**Shifting Consumer Attitudes towards Online Banking: Evidence from Rural Kerala**

### ***ABSTRACT:*** The spread of e-banking has brought notable changes to the financial sector by improving convenience, reach, and reducing service costs. However, customer perception in rural settings remains an area that requires deeper understanding. This study looks into the factors influencing the attitude of customers towards online banking in Cherthala Taluk of Alappuzha district, Kerala. Primary data was gathered from 100 respondents through stratified random sampling, supported by secondary sources. Two-way ANOVA was used to assess how demographic factors such as age, education, income, and occupation affect e-banking usage. The findings show that while basic services like fund transfer and bill payment are commonly used, concerns regarding security, lack of technical skills, and limited awareness continue to act as barriers. A visible shift towards mobile banking and UPI platforms is also observed. The study suggests the need for better digital literacy, enhanced security measures, and more user-friendly platforms to promote wider usage.

*Keywords: E-banking, consumer perception, online banking, rural banking, digital*

*transactions, financial inclusion, UPI*

# **INTRODUCTION**

E-banking has revolutionized the financial sector by providing cost-effective and convenient digital transaction channels, including internet and mobile banking. As an integral component of e-finance, it enhances accessibility and efficiency in financial services, enabling seamless operations for both retail and corporate clients. Services such as electronic payments, fund transfers, lending, and account management offer users increased flexibility and convenience. Despite these advantages, e-banking introduces regulatory challenges and security concerns, necessitating stringent oversight to maintain financial stability. Nonetheless, its continuous growth underscores its escalating importance in contemporary banking.

Financial institutions actively assess customer perceptions to improve service quality and address issues like fraud and technical difficulties. Secure online platforms facilitate a variety of transactions, including bill payments, fund transfers, and digital account management, thereby enhancing operational efficiency and customer satisfaction. Features such as ordering cheque books and reporting lost cards bolster customer engagement and trust. Consequently, e-banking has become a cornerstone of the financial industry, integrating technological advancements with user-centric solutions to elevate banking experiences.

**STATEMENT OF THE PROBLEM**

Despite the rapid growth of e-banking, its adoption in rural areas remains limited due to various barriers, including security concerns, lack of digital literacy, and technical challenges. While previous studies have primarily focused on the adoption of online banking, limited research has examined the factors contributing to its underutilization. This study aims to bridge this gap by analyzing consumer perceptions of e-banking in Cherthala Taluk, a densely populated rural region in coastal Kerala's Alappuzha district, with a focus on identifying key drivers and barriers to adoption. The study investigates how demographic factors such as age, education, income, and occupation influence online banking usage. It also explores consumer preferences for specific banking services, such as fund transfers, bill payments, and mobile banking, while assessing challenges like security risks, technical issues, and customer support deficiencies. By understanding these factors, the research aims to provide insights into enhancing digital banking accessibility, improving security measures, and increasing consumer confidence in online banking services.

**OBJECTIVE OF THE STUDY**

The general objective is to study the consumers’ perceptions towards online banking in a progressing regional economy like India. More specifically, the present study focussed on the following objectives.

1. To identify the factors that influence the adoption of online banking
2. To analyse the consumers perceptions and satisfaction with online banking services
3. To examine the facilities offered and challenges faced by users
4. To recommend policy measures for strengthening e-banking systems

**RESEARCH METHODOLOGY**

This study is based on both primary and secondary data. Cherthala Taluk in Alappuzha district was selected for its high rural banking penetration and internet access, making it suitable for examining early adoption of e-banking. A stratified random sample of 100 respondents was selected, and data were collected via structured questionnaires using Google Forms. Secondary data were sourced from journals, banking publications, and government reports. Data were analyzed using statistical tools, including percentages and two-way ANOVA, to examine the relationship between demographic factors and banking preferences.

**ANOVA Explanation and Assumptions**

ANOVA (Analysis of Variance) is a commonly used statistical method to check whether there are significant differences between the means of two or more groups. It does this by comparing the variation within the groups to the variation between the groups. A one-way ANOVA considers only one independent variable, whereas a two-way ANOVA involves two independent variables.

