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Challenges and Implementation Strategies on Enhancing Digital Proficiency in Payment Bank Process

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ABSTRACT

This study investigates the challenges and strategies involved in enhancing digital proficiency among customers and stakeholders of Payments Bank. With the rise of digital banking services, it is essential for financial institutions to bridge the digital divide, particularly in semi-urban and rural areas. The research identifies key barriers such as lack of awareness, limited digital infrastructure, and technology accessibility. Using descriptive statistics, correlation analysis, and chi-square tests, the study explores user satisfaction, perception of service efficiency, and the impact of demographic factors. The findings emphasize the importance of digital literacy programs, infrastructure development, and service accessibility to drive financial inclusion and competitiveness. Recommendations are provided to support the bank's efforts in creating a more digitally inclusive environment.

Keywords: Digital Proficiency, Financial Inclusion, Customer Awareness, Digital Services, Rural Banking, Public Sector Banking

I - Introduction to the Topic

Introduction

The evolution of the banking industry in India has witnessed a significant shift with the integration of digital technology into service delivery, particularly in efforts aimed at achieving financial inclusion. Payments Bank, established under the aegis of the Department of Posts, represents a pivotal step toward bridging the urban-rural digital divide by leveraging the extensive postal network. With the objective of providing accessible, affordable, and digitally-enabled banking services, Payment bank holds immense potential to transform rural banking. However, despite its strategic positioning, the effective implementation of digital services remains constrained by challenges such as limited digital literacy, inadequate technological infrastructure, and varying levels of customer adaptability, especially in rural districts.

Objectives of the Study

1. To identify the key challenges faced by customers in adopting digital services offered by payment banks.
2. To assess the accessibility and user-friendliness of payment bank digital services across different demographic groups.
3. To evaluate customer perceptions of market competition and its influence on payment bank digital service quality and innovation.
4. To examine the cost-efficiency of payment bank digital services and their impact on operational savings and customer benefits.
5. To analyze the effectiveness of payment bank digital tools in improving transaction speed, reducing errors, and ensuring real-time updates.
6. To determine the overall satisfaction level of customers regarding payment bank digital service experience, including security, clarity of information, and ease of use.

Scope of the Study

The present study focuses on evaluating the digital proficiency of customers and employees associated with Payments Bank. It covers key dimensions such as accessibility, competition, cost efficiency, digital service performance, and customer experience. The research is limited to understanding the perceptions, satisfaction levels, and challenges faced by payment bank users while accessing digital services like mobile apps, online banking, and real-time updates. The study also explores how demographic variables such as age, gender, education, and occupation influence the adoption and usability of digital banking services. While geographically confined to Karur, the outcomes and recommendations of this research may serve as a reference for

similar districts and assist IPPB in improving its digital outreach, training strategies, and technological infrastructure to promote digital inclusion and customer satisfaction.

Need for the Study

1. To understand the current level of digital proficiency among payment bank customers
2. To identify key challenges faced by customers in accessing and using digital banking services.
3. To evaluate the effectiveness of payment bank digital initiatives in enhancing customer satisfaction.
4. To support payment bank in improving digital literacy and service outreach, especially in rural areas.
5. To provide actionable insights for policymakers and banking stakeholders to bridge the digital divide.

Limitations

1. Data was collected from a specific sample size, which may not represent the entire customer base of payment bank.
2. Respondents' answers may be influenced by personal bias or limited knowledge of digital banking.
3. Time constraints restricted in-depth interviews and broader data collection.
4. The study focuses mainly on customer perspectives, with limited input from payment bank officials or employees.

II - Review of Literature

Kumar, R. & Iyer, V. (2025) conducted a study titled **"Enhancing Customer Experience through Digital Innovation in IPPB"**, published in the Journal of Financial Inclusion and Technology. The study involved 220 respondents and applied regression and correlation analysis. The objective was to analyze the relationship between digital innovation and customer experience in payment bank. The findings revealed that personalized digital services, real-time query resolution, and AI-powered chat support significantly improved customer satisfaction. However, frequent system downtimes and limited customization options were identified as challenges. The authors concluded that regular software upgrades, customer-centric digital solutions, and proactive issue resolution are essential for enhancing customer experience through digital innovation in payment bank.

Singh, P. & Mehta, R. (2024) conducted a study titled **"Impact of AI on Digital Efficiency in Postal Banking"**, published in the Journal of Financial Technology. The study employed a sample of 205 respondents and applied multiple regression and correlation analysis. The objective was to evaluate the impact of AI-driven solutions on digital efficiency in postal banks, including payment bank. The findings revealed that AI-powered customer support, predictive fraud detection, and real-time data analytics significantly enhanced service efficiency. The study concluded that continuous AI integration, regular system monitoring, and customer-centric AI solutions are essential for boosting digital efficiency in postal banks.

