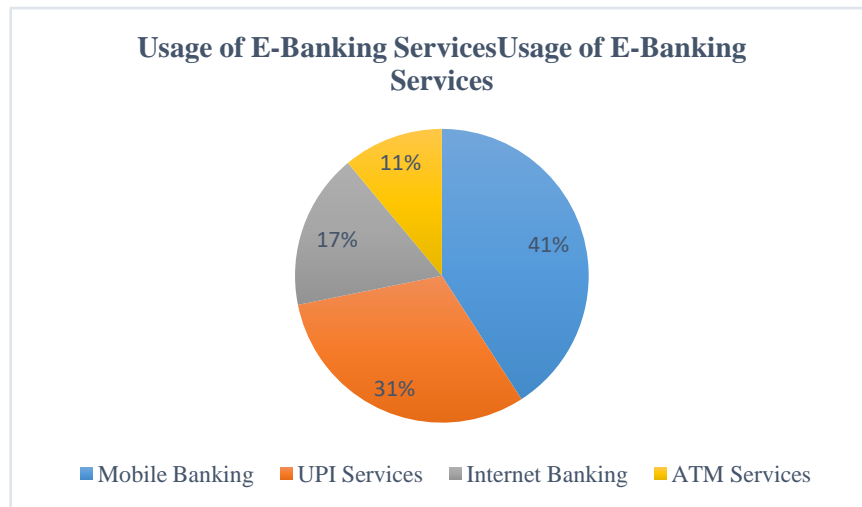


Fig. 3: Usage of E-Banking Services

The findings show that mobile banking is the most preferred e-banking service among respondents, accounting for 40.88% of total responses. UPI services emerged as the second most preferred platform because of instant transaction facilities and ease of use. Internet banking and ATM services are comparatively less preferred. The analysis indicates a growing shift toward mobile-based digital banking platforms.

Table 5: Customer Satisfaction towards E-Banking Services

Satisfaction Level	No. of Respondents	Percentage
Highly Satisfied	58	32.04%
Satisfied	94	51.93%
Neutral	21	11.60%
Dissatisfied	8	4.43%
Total	181	100%

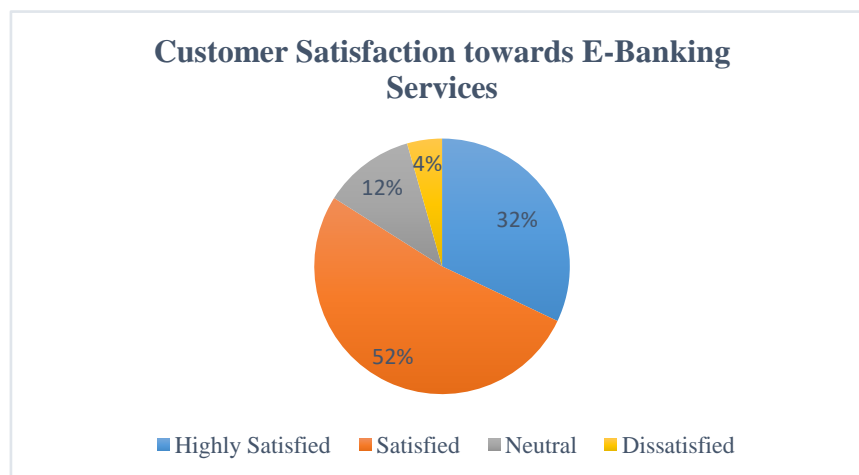


Fig. 4: Customer Satisfaction towards E-Banking Services

The majority of respondents expressed satisfaction with e-banking services offered by public sector banks. Around 51.93% respondents are satisfied, while 32.04% are highly satisfied with digital banking services. Customers appreciate e-banking because of convenience, faster transactions, and easy accessibility. However, a small percentage of respondents reported dissatisfaction due to technical issues and security concerns.