In this study, before applying the two-way ANOVA, the required assumptions were carefully checked. The key assumptions include normal distribution of the population, equal variance across groups (homogeneity), random selection of samples, and independence of observations. Normality was assessed using histograms and Q-Q plots, which showed that the data was approximately normal. Homogeneity of variance was also tested and the results were acceptable. The data was collected independently from each respondent, thereby meeting the assumption of independence.

# **REVIEW OF LITERATURE**

**Marimon, F., Petnji Yaya, L. H., & Casadesus, M. (2011)** examined the influence of service recovery on customer loyalty within Spain's electronic banking sector. Their findings indicate that elements of the revised E-S-QUAL framework, the multi-dimensional scale used to measure electronic service quality, significantly contribute to enhancing customer satisfaction and loyalty, offering key insights into the determinants of positive customer perceptions in online banking environments. This study provides a foundational framework for measuring e-service quality and can be adapted for comparative studies across different cultural or national contexts.

**Chawla, S., & Sehgal, R. (2012)** conducted an empirical investigation into customer awareness and satisfaction related to internet banking. The study underscores the role of demographic variables. particularly age and gender, in shaping customer experiences and preferences in digital banking adoption. Its relevance lies in highlighting the need for banks to tailor their communication and user interfaces to suit diverse customer segments.

**Bashir, I., & Madhavaiah, C. (2015)** explored consumer attitudes and behavioral intentions concerning internet banking adoption in the Indian context. The research identifies trust, security, and ease of use as major factors influencing users’ willingness to adopt online banking, aligning with broader themes in consumer perception research. The study's insights are particularly useful for designing strategies to increase digital banking adoption among hesitant or first-time users.

**Sivathanu, B. (2019)** analyzed the uptake of digital payment systems following India’s demonetization. The study highlights how trust, security, and perceived technological competence affect customer adoption, offering a comprehensive view of digital banking behavior during policy-induced change. It also sheds light on the long-term shifts in consumer behavior triggered by financial reforms and digital initiatives.

**Philip, P. (2020)** investigated customer perceptions of internet banking services provided by the State Bank of India. The research emphasizes operational efficiency and cost-effectiveness as crucial aspects for ensuring customer retention and satisfaction in public sector banking. This work underscores the competitive pressure on public banks to match private sector standards in service quality and innovation.

**Jena, R. (2023)** studied the behavioural intention of senior citizens in central India towards adopting e-banking services, especially in the post-COVID-19 period. Using an extended UTAUT model and PLS-SEM analysis on data collected from 456 respondents, the study revealed that performance expectancy, trust, and self-efficacy were strong predictors of online banking adoption, while perceived risk remained a barrier. The study is particularly relevant as it focuses on a vulnerable yet increasingly active demographic in the digital banking space, offering insights into adoption challenges in semi-urban and rural settings.

**Prasad, S., Jain, Y. S., Surana, P., Poddar, D., & Kankariya, J. (2024)** explored digital payment behaviour in rural India. The study examined user awareness, accessibility, and confidence in using mobile banking and UPI platforms. Findings highlighted low levels of digital literacy and infrastructural limitations as significant barriers, while mobile penetration and targeted financial literacy initiatives emerged as enablers. This study is significant in understanding how rural households transition towards digital banking within a constrained environment.

**Mwakera, Riwo-Abudho, and Abudho (2024)** examined the impact of e-banking on the financial performance of commercial banks in Kenya. Their study found that the adoption of e-banking services significantly improved operational efficiency, customer reach, and overall profitability. These findings support the broader view that digital banking not only enhances service delivery but also strengthens financial outcomes—a perspective relevant to understanding similar trends in rural India.

**Naidu, M. K., & Dasari, R. B. (2025)** investigated the impact of digital banking tools on financial inclusion in rural Andhra Pradesh. By applying TAM and UTAUT frameworks, the study found that trust, digital infrastructure, and user-friendliness of banking applications had a major influence on adoption. Government-led programmes like PMJDY and Direct Benefit Transfer (DBT) schemes also played a key role in encouraging first-time digital users. This research adds value to the discourse on how policy interventions intersect with user perception in rural financial ecosystems.

