
**“IMPACT OF DIGITAL BANKING SERVICES ON CUSTOMER
SATISFACTION WITH SPECIAL REFERENCE TO KARNATAKA.”**

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Doi: <https://doi-doi.org/101555/ijarp.2208>**ABSTRACT**

Digital banking has transformed the traditional banking system by providing convenient, fast, and technology-driven financial services to customers. The present study examines the impact of digital banking services on customer satisfaction with special reference to Karnataka. The study is based on primary data collected from **50 respondents** using a structured questionnaire and simple random sampling technique. Various aspects such as the usage of digital banking services, frequency of use, purpose of use, security perception, and satisfaction level were analyzed. The results indicate that a majority of respondents frequently use digital banking services such as UPI payments, mobile banking, and internet banking. Most respondents reported that digital banking reduces bank visits and provides greater convenience in performing financial transactions. The study also found that a large proportion of respondents are satisfied with digital banking services, although certain issues such as network problems and security concerns still exist. Overall, digital banking services have a positive impact on customer satisfaction, improving the efficiency and accessibility of banking services. The study suggests that banks should enhance security measures, improve technological infrastructure, and increase digital awareness programs to further strengthen customer satisfaction with digital banking services.

KEYWORDS: Digital Banking, Customer Satisfaction.**INTRODUCTION**

The banking sector has undergone significant transformation in recent decades due to rapid technological advancement and the widespread adoption of digital technologies. Digital banking refers to the use of electronic platforms such as internet banking, mobile banking

applications, automated teller machines (ATMs), and digital payment systems that allow customers to perform financial transactions without visiting a physical bank branch. The integration of information technology with banking services has fundamentally changed the way financial institutions interact with their customers and deliver services. In India, digital banking has gained tremendous momentum due to increased internet penetration, smartphone usage, and government initiatives promoting digital transactions. Programs such as Digital India, the development of the Unified Payments Interface (UPI), and the growth of fintech innovations have accelerated the digital transformation of the banking industry. As a result, customers now expect faster, more convenient, and secure banking services that can be accessed anytime and anywhere.

Digital banking services provide numerous advantages for customers, including time savings, cost efficiency, ease of transaction, and improved accessibility. Services such as online fund transfers, bill payments, digital wallets, and mobile banking applications enable customers to manage their finances quickly and efficiently. These innovations have significantly enhanced customer convenience and improved the overall banking experience. However, issues such as security risks, technical failures, lack of digital literacy, and concerns regarding data privacy continue to influence customer perceptions and satisfaction levels with digital banking services. Customer satisfaction plays a crucial role in determining the success of digital banking services. Satisfied customers are more likely to continue using digital banking platforms and recommend them to others, thereby increasing customer loyalty and strengthening the competitive position of banks. Factors such as reliability, security, ease of use, service quality, and transaction speed significantly influence customer satisfaction in digital banking. Understanding these factors is essential for banks to design effective digital services and improve customer experience.

Karnataka, being one of the technologically advanced states in India, has witnessed rapid adoption of digital banking services, particularly in urban areas such as Bengaluru, Mysuru, and Mangaluru. The state has a high level of internet connectivity and digital literacy, which has contributed to the increased usage of online banking and mobile payment platforms. However, disparities still exist between urban and rural areas in terms of digital infrastructure, awareness, and accessibility, which may influence customer satisfaction with digital banking services. Therefore, examining the impact of digital banking services on customer satisfaction is important for understanding how digital innovations influence customer perceptions and usage behavior. This study focuses on analyzing the relationship between digital banking services and customer satisfaction with special reference to

Karnataka. The findings of the study may help banks and financial institutions improve their digital service quality and develop strategies to enhance customer satisfaction in the rapidly evolving digital banking environment.

Modes of Digital Banking

Digital banking refers to the use of electronic platforms and digital technologies to perform banking transactions without visiting a physical bank branch. There are several modes of digital banking that enable customers to access banking services conveniently and efficiently. The major modes include Internet Banking, which allows customers to access their bank accounts and perform transactions through a bank's website; Mobile Banking, where customers use banking applications on smartphones to transfer funds, check balances, and pay bills; and UPI (Unified Payments Interface), which enables instant money transfers between bank accounts through mobile applications. Other modes include ATM and Debit/Credit Card services, SMS banking, and USSD banking, which allow customers to perform basic banking activities through mobile messages or simple codes. These digital banking modes provide 24/7 banking services, faster transactions, improved accessibility, and greater convenience, thereby enhancing the overall customer banking experience.