Table 6: Problems Faced While Using E-Banking Services

Problems	No. of Respondents	Percentage
Security Issues	67	37.02%
Technical Problems	48	26.52%
Internet Connectivity Issues	39	21.55%
Lack of Knowledge	27	14.91%
Total	181	100%

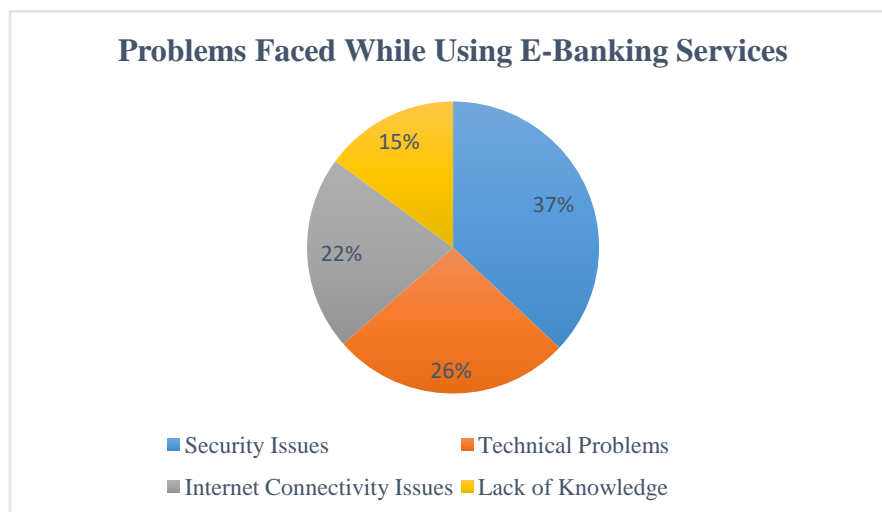


Fig. 5: Problems Faced While Using E-Banking Services

The analysis reveals that security concerns are the major problem faced by respondents while using e-banking services. Customers are worried about cyber fraud, hacking, phishing attacks, and misuse of personal financial information. Technical problems and poor internet connectivity also affect customer experience. Lack of digital knowledge remains another important challenge, particularly among less technologically aware users.

Hypothesis Testing-

Based on the data analysis, we observed that 93.37% of respondents are aware of e-banking services, while 91.16% actively use these services. The high percentage of awareness and actual usage clearly indicates that customers who are aware of e-banking facilities are more likely to use them for banking transactions. Therefore, the null hypothesis (H1) is rejected. The study concludes that there is a significant relationship between customer awareness and usage of e-banking services offered by public sector banks in India.

VII. Conclusion

The present study concludes that e-banking services have significantly transformed the banking experience of customers in public sector banks in India. The findings reveal that a majority of respondents are highly aware of and actively use e-banking services such as mobile banking, UPI services, internet banking, and ATM facilities. Customers prefer digital banking mainly because of convenience, faster transactions, easy accessibility, and twenty-four-hour service availability. The study also indicates that mobile banking and UPI services are the most preferred digital banking platforms among customers. Most respondents expressed satisfaction with e-banking services, which shows that public sector banks have been successful in improving customer service quality through digital banking initiatives. However, issues such as security concerns, technical problems, internet connectivity issues, and lack of digital knowledge continue to affect customer experience and satisfaction. The hypothesis testing further confirms that customer awareness significantly influences the usage of e-banking services. Overall, the study concludes that e-banking services have positively contributed to customer satisfaction and improved operational efficiency in public sector banks.

VIII. Future Scope

The scope of the present study is limited to examining customer awareness, usage patterns, satisfaction levels, and problems associated with e-banking services offered by public sector banks in India. The study mainly focuses on customers from the Nagpur region and includes services such as mobile banking, internet banking, UPI services, and ATM facilities. Future research can be conducted on a larger geographical area by including customers from different states and regions of India for broader analysis and comparison. Further studies may also compare e-banking service quality between public sector and private sector banks. In addition, future researchers can use advanced statistical tools and larger sample sizes to examine factors influencing customer satisfaction, digital banking adoption, trust, and security perception in greater detail.

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