These studies collectively provide a comprehensive understanding of the factors influencing customer perceptions of online banking, including satisfaction, loyalty, demographic factors, and the technological and economic context in India and globally.

**THEORETICAL BACKGROUND**

The theoretical framework for understanding customer perception of online banking combines various elements derived from established models and studies. Central to this framework is the Technology Acceptance Model (TAM), highlighting perceived usefulness and ease of use as critical determinants of adoption. Service quality dimensions, such as reliability, responsiveness, efficiency, and privacy, significantly influence customer satisfaction and loyalty. Demographic factors, including age, gender, education, and income, shape perceptions and preferences for online banking. Additionally, perceived risk, trust, and website usability emerge as key factors that can either enhance or hinder customer acceptance. This integrated approach offers a comprehensive perspective on the factors shaping customer perceptions and their willingness to adopt online banking services.

### **Online Banking Methods and Procedures in India**

Online banking has transformed India's financial sector, enabling seamless digital transactions across various demographics. Its rapid adoption is driven by technological advancements and government initiatives like Digital India (RBI, 2022). This section outlines the methods, services, and features of online banking in India, emphasizing their impact on financial inclusion and economic growth.

#### **Services Offered by Online Banking**

Online banking caters to diverse needs through the following services:

1. E-Ticketing: Facilitates electronic travel bookings with unique confirmation codes, streamlining check-ins (Indian Railways, 2023).
2. Online Tax Payments: Platforms like FedNet simplify tax compliance by enabling the payment of various taxes digitally, ensuring accuracy and timeliness (RBI, 2022).
3. Fund Transfers: Secure mechanisms, such as multi-factor authentication, support intra- and inter-account fund transfers.

**UPI: Digital payments for masses**

The Unified Payments Interface (UPI), launched in 2016, is a real-time, interoperable payment system built on India’s Immediate Payment Service (IMPS) infrastructure. Developed by the National Payments Corporation of India (NPCI) and regulated by the RBI, UPI allows 24/7 money transfers through mobile devices. Initially launched with 35 banks, the number of participating banks grew to 382 by 2022. The market share of UPI increased from 2% in 2016-17 to 52% in 2021-22, with over 300 million unique users and 50 million merchants onboard by mid-2022. Despite this growth, UPI transactions account for only about 3.3% of the digital payments market, with NEFT and RTGS dominating high-value transactions.

**Table 1: Growth of Online Banking Coverage and Services in India**

| Financial Year | No. of Banks Live on UPI | No. of Third-Party App Providers (TPAPs) | PPI Apps  (Prepaid Payment Instrument Apps) |
| --- | --- | --- | --- |
| 2016-17 | 35 | NA | NA |
| 2017-18 | 67 | NA | NA |
| 2018-19 | 129 | NA | NA |
| 2019-20 | 143 | 19 | NA |
| 2020-21 | 207 | 21 | NA |
| 2021-22 | 282 | 22 | NA |
| 2022-23 | 382 | 23 | 5 |

*Source: National Payments Corporation of India (NPCI)*

**PERCEPTION TOWARDS ONLINE BANKING – AN ANALYSIS**

The study was conducted in Cherthala Taluk, Alappuzha district in the State of Kerala. Several statistical tools and techniques were used to analyse consumer behaviour. Both quantitative and qualitative data are present in the gathered information. For this reason, the study's data analysis includes both quantitative and qualitative methods.

**Results and Discussion**

**A. User Preferences for Online Banking Services**

The data outlines the popularity of various online banking services based on the number of respondents and their preferences.

**Table 2: User Preferences in Online Banking**

|  |  |
| --- | --- |
| **Services available** | **Percentage of Respondents** |
| Fund transfer | 89.0 |
| Bill payments | 64.0 |
| Account statements | 18.0 |
| Online shopping | 43.0 |
| Others | 4.0 |

The findings indicate that fund transfers are the most frequently used service, with 89% of respondents reporting regular usage. Bill payments follow closely at 64%, while online shopping is moderately popular at 43%. Services such as account statement viewing (18%) and others (4%) are used less frequently. This suggests that users primarily engage with services offering immediate financial utility rather than informational or auxiliary features.