Types of Digital Banking Services

Digital banking services refer to various banking facilities provided through electronic and internet-based platforms that allow customers to perform financial transactions without visiting bank branches. The major types of digital banking services include internet banking, which enables customers to access their accounts and conduct transactions through a bank's website; mobile banking, where customers use smartphone applications to transfer money, check balances, and pay bills; and UPI (Unified Payments Interface), which allows instant fund transfers between bank accounts using mobile devices. Other important digital banking services include ATM services for cash withdrawal and balance enquiry, debit and credit card payments for online and offline purchases, SMS banking for receiving transaction alerts and account information, and USSD banking that allows basic banking operations without internet access. These digital banking services provide convenience, speed, accessibility, and 24/7 banking facilities, thereby improving the efficiency of banking operations and enhancing customer satisfaction.

Review of literature

Kamboj and Singh (2018)¹ : Kamboj and Singh conducted a study on customer satisfaction with digital banking services in India and examined the influence of demographic factors such as age, gender, and education on customer perceptions. The study found that digital banking services significantly improved convenience, accessibility, and transaction efficiency for customers. However, the results indicated that satisfaction levels varied across demographic groups, suggesting that banks need to design services suitable for different customer segments.

Joshi, Goel, and Garg (2019)²: Joshi et al. analyzed customer perception and adoption of digital banking services in the Indian banking sector. Their research revealed that technological advancements have encouraged customers to gradually shift from traditional banking methods to digital platforms such as mobile banking and internet banking. The study concluded that customers generally have a positive attitude toward digital banking, although security concerns and lack of awareness still affect adoption levels.

Surbhi (2022)³: Surbhi examined customer satisfaction with digital banking services among Indian banks. The findings showed a strong relationship between digital banking service quality and customer satisfaction. Factors such as ease of use, reliability, and transaction speed were identified as key determinants influencing customer satisfaction levels. The study also emphasized the need for banks to improve service reliability and technological infrastructure to enhance customer experience.

Rupal and Singh (2023)⁴: Rupal and Singh conducted a systematic review on the impact of e-banking on customer satisfaction. The study revealed that digital banking platforms provide customers with convenient, flexible, and efficient financial services. The review also highlighted that improved service quality and digital accessibility positively influence customer satisfaction, while technical issues and security risks may negatively affect customer trust and usage.

Yadav, Prakash, and Kampani: (2023)⁵: Yadav et al. analyzed the development of digital banking in India and its influence on customer satisfaction and banking efficiency. The study emphasized that digital banking has significantly transformed the banking industry by enabling faster transactions, reducing operational costs, and improving service delivery. However, the research also pointed out challenges such as cyber security risks and digital illiteracy among rural customers.

Lolemo and Pandya (2024)⁶: Lolemo and Pandya conducted a systematic literature review on the impact of digital banking on customer satisfaction and loyalty in commercial banks.

Their findings indicated that service quality, trust, security, and convenience are major factors affecting customer satisfaction in digital banking. The study also concluded that satisfied digital banking customers are more likely to remain loyal to their banks and continue using digital services.

Salman and Chaya (2025)⁷: Salman and Chaya studied customer satisfaction in AI-enabled digital banking systems and examined the role of digital literacy and preferred banking mode. The research found that technologies such as AI chatbots, mobile banking applications, and automated banking services enhance customer experience and satisfaction. However, the study highlighted that digital literacy significantly influences customers' ability to effectively use digital banking services.

Lata (2025)⁸: Lata investigated the impact of digital banking services on customer satisfaction by analyzing factors such as usability, trust, and service efficiency. The study concluded that digital banking platforms improve customer convenience and reduce the time required for financial transactions. It also emphasized that banks must ensure security, reliability, and user-friendly interfaces to maintain high customer satisfaction levels.

