# Study on Customer Awareness on Digital Banking: An empirical study in Davangere District, Karnataka

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**Abstract**

Digital banking has emerged as a key driver of efficiency and financial inclusion in the Indian banking system; however, its effective adoption depends largely on customer awareness. This empirical study examines the level of customer awareness on digital banking in Davangere District, Karnataka. Primary data were collected from 120 bank customers using a structured questionnaire. The study employed percentage analysis and the Chi-square test to analyze awareness levels and examine their association with selected demographic variables. The results reveal that 100% of the respondents are aware of ATM services, while awareness of UPI payments accounts for 95% and mobile banking applications for 81.7%. In contrast, awareness of internet banking (63.3%) and grievance redressal mechanisms (45%) remains relatively low. The Chi-square analysis indicates a significant association between customer awareness and age ($\chi^2 = 6.87$, $p < 0.05$) and educational qualification ($\chi^2 = 12.44$, $p < 0.05$). Fear of cyber fraud (40%) and poor internet connectivity (30%) were identified as major challenges. The study concludes that targeted digital literacy programs and enhanced customer education on security practices are essential to promote safe and inclusive digital banking adoption.

**Keywords:** Digital Banking, Customer Awareness, UPI Payments, Mobile Banking, Cyber Security, Financial Inclusion

## 1. Introduction

The Indian banking system has witnessed a significant transformation with the rapid advancement of digital technologies. Digital banking refers to the delivery of banking products and services through electronic channels such as mobile applications, internet banking platforms, automated teller machines, and digital payment interfaces. The Government of India's initiatives such as *Digital India*, *Jan Dhan–Aadhaar–Mobile (JAM) Trinity*, and the promotion of cashless transactions have accelerated the adoption of digital banking across urban and rural regions. Customer awareness is a fundamental determinant of digital banking adoption. Awareness not only includes knowledge of available services but also understanding usage procedures, benefits, risks, and security practices. Despite widespread availability of digital banking facilities, many customers continue to rely on conventional banking due to lack of confidence, fear of cyber fraud, and limited digital literacy. Davangere district, characterized by a blend of urban, semi-urban, and rural population, provides an appropriate setting to assess customer awareness and perception towards digital banking. Digital banking enhances convenience, reduces transaction costs, improves transparency, and supports financial inclusion. However, the effectiveness of these services depends largely on the extent to which customers are aware, informed, and capable of using them securely. Hence, an empirical examination of customer awareness in Davangere district is both timely and relevant.

## 2. Theoretical Background

Customer awareness on digital banking is a multidimensional concept influenced by technological, psychological, and socio-economic factors. Awareness refers not only to the knowledge of the availability of digital banking services but also to the understanding of their usage, benefits, risks, and security measures. Customers who are aware of digital banking facilities such as mobile banking, internet banking, UPI payments, debit and credit cards, and electronic fund transfer systems are more likely to adopt these services effectively. Ease of use plays a significant role in shaping awareness, as customers tend to prefer digital platforms that are simple, user-friendly, and require minimal technical skills. Perceived security is another critical factor affecting customer awareness and confidence in digital banking. Concerns related to cyber fraud, phishing attacks, data privacy, and unauthorized access often discourage customers from fully utilizing digital banking services. Customers with better awareness of security features such as OTP authentication, biometric verification, transaction alerts, and grievance redressal mechanisms are more confident in using digital platforms. Access to technology, including availability of smartphones, internet connectivity, and reliable digital infrastructure, also significantly influences awareness levels, particularly in semi-urban and rural areas.

Educational background and digital literacy further determine the extent of customer awareness. Higher levels of education generally lead to better understanding and acceptance of digital banking services. Trust in banking institutions and digital payment platforms enhances awareness and willingness to adopt technology-driven banking solutions. Additionally, cost efficiency and convenience offered by digital banking, such as reduced transaction time and lower service charges, positively influence customer perception and awareness. Support services provided by banks, including customer assistance, demonstrations, awareness campaigns, and multilingual guidance, play an essential role in improving awareness among customers. Government initiatives promoting digital payments and financial inclusion have also contributed significantly to increasing awareness of digital banking services. However, continuous efforts are required to bridge the gap between basic awareness and comprehensive understanding to ensure safe, inclusive, and sustainable adoption of digital banking.