1. **Influence of Socio-demographic factors on Service Preferences for Online Banking Services**

Digital banking adoption is driven by age, education, and income. Younger users favor online shopping, while older demographics focus on essential services like fund transfers and bill payments. Educational qualifications enhance service utilization, while occupation and income shape service preferences. Banks should target segments with customized offerings to maximize engagement

This study employs a Two-Way ANOVA to examine the relationship between service preferences and demographic factors. The analysis aims to investigate how various services, such as Fund Transfer, Bill Payments, Account Statements, Online Shopping, and Others, are influenced by demographic characteristics like Age, Academic Qualification, Occupation, and Income.

The primary objectives of this analysis are:

1. To identify significant differences in service preferences across different demographic groups
2. To detect variations in preferences among the types of services

### **Table 3: Age and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age Group** | **Fund Transfer (%)** | **Bill Payments (%)** | **Account Statements (%)** | **Online Shopping (%)** | **Others (%)** | **Average (%)** |
| Up to 18 | 75 | 50 | 0 | 25 | 0 | 38 |
| 18-25 | 80 | 54 | 14 | 57 | 9 | 51 |
| 26-30 | 79 | 68 | 5 | 42 | 0 | 49 |
| 31-40 | 82 | 86 | 18 | 41 | 0 | 57 |
| Above 40 | 100 | 70 | 45 | 35 | 0 | 63 |
| **Average** | **83** | **66** | **17** | **40** | **2** | -- |

The data reveals varying online banking habits across age groups. Fund transfers are widely used, peaking at 100% among those above 40, while bill payments are highest among the 31-40 group (86%). Younger users (up to 18) have the lowest engagement in most categories, especially account statements (0%). Online shopping is most popular among the 18-25 group (57%), but declines with age. Checking account statements is more frequent among older users, with 45% usage above 40. Overall, fund transfers and bill payments dominate, while online shopping and account statements show varied engagement across different age groups.

The null hypothesis is formulated as

**H11:**There is no significant difference in the means of the dependent variable (preferences) across the types of services.  
H12: There is no significant difference in the means of the dependent variable across the age categories

**Table 4: ANOVA result on age and baking activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Rows | 1247.44 | 4 | 311.86 | 2.839996 | 0.059113 | 3.006917 |
| Columns | 13425.44 | 4 | 3356.36 | 30.56516 | 2.6e-07 | 3.006917 |
| Error | 1756.96 | 16 | 109.81 |  |  |  |
| Total | 16429.84 | 24 |  |  |  |  |

The two-way ANOVA results show that the Columns factor (Banking Activity) has a significant impact on the dependent variable (F = 30.57, P < 0.0001), indicating substantial differences among banking activities. However, the Rows factor (Age Group) is not statistically significant (F = 2.84, P = 0.059), as its P-value slightly exceeds the 0.05, the significance level. This suggests that while banking activities vary significantly, there is no considerable difference in these activities across different age groups.

### **Table 5: Academic Qualification and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Academic Level** | **Fund Transfer**  **(%)** | **Bill Payments**  **(%)** | **Account Statements**  **(%)** | **Online Shopping**  **(%)** | **Others**  **(%)** | **Average (%)** |
| High School | 100 | 58 | 33 | 17 | 0 | 42 |
| Trade/Vocational/ Technical | 100 | 79 | 11 | 47 | 0 | 47 |
| Bachelor’s Degree | 79 | 69 | 14 | 38 | 3 | 41 |
| Master’s Degree | 85 | 62 | 23 | 69 | 8 | 49 |
| Professional Degree | 90 | 70 | 20 | 40 | 10 | 46 |
| Doctorate | 100 | 50 | 0 | 25 | 0 | 35 |
| **Average** | **92** | **65** | **17** | **39** | **4** | -- |

Higher education levels correlate with diverse banking activity. Trade/vocational and professional degree holders demonstrate notable engagement (averages: 47% and 46%), while master’s degree holders lead in online shopping (69%). Surprisingly, doctorate holders exhibit the least overall usage (35%), potentially due to lower transactional needs. The average usage (49%) for master’s degree holders highlights their balanced approach to using various services.

