

Customer Adoption of Digital Banking Services Trends and Challenges Among Street Vendors

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Abstract

The rapid growth of digital banking services has transformed the financial landscape in India, particularly following government initiatives such as Digital India and the introduction of the Unified Payments Interface (UPI). While organized businesses and urban consumers have adapted swiftly to digital payment systems, street vendors in the informal economy continue to rely predominantly on cash-based transactions. This study examines the customer adoption of digital banking services among street vendors in Tirupur South City, focusing on trends in digital payment usage and the challenges faced. A descriptive research design was adopted with a sample of 163 respondents using convenience sampling. Data was collected through a structured questionnaire and analysed using frequency distribution, chi-square test, ANOVA, and correlation analysis. Findings reveal that UPI/QR code is the most widely adopted digital payment method (46.6%), with friends and relatives being the primary source of awareness (35.6%). Key challenges include lack of technical knowledge (31.3%), fear of online fraud (41.1%), and occasional payment failures (31.3%). The study concludes that improved digital literacy, stronger infrastructure, and targeted training programs are essential to enhance digital banking adoption among street vendors.

Keywords: Digital banking, street vendors, UPI, digital payment adoption, financial inclusion, Tirupur

1. INTRODUCTION

The Indian financial system has undergone a significant transformation over the past decade due to rapid digitalization. The introduction of digital banking services such as mobile banking, internet banking, Unified Payments Interface (UPI), mobile wallets, QR code-based payments, and Aadhaar-enabled payment systems has changed the way financial transactions are conducted. Government initiatives like Digital India, Jan Dhan Yojana, BHIM UPI, and Direct Benefit Transfer (DBT) have played a crucial role in promoting cashless transactions and financial inclusion across the country.

Street vendors are an important part of the urban informal economy in India, selling goods and services such as fruits, vegetables, food items, clothing, and household products. Despite their significant economic contribution, street vendors often remain financially excluded, relying heavily on cash transactions and informal financial practices. However, with increasing smartphone penetration, affordable internet services, and government support for digital payments, street

vendors are gradually adopting digital banking services.

This study focuses on understanding the level of adoption of digital banking services among street vendors, identifying current trends, and analysing the challenges faced by them. The findings aim to assist policymakers, banks, and digital payment service providers in designing better strategies for increasing digital financial inclusion among street vendors in Tirupur South City.

2. STATEMENT OF THE PROBLEM

In recent years, digital banking services have been widely promoted to encourage cashless transactions and financial inclusion. While customers and organized businesses have adopted these services rapidly, street vendors still depend largely on cash-based transactions. Many vendors face difficulties such as low digital literacy, lack of awareness, fear of online fraud, poor internet connectivity, and technical issues during transactions. Understanding the level of adoption, usage trends, and challenges faced by street vendors is essential for effective policy

implementation. Hence, this study attempts to analyse the customer adoption of digital banking services, trends, and challenges among street vendors in Tirupur South City.

3. OBJECTIVES OF THE STUDY

- To study the level of awareness of digital banking services among street vendors.
- To analyse the adoption of digital banking services by street vendors.
- To identify the major trends in digital payment methods used by street vendors.
- To examine the challenges faced by street vendors in using digital banking services.
- To suggest measures to improve the adoption of digital banking among street vendors.

4. NEED OF THE STUDY

Street vendors constitute a vital segment of the urban informal economy in Tirupur South City, yet their participation in formal digital banking systems remains limited. Several factors hinder their adoption, including low digital literacy, inadequate awareness, fear of cyber fraud, unstable internet connectivity, and technical difficulties during transactions. There is a need to systematically examine the level of digital banking adoption, identify usage trends, and analyse key challenges faced by street vendors to support effective policy formulation and inclusive financial development.

5. RESEARCH METHODOLOGY

Research Design: The present study adopts a descriptive research design, suitable for describing the existing level of adoption of digital banking services among street vendors.

Area of the Study: The study is conducted in Tirupur South City, an important commercial and industrial centre with a large number of street vendors.

Sample Size: The study consists of 163 respondents selected from different parts of Tirupur City.

Sampling Technique: Convenience sampling method was used for selecting respondents.

Period of Study: January 2025 – March 2025.

Method of Data Collection: A structured questionnaire was used to collect primary data directly from respondents.