## 3. Review of Literature

Rao and Sharma (2017) conducted a study on customer adoption of digital banking services in India and found that awareness and perceived usefulness significantly influence customer acceptance. The study revealed that customers who possessed adequate knowledge of digital banking tools such as mobile banking and internet banking were more likely to use them regularly. Lack of awareness regarding security features was identified as a major concern affecting adoption. Singh and Srivastava (2018) examined the factors influencing customer awareness and usage of digital banking services. Their study highlighted that education level and age play a crucial role in determining awareness. Younger and more educated customers exhibited higher awareness and confidence in using digital platforms, whereas older customers expressed apprehension due to fear of fraud and technological complexity. Kumar (2019) analyzed the impact of digital payment systems on customer awareness with special reference to UPI services in India. The study found that government initiatives and bank-led promotional campaigns have significantly improved awareness levels among urban customers. However, the study pointed out that rural customers still lack adequate understanding of advanced digital banking services. Chauhan (2020) studied customer perception and awareness towards mobile banking services and concluded that perceived ease of use and trust in banks positively influence awareness. The study emphasized that customers who had prior experience with digital transactions were more comfortable adopting new digital banking services, while first-time users required guidance and training. Patil and Joshi (2021) focused on digital banking awareness in semi-urban areas and observed that although basic awareness of ATM and UPI services was high, customers had limited knowledge about internet banking, online security measures, and grievance redressal mechanisms. The authors suggested that banks should conduct regular awareness and digital literacy programs to bridge this gap. Sharma and Gupta (2021) examined the role of digital literacy in enhancing customer awareness on digital banking services. The study found a strong relationship between digital literacy and effective utilization of banking technology. Customers with higher digital literacy were more aware of safety practices such as not sharing OTPs and identifying fraudulent links. Mehta (2022) studied customer awareness towards digital banking services in public and private sector banks and found that private bank customers exhibited higher awareness levels compared to public sector bank customers. The study attributed this difference to better customer engagement, promotional strategies, and technology support in private banks. Reddy and Kumar (2022) analyzed customer awareness and satisfaction with digital banking services in rural India. The findings revealed that while awareness is gradually increasing due to smartphone penetration, many customers still depend on bank staff for digital transactions. The study emphasized the need for localized language support and hands-on demonstrations. Nair (2023) examined customer awareness of cyber security risks associated with digital banking. The study highlighted that although customers are aware of digital banking services, awareness regarding cyber fraud prevention and grievance reporting mechanisms is inadequate. The author recommended continuous customer education on safe digital practices. Verma and Mishra (2024) studied the impact of digital banking awareness on financial inclusion. The research concluded that increased awareness of digital banking services leads to higher financial inclusion, reduced dependence on cash transactions, and improved access to banking services. The study stressed that awareness programs should target senior citizens and rural populations to ensure inclusive growth.

## 4. Data and Methodology

### Research Design

The present study adopts a descriptive and analytical research design to examine the level of customer awareness towards digital banking services in Davangere District of Karnataka. The study is empirical in nature as it is based on firsthand information collected from bank customers. The design enables systematic collection, analysis, and interpretation of data relating to customer awareness, usage patterns, and perceptions of digital banking.

### Sources of Data

The study is based on both primary and secondary data. Primary data were collected directly from respondents through a structured questionnaire. The questionnaire was designed to gather information on demographic characteristics, awareness of various digital banking services, frequency of usage, perceived benefits, and problems faced by customers. Secondary data were collected from published sources such as Reserve Bank of India (RBI) reports, NPCI publications, bank websites, research journals, magazines, and relevant books to support the theoretical framework and review of literature.

**Population and Sample Size**

The population of the study comprises customers holding bank accounts in public and private sector banks operating in Davangere District. A sample of 120 respondents was selected for the study. The sample included customers from different age groups, educational levels, income categories, and residential areas to ensure representativeness of the population.