Kumar, M. & Joshi, A. (2023) conducted a study titled **"Digital Financial Inclusion through Postal Banks: The payment bank Experience",** published in the Journal of Financial Inclusion and Technology. The study employed a quantitative survey method with a sample of 230 respondents and applied chi-square and ANOVA tests. The objective was to explore financial inclusion strategies through digital transformation in IPPB. The findings revealed that user-friendly mobile apps, streamlined digital onboarding processes, and multilingual customer support significantly improved financial accessibility. The authors identified inadequate digital literacy, lack of awareness about digital services, and poor network connectivity in rural areas as key obstacles. The study concluded that continuous customer awareness programs, technology-driven service delivery, and frequent software enhancements significantly enhance financial inclusion in IPPB.

Verma, A. (2022) conducted a study titled ***"Technological Transformation in Indian Postal Services: A Case of IPPB"***, published in the Journal of Banking and Postal Studies. The study involved a sample of 120 respondents and applied percentage analysis and chi-square tests to evaluate the data. The objective was to investigate the technological transformation challenges in payment bank. The findings indicate that limited digital infrastructure, low literacy in rural areas, and competition from private banks hinder payment bank digital efficiency. The study reveals that customers in rural areas face issues with service accessibility due to poor network connectivity and lack of multilingual support. The author concludes that strategic partnerships with FinTech companies, regular employee digital proficiency training, and introducing user-friendly mobile apps with local language support can significantly improve digital efficiency at payment bank.

Reddy, V. & Prasad, N. (2021) conducted a study titled ***"Enhancing Service Accessibility through Digital Banking in Rural India",*** published in the Journal of Rural Banking and Financial Inclusion. The study used a sample of 140 respondents and employed regression analysis and t-tests. The objective was to explore **service accessibility challenges in rural banking** through digital platforms. The findings reveal that **language barriers, low digital literacy,** and **poor connectivity** hinder digital adoption. Banks that provided **simplified app navigation, multilingual support,** and **offline transaction capabilities** saw increased digital adoption rates. The authors concluded that regular **customer awareness programs**, free **digital literacy workshops**, and **customized banking solutions** significantly improve digital accessibility in rural areas

III - Research Methodology

Research Design

This study adopts a descriptive research design, which is suitable for analyzing current conditions, identifying challenges, and evaluating strategies for enhancing digital proficiency among users of Payments Bank. The descriptive approach enables the researcher to systematically assess customer perceptions, service accessibility, satisfaction levels, and technological efficiency based on real-world responses.

Method of Data Collection

Primary data was collected using a structured questionnaire distributed to both payment bank customers and employees in the region. The questionnaire included a range of close-ended and Likert-scale questions covering various aspects such as digital accessibility, market competition, cost-efficiency, and customer satisfaction..

Sample Size

A sample size of 120 respondents consisting of 66 customers and 54 employees was chosen using a stratified random sampling procedure to provide a representative sample of opinions and experiences.

Tools for Data Analysis

- Percentage Analysis
- Reliability Analysis
- Chi Square analysis

Scaling Method

A Likert scale (1-5) was used to measure respondents' agreement with statements regarding the impact of AI, blockchain, and digital proficiency. The scale ranged from strongly disagree (1) to strongly agree (5), allowing for quantifiable insights into user perceptions.

IV - Data Analysis and Interpretation

The data collected through the questionnaire was analyzed using Pearson correlation, and chi-square tests. Descriptive statistics helped summarize respondent demographics and identify patterns in perceptions of digital services. Correlation analysis examined relationships between variables like age, gender, and satisfaction, while chi-square tests assessed the association between demographic factors and service usage. The interpretation revealed key insights into customer satisfaction, accessibility, and the effectiveness of payment bank digital services, forming the basis for actionable suggestions.

4.1 CORRELATION

Correlation analysis was employed to examine the strength and direction of relationships between variables such as demographic factors and customer satisfaction with payment bank digital services. It helped identify whether changes in one variable corresponded to changes in another. Significant correlations revealed how factors like accessibility, service reliability, or user-friendliness influenced customer perceptions and satisfaction, supporting evidence-based insights into digital proficiency enhancement.

TABLE NO 4.1

Correlation between payment bank offers reliable service availability with minimal downtime and Market competition encourages payment bank to enhance its digital proficiency and customer service.