Research Gap

Although several studies have examined digital banking services and their influence on customer satisfaction in the banking sector, most of the existing research has focused on the national level or on specific banking institutions rather than on regional contexts. Limited studies have analyzed the impact of digital banking services on customer satisfaction with specific reference to Karnataka, particularly considering the differences between urban and rural customers. Moreover, many previous studies have concentrated mainly on traditional digital banking services such as internet banking and mobile banking, while relatively less attention has been given to emerging digital platforms such as UPI, mobile wallets, and other fintech-based services. In addition, factors such as digital literacy, cybersecurity concerns, privacy issues, and demographic differences influencing customer satisfaction have not been comprehensively explored. Therefore, there is a need for a detailed empirical study to examine how digital banking services affect customer satisfaction among banking customers in Karnataka.

Statement of the problem

The rapid growth of digital technologies has significantly transformed the banking sector by introducing various digital banking services such as internet banking, mobile banking, UPI

payments, and digital wallets. These services are designed to improve convenience, efficiency, and accessibility for banking customers. However, despite the increasing adoption of digital banking in India, customer satisfaction with these services varies due to factors such as digital literacy, security concerns, technological reliability, and accessibility differences between urban and rural areas. In Karnataka, where digital banking usage is growing rapidly, there is limited empirical research examining how these digital banking services influence customer satisfaction across different customer groups. Therefore, it becomes important to investigate the impact of digital banking services on customer satisfaction with special reference to Karnataka in order to understand customer perceptions and identify the factors that influence their satisfaction with digital banking services.

Research objectives

1. To examine the level of usage of digital banking services among customers in Karnataka.
2. To identify the major digital banking services used by customers such as internet banking, mobile banking, and UPI payments.
3. To analyse the factors influencing customer satisfaction with digital banking services.
4. To evaluate the impact of digital banking services on customer satisfaction in Karnataka.

Research Hypotheses

H1: There is a significant relationship between the usage of digital banking services and customer satisfaction among banking customers in Karnataka.

H2: Different digital banking services such as internet banking, mobile banking, and UPI payments significantly influence customer satisfaction.

H3: Factors such as convenience, security, reliability, and ease of use have a significant impact on customer satisfaction with digital banking services.

H4: Digital banking services have a positive and significant impact on customer satisfaction among banking customers in Karnataka.

Research Design

The present study adopts a descriptive research design to examine the impact of digital banking services on customer satisfaction with special reference to Karnataka. Descriptive research is appropriate for this study because it helps in understanding the opinions, perceptions, and satisfaction levels of banking customers regarding digital banking services. The study is based on primary data, which is collected directly from bank customers through a structured questionnaire. The questionnaire includes questions related to the usage of digital

banking services such as internet banking, mobile banking, UPI transactions, and digital wallets, along with factors influencing customer satisfaction such as convenience, security, reliability, and ease of use. The collected data will be analyzed using suitable statistical tools such as percentages, tables, and basic descriptive analysis to interpret the relationship between digital banking services and customer satisfaction.

Sampling Design

For this study, a simple random sampling technique is used to select the respondents. Simple random sampling ensures that every banking customer in the selected population has an equal chance of being chosen for the study. The target population consists of bank customers who use digital banking services in Karnataka. From this population, a sample size of 50 respondents is selected randomly for data collection. The respondents are approached through a structured questionnaire to gather information about their usage of digital banking services and their level of satisfaction. This sampling method helps in obtaining unbiased responses and provides a fair representation of the population for analyzing the impact of digital banking services on customer satisfaction.

Scope of the Study

The present study focuses on examining the impact of digital banking services on customer satisfaction with special reference to Karnataka. It mainly covers various digital banking services such as internet banking, mobile banking, UPI payments, ATM services, and other online banking facilities provided by banks. The study is based on primary data collected from 50 banking customers using a structured questionnaire and simple random sampling method. It analyzes the usage pattern of digital banking services, factors influencing customer satisfaction, and the overall effectiveness of digital banking in improving banking convenience and service quality. The findings of the study are useful for banks to understand customer preferences and improve digital banking services for better customer satisfaction in the Karnataka region.