**Sampling Technique**

The convenience sampling method was adopted due to time constraints and ease of accessibility of respondents. Customers visiting bank branches and users of digital banking services were approached for data collection. Though the method has certain limitations, it is widely used in exploratory and awareness-based studies.

**Research Instrument**

A structured questionnaire was used as the research instrument for data collection. The questionnaire consisted of multiple sections covering personal details, awareness of digital banking services such as UPI, mobile banking, internet banking, debit/credit cards, security features, and grievance redressal mechanisms. Likert scale statements were included to measure customer perception and awareness levels.

**Period of Study**

The data for the study were collected over a period of three months, during which responses were gathered from customers across different locations within Davangere district.

**Tools and Techniques of Analysis**

The collected data were classified, tabulated, and analyzed using appropriate statistical tools. Percentage analysis was used to study the demographic profile of respondents and the general level of awareness. The Chi-square test was applied to examine the association between customer awareness and selected demographic variables such as age, education, income, and area of residence.

**Table 1: Gender-wise Distribution of Respondents**

| Gender | Number of Respondents | Percentage |
|---|---|---|
| Male | 68 | 56.7 |
| Female | 52 | 43.3 |
| **Total** | **120** | **100** |

**Limitations of the Study**

The study is limited to Davangere district only and hence the findings may not be generalized to other regions. The study is based on a limited sample size and convenience sampling technique, which may involve respondent bias. The accuracy of the study depends on the correctness of the information provided by the respondents.

**Objectives of the Study**

1. To examine the level of customer awareness regarding digital banking services in Davangere District.
2. To analyze the usage pattern of digital banking services among bank customers.

3. To study the relationship between demographic factors and customer awareness on digital banking.
4. To identify the major problems faced by customers while using digital banking services.
5. To suggest suitable measures to enhance customer awareness and safe adoption of digital banking services.

**Hypotheses**

$H_{01}$: There is no significant association between age and awareness of digital banking services.
$H_{02}$: There is no significant association between education and awareness of digital banking services.
$H_{03}$: There is no significant association between income level and digital banking usage.
$H_{04}$: There is no significant association between locality (urban/rural) and awareness of digital banking.

**Specification of The Model**

The Chi-square test is used to test the hypotheses. The test compares observed and expected frequencies to determine whether a significant association exists between demographic variables and customer awareness. The test statistic follows a chi-square distribution under the null hypothesis.

**6. Analysis and Results**

The data collected from 120 respondents were analyzed using percentage analysis and the Chi-square test to assess customer awareness on digital banking services in Davangere District. The analysis focuses on demographic profile, level of awareness, usage pattern, and association between awareness and selected demographic variables.

**Table 2: Demographic Profile of Respondents**

| **Particulars** | **Category** | **No. of Respondents** | **Percentage** |
|---|---|---|---|
| **Gender** | Male | 68 | 56.7 |
| | Female | 52 | 43.3 |
| **Age Group** | Below 25 | 22 | 18.3 |
| | 25–40 | 48 | 40.0 |
| | 41–55 | 32 | 26.7 |
| | Above 55 | 18 | 15.0 |
| **Education** | SSLC & Below | 26 | 21.7 |
| | PUC | 34 | 28.3 |
| | Graduate | 42 | 35.0 |
| | Post Graduate | 18 | 15.0 |

**Inference:**

Majority of the respondents belong to the 25–40 age group and are graduates, indicating higher potential for digital banking awareness.

**Table 3: Awareness of Digital Banking Services**

| **Digital Banking Service** | **Aware (No.)** | **Aware (%)** |
|---|---|---|
| ATM Services | 120 | 100 |
| UPI Payments | 114 | 95.0 |

| | | |
|---|---|---|
| Mobile Banking Apps | 98 | 81.7 |
| Internet Banking | 76 | 63.3 |
| Debit/Credit Cards | 102 | 85.0 |
| SMS/Email Alerts | 88 | 73.3 |
| Online Bill Payments | 84 | 70.0 |
| Grievance Redressal System | 54 | 45.0 |

**Inference:**

Awareness is highest for ATM and UPI services, while awareness of grievance redressal mechanisms is relatively low.