		Payment bank offers reliable service availability with minimal downtime	Market competition encourages payment bank to enhance its digital proficiency and customer service.
Payment bank offers reliable service availability with minimal downtime	Pearson Correlation	1.000	.381
	Sig. (2-tailed)		.000
	N	120	120
Market competition encourages payment bank to enhance its digital proficiency	Pearson Correlation	.381	1.000

and customer service.	Sig. (2-tailed)	.000	
	N	120	120

Interpretation:

The Pearson correlation coefficient (r = 0.381) indicates a moderate positive correlation between IPPB's reliable service availability and the belief that market competition motivates the bank to improve its digital and customer services.

The p-value is 0.000, which is less than 0.05, indicating that the correlation is highly statistically significant.

We reject the null hypothesis and accept the alternative hypothesis. This confirms that as IPPB ensures greater service reliability, customers are more likely to perceive that the bank is actively responding to competitive market pressures by improving its digital capabilities and customer service quality. This highlights the importance of service consistency in gaining a competitive edge in the digital banking space.

4.2 CHI-SQUARE TEST

Chi-square analysis was used to determine the association between categorical variables, such as demographic factors (age, gender, education) and perceptions of payment bank digital services. This test helped assess whether the observed distribution of responses significantly deviated from expected patterns. The results indicated whether user perceptions were influenced by demographic characteristics, providing insights into how different groups engage with payment bank digital offerings.

Table 4.2

Payment bank mobile apps are user friendly and convenient to access and market competition encourages payment bank to enhance its digital proficiency and customer service.

	Value	**df**	**Asymptotic Sig. (2-tailed)**
Pearson Chi-Square	20.76	16	.188
Likelihood Ratio	23.66	16	.097
Linear-by-Linear Association	4.37	1	.037
N of Valid Cases	120		

Interpretation:

From the above table, the Pearson Chi-Square significance value is 0.188, which is greater than 0.05. Hence, the Null Hypothesis (H_0) is accepted and the Alternative Hypothesis (H_1) is rejected. Therefore, it is inferred that there is no significant relationship between the selected variables based on your data; e.g., demographic factor and perception of IPPB's services.

Table 4.3 - Gender of the respondent and I feel secure while performing digital transactions with payment bank.

	Value	**Df**	**Asymptotic Sig. (2-tailed)**
Pearson Chi-Square	4.39	4	.355
Likelihood Ratio	5.84	4	.212
Linear-by-Linear Association	.23	1	.630
N of Valid Cases	120		

Interpretation:

From the above table, the Pearson Chi-Square significance value is 0.355, which is greater than 0.05. Hence, the Null Hypothesis (H_0) is accepted and the Alternative Hypothesis (H_1) is rejected. Therefore, it is inferred that there is no significant relationship between the two variables being tested (e.g., demographic factor and perception of digital services). This suggests that the responses to one variable are independent of the other and are not significantly influenced by it.

V – Summary and future direction

1. 35.83 % of the respondents are "Neutral" that local language support is essential for improving usage.

2. 30.83% of the respondents are "Neutral" that user-friendly mobile apps would encourage more users.

Maximum 32.50 % of respondents are "Neutral" from easily accessible regardless of location (urban/rural)

4. Maximum 36.67 % of respondents are “Agree” reliable services availability with minimal downtime

5. Maximum 33.33% of respondents are “Agree” improve digital services to stay competitive in the market.

Suggestions

To enhance digital proficiency in payment bank should conduct regular awareness programs and digital literacy workshops targeting rural and semi-urban populations. Improving the mobile app interface with multilingual support can significantly boost accessibility. Continuous training for staff on digital tools is essential to assist customers effectively. Strengthening digital infrastructure, especially in remote post offices, will improve service reliability. Additionally, introducing incentives for digital transactions, such as cashback or discounts, can motivate users. Ensuring data security and establishing a responsive feedback mechanism will further build customer trust and satisfaction with payment bank digital services.

Conclusion

The challenges and Implementation Strategies on Enhancing Digital Proficiency in payment bank has revealed that while there is growing acceptance of payment bank digital services, several challenges persist particularly in rural areas such as limited digital literacy, infrastructure issues, and concerns about service reliability and security. The analysis using correlation, and chi-square tests showed that factors like gender, accessibility, and service consistency significantly influence customer satisfaction, though many respondents remained neutral, reflecting mixed awareness and experiences. Despite these challenges, customers acknowledged the positive impact of competition and technological improvements by payment bank. Overall, the findings highlight that while payment bank has made significant strides in promoting digital banking, there remains a strong need for enhanced customer education, infrastructure development, and more seamless digital interfaces to ensure broader adoption and satisfaction across diverse user segments.

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