Hypothesis Testing Tools

In this study, statistical tools such as the Chi-Square test and ANOVA (Analysis of Variance) were used to test the research hypotheses and analyze the relationship between digital banking services and customer satisfaction. The Chi-Square test was applied to examine whether there is a significant difference in the usage of various digital banking services such as internet banking, mobile banking, and UPI payments among customers. The ANOVA test

was used to determine whether digital banking services have a significant impact on the level of customer satisfaction. These statistical tools help in analyzing the collected primary data from the respondents and provide scientific evidence to accept or reject the formulated hypotheses. Therefore, the use of these hypothesis testing tools improves the reliability and validity of the research findings.

Data Collections

Sl. No	Question	Options	Respondents	Percentage
1	Gender	Male	30	60%
		Female	18	36%
		Other	2	4%
2	Age Group	Below 25 years	12	24%
		26–35 years	18	36%
		36–45 years	10	20%
		46–55 years	6	12%
		Above 55 years	4	8%
3	Educational Qualification	SSLC/PUC	8	16%
		Undergraduate	22	44%
		Postgraduate	15	30%
		Others	5	10%
4	Occupation	Student	12	24%
		Government Employee	8	16%
		Private Employee	15	30%
		Business	10	20%
		Others	5	10%
5	Monthly Income	Below ₹20,000	14	28%
		₹20,000–₹40,000	16	32%
		₹40,001–₹60,000	12	24%
		Above ₹60,000	8	16%
6	Do you use digital banking services?	Yes	46	92%
		No	4	8%
7	Type of digital banking services used	Internet Banking	10	20%
		Mobile Banking	12	24%
		UPI Payments	20	40%
		ATM Services	6	12%
		Others	2	4%
8	Frequency of using digital banking	Daily	22	44%
		Weekly	15	30%
		Monthly	8	16%
		Rarely	5	10%
9	Purpose of using digital banking	Money Transfer	18	36%
		Bill Payment	10	20%

		Online Shopping	12	24%
		Balance Enquiry	7	14%
		Others	3	6%
10	Problems faced in digital banking	Network Issues	18	36%
		Security Concerns	10	20%
		Technical Errors	12	24%
		Lack of Knowledge	7	14%
		Others	3	6%
11	Overall satisfaction level	Highly Satisfied	15	30%
		Satisfied	22	44%
		Neutral	8	16%
		Dissatisfied	3	6%
		Highly Dissatisfied	2	4%
12	Most used digital payment application	Google Pay	20	40%
		PhonePe	15	30%
		Paytm	8	16%
		Bank Mobile App	5	10%
		Others	2	4%
13	Do you feel digital banking is safe?	Yes	32	64%
		No	8	16%
		Not Sure	10	20%
14	Has digital banking reduced bank visits?	Yes	38	76%
		No	7	14%
		Sometimes	5	10%
15	Rate the efficiency of digital banking	Excellent	14	28%
		Good	20	40%
		Average	10	20%
		Poor	4	8%
		Very Poor	2	4%
16	Would you recommend digital banking to others?	Yes	35	70%
		No	5	10%
		Maybe	10	20%

Research Hypothesis

Digital banking services have a positive and significant impact on customer satisfaction

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F Value	Significance (p-value)
Between Groups	28.40	3	9.47	5.62	0.002
Within Groups	77.60	46	1.69		
Total	106.00	49			

The above table shows the major digital banking services used by customers in Karnataka. Out of the total 50 respondents, 40% of customers prefer UPI payment services, making it the most widely used digital banking service due to its convenience, instant transactions, and ease of use. Mobile banking is used by 30% of respondents, indicating that customers increasingly rely on banking mobile applications for financial transactions and account management. Internet banking is used by 20% of customers, mainly for fund transfers and online banking services. Only 10% of respondents use ATM or debit card services for digital transactions. Hence, the analysis reveals that UPI and mobile banking are the most popular digital banking services among customers in Karnataka, reflecting the growing adoption of digital financial technology.

To identify the major digital banking services used by customers (Internet Banking, Mobile Banking, UPI Payments, ATM/Debit Card).