The null hypothesis is formulated as

**H21:**There is no significant difference in the means of the dependent variable (preferences) across the types of services.  
H22: There is no significant difference in the means of the dependent variable across the academic qualification categories

**Table 6: ANOVA result on Academic Qualification and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Source of Variation* | *SS* | *Df* | *MS* | *F* | *P-value* | *F crit* |
| Rows | 426.96 | 4 | 106.74 | 1.029663 | 0.422087 | 3.006917 |
| Columns | 11893.76 | 4 | 2973.44 | 28.68316 | 4.04e-07 | 3.006917 |
| Error | 1658.64 | 16 | 103.665 |  |  |  |
| Total | 13979.36 | 24 |  |  |  |  |

The two-way ANOVA results indicate that the Columns factor (Banking Activity) has a statistically significant impact on the dependent variable (F = 28.68, P < 0.0001), showing notable differences among banking activities. Conversely, the Rows factor (Academic qualification) is not significant (F = 1.03, P = 0.422), as its P-value is well above the 0.05, the significance level. This implies that while banking activities differ significantly, there is no substantial variation in these activities across different academic qualifications.

### **Table 7: Occupation and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Occupation** | **Fund Transfer (%)** | **Bill Payments (%)** | **Account Statements (%)** | **Online Shopping (%)** | **Others (%)** | **Average (%)** |
| Student | 75 | 53 | 9 | 59 | 6 | 41 |
| Government Service | 100 | 75 | 20 | 35 | 0 | 46 |
| Private Sector | 93 | 75 | 18 | 25 | 4 | 43 |
| Business | 90 | 60 | 30 | 40 | 0 | 44 |
| Professional Practice | 89 | 67 | 22 | 44 | 0 | 44 |
| Retired | 100 | 0 | 100 | 0 | 0 | 40 |
| **Average** | **91** | **55** | **33** | **34** | **2** | -- |

Service-oriented occupations like government employees (46%) and private sector workers (43%) focus on fund transfers (100% and 93%), aligning with their transactional needs. Students prioritize online shopping (59%), reflecting their lifestyle preferences. Interestingly, retired individuals show selective usage, with a strong focus on account statements, indicating their need for financial monitoring. Professional practitioners and business owners use banking facilities moderately, balancing multiple services.

The null hypothesis is formulated as

**H31:**There is no significant difference in the means of the dependent variable (preferences) across the types of services.  
H32: There is no significant difference in the means of the dependent variable across the occupation categories

**Table 8: ANOVA result on Occupation and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Rows | 138.5667 | 5 | 27.71333 | 0.046541 | 0.998505 | 2.71089 |
| Columns | 26119.13 | 4 | 6529.783 | 10.96589 | 7.14e-05 | 2.866081 |
| Error | 11909.27 | 20 | 595.4633 |  |  |  |
| Total | 38166.97 | 29 |  |  |  |  |

The two-way ANOVA results indicate that the Columns factor (Banking Activity) has a significant effect on the dependent variable (F = 10.97, P < 0.0001), showing notable differences among different banking activities. However, the Rows factor (Occupation) is not statistically significant (F = 0.047, P = 0.999), as its P-value is much higher than 0.05. This suggests that while banking activities vary significantly, occupation does not have a significant impact on how individuals engage in these activities.