**Table 4: Frequency of Usage of Digital Banking Services**

| **Frequency** | **Respondents** | **Percentage** |
|---|---|---|
| Daily | 46 | 38.3 |
| Weekly | 34 | 28.3 |
| Monthly | 22 | 18.3 |
| Rarely | 18 | 15.0 |
| **Total** | **120** | **100** |

**Inference:**

More than two-thirds of respondents use digital banking either daily or weekly, indicating growing acceptance.

**Table 5: Awareness Level Index (Likert Scale)**

(5 = Strongly Aware, 1 = Not Aware)

| **Statement** | **Mean Score** |
|---|---|
| Awareness of UPI usage | 4.52 |
| Awareness of mobile banking apps | 4.08 |
| Awareness of internet banking | 3.62 |
| Awareness of OTP & security features | 3.94 |
| Awareness of fraud reporting | 3.21 |
| **Overall Awareness Mean** | **3.89** |

**Inference:**

The overall awareness level is moderately high, but security reporting awareness needs improvement.

**Table 6: Problems Faced in Using Digital Banking**

| **Problems** | **Respondents** | **Percentage** |
|---|---|---|
| Fear of fraud | 48 | 40.0 |
| Poor internet connectivity | 36 | 30.0 |
| Lack of technical knowledge | 22 | 18.3 |
| Failed transactions | 14 | 11.7 |
| **Total** | **120** | **100** |

**Inference:**

Fear of fraud is the most significant challenge faced by customers.

**Chi-Square Analysis**

**Table 7: Association between Age and Awareness Level**

| Age Group | High Awareness | Low Awareness | Total |
|---|---|---|---|
| Below 40 | 54 | 16 | 70 |
| Above 40 | 28 | 22 | 50 |
| **Total** | **82** | **38** | **120** |

- $\chi^2$ calculated = **6.87**
- $\chi^2$ table (df = 1, @5%) = **3.84**

**Result:** Since calculated value > table value, **$H_0$ is rejected**.
There is a significant association between age and awareness level.

**Table 8: Association between Education and Awareness Level**

| Education | High Awareness | Low Awareness | Total |
|---|---|---|---|
| Up to PUC | 32 | 28 | 60 |
| Graduate & Above | 50 | 10 | 60 |
| **Total** | **82** | **38** | **120** |

- $\chi^2$ calculated = **12.44**
- $\chi^2$ table (df = 1, @5%) = **3.84**

**Result: $H_0$ is rejected**.
Education significantly influences customer awareness on digital banking.

**Overall Findings**

- 95% of respondents are aware of UPI services.
- Only 45% are aware of grievance redressal mechanisms.
- Younger and more educated customers show significantly higher awareness.
- Fear of fraud and internet issues remain major barriers.

## 7. Conclusion

The present study examined the level of customer awareness regarding digital banking services in Davangere District, Karnataka. The findings reveal that while customers exhibit high awareness and usage of basic digital banking services such as ATM facilities, UPI payments, and mobile banking applications, awareness of advanced services and security-related aspects remains moderate. Demographic factors such as age and educational qualification significantly influence the level of awareness and adoption of digital banking services. Younger and more educated customers demonstrate higher confidence and familiarity with digital platforms compared to older age groups.

The study also highlights that fear of cyber fraud, inadequate knowledge of grievance redressal mechanisms, and internet connectivity issues are major challenges faced by customers. Despite these concerns, the overall acceptance of digital banking is encouraging, indicating a positive shift towards technology-driven banking practices. The results suggest that banks and policymakers must intensify digital literacy initiatives, conduct customer awareness programs in local languages, and strengthen trust by educating customers on safe digital banking practices. Enhancing customer awareness will not only improve digital banking adoption but also contribute to financial inclusion and the long-term sustainability of the digital financial ecosystem.

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