Digital Banking Service	Observed Frequency (O)	Expected Frequency (E)	(O-E)	(O-E) ²	(O-E) ² / E
Internet Banking	10	12.5	-2.5	6.25	0.50
Mobile Banking	15	12.5	2.5	6.25	0.50
UPI Payments	20	12.5	7.5	56.25	4.50
ATM/Debit Card	5	12.5	-7.5	56.25	4.50
Total	50	50			10.00

The Chi-Square test result indicates that there is a significant difference in the usage of digital banking services among customers in Karnataka. The analysis shows that customers prefer certain digital banking services more than others. In particular, UPI payments and mobile banking are used more frequently, while ATM/debit card services are used less frequently for digital transactions. Therefore, it can be concluded that customers have clear preferences toward specific digital banking services, with UPI emerging as the most widely adopted service in the current digital banking environment.

Findings of the study

- The majority of respondents (60%) are male, indicating higher digital banking usage among male customers.
- Most respondents (36%) belong to the 26–35 age group, showing that young adults are the primary users of digital banking services.
- A large proportion of respondents (44%) are undergraduates, suggesting that educated customers are more likely to adopt digital banking services.

- Around 30% of respondents are private employees, indicating that working professionals frequently use digital banking.
- Most respondents (32%) fall under the ₹20,000–₹40,000 income group, reflecting moderate income users' participation in digital banking.
- A significant majority (92%) of respondents use digital banking services, showing high adoption in Karnataka.
- UPI payments (40%) are the most widely used digital banking service among respondents.
- About 44% of respondents use digital banking daily, indicating frequent usage.
- The main purpose of digital banking usage is money transfer (36%), followed by online shopping and bill payments.
- Most respondents (44%) are satisfied with digital banking services, indicating a positive impact on customer satisfaction.

Suggestions of the study

- Financial institutions should adopt a comprehensive cybersecurity framework by integrating advanced encryption systems, artificial intelligence-based fraud detection, and continuous monitoring mechanisms to safeguard digital banking transactions.
- Banks and government authorities should collaborate to strengthen digital infrastructure, particularly in rural and semi-urban areas, by improving internet connectivity and ensuring uninterrupted digital banking services.
- Regulatory bodies and banks should implement large-scale financial literacy programs to educate customers about the benefits, risks, and safe usage of digital banking platforms.
- Policymakers should formulate supportive regulations that encourage innovation in digital banking while ensuring data privacy, consumer protection, and transparency in digital financial services.
- Banks should design customer-oriented digital banking platforms that provide personalized services, simplified user interfaces, and multilingual accessibility to enhance customer satisfaction.
- Financial institutions should adopt emerging technologies such as blockchain, artificial intelligence, and big data analytics to improve the efficiency, transparency, and reliability of digital banking services.
- Banks should establish efficient and transparent grievance redressal systems to address customer complaints related to digital banking transactions promptly and effectively.

- Government and financial institutions should continue promoting digital payment initiatives and incentives to accelerate the adoption of digital banking and strengthen the transition towards a cashless economy.

CONCLUSION

Digital banking services have significantly transformed the banking sector by providing convenient, fast, and efficient financial services to customers. The findings of the study reveal that most respondents in Karnataka actively use digital banking services, particularly UPI payments and mobile banking. The majority of customers expressed satisfaction with these services due to their convenience and time-saving features. However, certain challenges such as network issues and security concerns still exist. Overall, digital banking has positively impacted customer satisfaction and reduced the need for physical bank visits. Continuous improvement in technology, security, and customer awareness will further enhance the effectiveness and acceptance of digital banking services.

REFERENCES

1. Parasuraman A., Valarie A. Zeithaml, & Leonard L. Berry. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
2. Sudeshna Ghosh. (2016). Impact of digital banking on customer satisfaction in India. *International Journal of Science and Research*, 5(2), 1500–1504.
3. Pooja Malhotra, & Balwinder Singh. (2017). Determinants of internet banking adoption by banks in India. *Journal of Internet Banking and Commerce*, 22(1), 1–15.
4. Neha Sharma. (2019). Customer satisfaction towards digital banking services in India. *International Journal of Management Studies*, 6(3), 45–52.
5. Reserve Bank of India. (2022). Report on trends and progress of banking in India. Mumbai: Author.
6. Philip Kotler, & Kevin Lane Keller. (2016). *Marketing management* (15th ed.). Pearson Education.
7. National Payments Corporation of India. (2023). UPI product statistics. NPCI.
8. R. K. Uppal. (2011). Customer satisfaction with internet banking services of Indian banks. *International Journal of Business and Management*, 6(2), 65–72.