### **Table 9: Annual Income and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Income Range (₹)** | **Fund Transfer (%)** | **Bill Payments (%)** | **Account Statements (%)** | **Online Shopping (%)** | **Others (%)** | **Average (%)** |
| Up to 1.2 Lakh | 81 | 63 | 8 | 44 | 6 | 40 |
| 1.2-2.4 Lakh | 96 | 63 | 26 | 41 | 0 | 53 |
| 2.4-4.8 Lakh | 100 | 71 | 24 | 43 | 0 | 48 |
| Above 4.8 Lakh | 75 | 75 | 50 | 25 | 0 | 56 |
| **Average** | **88** | **68** | **27** | **38** | **2** | -- |

Higher-income groups (above ₹4.8 lakh) show the most diverse usage (average: 56%), with significant engagement in account statements (50%), reflecting their financial tracking needs. Lower-income groups primarily utilize fund transfers (81%) and have limited activity in other areas. Middle-income groups demonstrate balanced usage across services like bill payments (71%) and fund transfers (96%), reflecting their need for digital convenience while managing household expenses.

The null hypothesis is formulated as

**H41:**There is no significant difference in the means of the dependent variable (preferences) across the types of services.  
H42: There is no significant difference in the means of the dependent variable across the income categories

### **Table 10: ANOVA result on Annual Income and Banking Activity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Source of Variation* | *SS* | *df* | *MS* | *F* | *P-value* | *F crit* |
| Rows | 135.75 | 3 | 45.25 | 0.347187 | 0.791875 | 3.490295 |
| Columns | 18555.2 | 4 | 4638.8 | 35.59182 | 1.44e-06 | 3.259167 |
| Error | 1564 | 12 | 130.3333 |  |  |  |
| Total | 20254.95 | 19 |  |  |  |  |

The ANOVA results suggest that the row factor, which could represent annual income levels, does not have a statistically significant effect on the response variable (F = 0.347, P-value = 0.792). Since the P-value is much greater than the typical significance threshold (0.05), we fail to reject the null hypothesis, indicating that variations in annual income do not meaningfully impact the measured outcome. In contrast, the column factor does have a significant effect, suggesting that other categorical variables (such as different groups or conditions) play a more influential role in determining the response variable.

The two-way ANOVA results indicate that banking activity significantly impacts user engagement, as shown by highly significant F-values (ranging from 10.97 to 30.57) and P-values below 0.0001. This suggests notable differences among various banking activities. However, demographic factors such as age group, academic qualification, occupation, and annual income do not show a statistically significant influence on banking behavior, as their P-values exceed the 0.05 threshold.

These findings imply that while individuals engage in banking activities differently, these variations are primarily driven by the type of activity rather than personal attributes like age, education, occupation, or income level. This suggests that banks should focus on optimizing services based on activity type rather than demographic segmentation.

1. **User preferences in online banking service**

### **Table 11: User preferences of online banking services**

|  |  |  |  |
| --- | --- | --- | --- |
| Most used banks | Percentage | Facilities | Percentage |
| SBI | 51.0 | ATM | 30.0 |
| FEDERAL BANK | 13.0 | NET banking | 20.0 |
| ICICI BANK | 11.0 | Telephone banking | 5.0 |
| AXIS BANK | 7.0 | Mobile banking | 45.0 |
| HDFC BANK | 6.0 | SMS Banking | 0.0 |

The data reveals that **SBI** is the most preferred bank, accounting for 51% of usage, reflecting its widespread presence across India. Other banks, such as **Federal Bank (13%)**, **ICICI Bank (11%)**, and **Axis Bank (7%)**, have much smaller user bases, possibly due to their focus on specific customer segments or urban markets.. This trend highlights SBI's dominance and the competitive gap among other banks in reaching broader demographics.

In terms of banking facilities, **mobile banking (45%)** is the most used, showcasing a growing preference for digital convenience, especially among younger users. **ATMs (30%)** remain essential, indicating the continued relevance of cash transactions. **Net banking (20%)** follows as a favored digital option, while traditional methods like **telephone banking** and **SMS banking** are rapidly losing relevance. These trends underline the need for banks to focus on mobile-first strategies and digital innovation to meet the evolving preferences of modern customers.

1. **User Engagement and Satisfaction in Digital Banking Services**

The data reveals strong user satisfaction and engagement with the online banking services in the study area.

**Table 12: Engagement and Satisfaction in Digital Banking**

|  |  |  |
| --- | --- | --- |
| Aspect | Category | Percentage of users |
| Satisfaction level | Satisfied | 79.0 |
| Not satisfied | 1.0 |
| Neutral | 20.0 |
| Device used | Mobile phone | 99.0 |
| Computer/ Laptop | 1.0 |
| Frequency of usage | Daily | 61.0 |
| Weekly | 33.0 |
| Rarely | 6.0 |
| Online shopping purchases | Frequently | 90.0 |
| Rarely | 10.0 |
| Period of usage | Less than 1 year | 18.0 |
| More than 1 year | 82.0 |
| Recommendation | Positive | 84.0 |
| Negative | 1.0 |
| Neutral | 15.0 |

The survey results indicate high levels of satisfaction among rural users, with 79% reporting positive experiences. Mobile phones are the dominant medium, used by 99% of respondents to access banking services, emphasizing the centrality of mobile optimization. Daily usage is reported by 61%, and weekly usage by 33%, reflecting strong user engagement. Online shopping is frequent for 90% of respondents, further pointing to digital familiarity.

Additionally, 82% of users have been using online banking for more than one year, indicating customer retention and platform reliability. The fact that 84% of respondents would recommend these services reflects growing trust in digital financial tools among rural populations.

1. **Trends and Challenges in Digital Banking**

**Table 13: Trends, Challenges and Policy Suggestions**

|  |  |  |
| --- | --- | --- |
| Aspect | Category | Percentage of users |
| UPI apps/ NetBanking/ Other channels | Gpay | 55.0 |
| Phonepe | 24.0 |
| Paytm | 14.0 |
| Net Banking | 6.0 |
| Others | 1.0 |
| Challenges Faced by Users in Digital Banking | Technical issues | 59.0 |
| Security concerns | 35.0 |
| Poor customer service | 3.0 |
| Complex processes | 2.0 |
| Others | 1.0 |
| Reasons for Using Digital Banking | 24-hour access | 30.0 |
| Easy to use | 29.0 |
| To save time | 27.0 |
| Cost effective | 7.0 |
| Convenience | 7.0 |
| Areas for Improvement in Digital Banking Services | Enhanced security measures | 32.0 |
| Better user interface | 32.0 |
| 24/7 customer support | 29.0 |
| More features | 6.0 |
| Others | 1.0 |

The study identifies key trends in platform usage, with UPI-based applications dominating. Google Pay, PhonePe, and Paytm are the most preferred platforms, while traditional net banking maintains a limited presence.

Major challenges faced by users include technical issues (59%) and security concerns (35%). These are followed by minor issues such as poor customer service and complex processes. Users adopt digital banking mainly for 24-hour access, ease of use, and time-saving benefits. Areas suggested for improvement include stronger security protocols, better user interfaces, and around-the-clock customer support.

These findings emphasize the need for banks to continually adapt their digital platforms to user expectations and to build trust by addressing performance and security-related concerns.

**SUGGESTIONS**

Based on the study’s insights, the following policy suggestions are proposed:The bank should make the e-channel (bank website) more accessible, convenient and secure from information loss.

* Banks should improve the accessibility, user-friendliness, and security of their digital platforms.
* Transparent communication regarding service charges, interest rates, and penalties should be ensured to build customer trust.
* Awareness campaigns should be organized to educate rural customers about the benefits and safety of online banking.
* Continuous technological upgrades should be implemented to enhance security and simplify user interfaces.
* Banks should provide responsive and round-the-clock technical support to address user complaints effectively.

**CONCLUSION**

The study concludes that rural consumers have a generally positive perception of online banking, particularly in terms of convenience and efficiency. However, barriers such as limited awareness, technical difficulties, and security concerns continue to hinder full adoption. Demographic factors were not found to significantly affect user behavior, indicating that service-related factors play a more crucial role.To strengthen digital banking adoption in rural areas, banks must invest in user education, enhance platform reliability, and foster trust through secure and responsive service delivery. With appropriate policy support and technological intervention, digital banking can become a key enabler of financial inclusion in rural India.

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