Tools of Analysis: Chi-Square test, Frequency distribution analysis, Correlation analysis, and ANOVA.

6. LIMITATIONS OF THE STUDY

- The study is limited to Tirupur South City and a selected sample of 163 respondents.
- Responses are based on personal opinions of respondents, which may be biased.
- Lack of digital awareness among some street vendors may affect accuracy of responses.

7. DIGITAL BANKING SERVICES – AN OVERVIEW

Digital banking refers to the digitalization of all traditional banking activities and programs that historically were only available to customers when physically inside a bank branch. It includes services such as UPI/QR code payments, mobile banking, internet banking, mobile wallets (Paytm, Google Pay, PhonePe, BHIM), and Aadhaar-enabled payment systems. These services help customers to transfer funds, pay bills, check account balances, and conduct other financial transactions quickly and securely.

Street vendors have gradually started using digital payment methods to meet the growing customer demand for cashless transactions. UPI-based platforms have gained particular popularity due to their ease of use, zero transaction cost, and real-time settlement features. Platforms like Google Pay, PhonePe, Paytm, and BHIM allow vendors to accept payments simply by displaying a QR code, eliminating the need for expensive point-of-sale infrastructure.

8. TYPES OF DIGITAL BANKING SERVICES

Digital banking encompasses a wide range of services that allow customers and small businesses, including street vendors, to carry out financial transactions without visiting a physical bank branch. The major types of digital banking services relevant to this study are discussed below.

1. Unified Payments Interface (UPI)

UPI is a real-time payment system developed by the National Payments Corporation of India (NPCI) that allows instant transfer of money between bank accounts through a mobile application. Vendors simply display a UPI QR

code, and customers scan it to make payments instantly. Its zero-cost structure and ease of use have made UPI the most preferred mode of digital payment among street vendors in this study.

2. Mobile Banking

Mobile banking refers to banking services accessed through a smartphone application provided directly by banks. It allows users to check balances, transfer funds, pay bills, and view mini statements. Although less popular than UPI apps among vendors, mobile banking is gradually being used for fund transfers and balance enquiries.

3. Mobile Wallets

Mobile wallets such as Paytm, PhonePe, and Google Pay allow users to store money digitally and make payments without directly linking every transaction to a bank account. These wallets are popular among vendors due to their simple interface, instant notification of payment receipt, and cashback offers.

4. QR Code-Based Payments

QR code-based payment is one of the simplest forms of digital transactions for street vendors, as it eliminates the need for expensive point-of-sale (POS) machines. A static or dynamic QR code is displayed at the vendor's stall, and customers scan it using any UPI-enabled application to complete the payment instantly.

5. Card-Based Payments

Card-based payments involve the use of debit or credit cards through POS machines or card-swiping devices. Due to the additional cost of POS infrastructure, this method is less common among street vendors compared to UPI and QR-based payments, but is gradually being adopted by vendors with relatively higher business volumes.

6. Aadhaar-Enabled Payment System (AEPS)

AEPS allows customers to carry out basic banking transactions such as cash withdrawal, balance enquiry, and fund transfer using their Aadhaar number and biometric authentication. This system is particularly beneficial for vendors and customers who do not have smartphones, as it can be operated through micro-ATMs or banking correspondents.

7. Internet Banking

Internet banking allows account holders to perform banking transactions through a bank's website

using a computer or smartphone browser. While less frequently used by street vendors due to limited digital literacy and the need for a structured login process, it remains useful for larger fund transfers and bill payments.

Each of these digital banking services offers varying degrees of convenience, cost, and accessibility. Among street vendors in Tirupur South City, UPI/QR code-based payments dominate due to their simplicity, zero transaction cost, and minimal infrastructure requirements, making them the most practical option for small-scale, high-frequency transactions typical of street vending businesses.

9. FINDINGS OF THE STUDY

A. Frequency Distribution Analysis

- Majority of the respondents 85 (52.1%) are female.
- Majority of the respondents 63 (38.7%) are in the age group of 21–30 years.
- Majority of the respondents 54 (33.1%) are students.
- Majority of the respondents 69 (42.3%) are undergraduates.
- Majority of the respondents 44 (27.0%) earn below ₹10,000.
- Majority of the respondents 76 (46.6%) are aware of UPI/QR code as a digital payment method.
- Majority of the respondents 58 (35.6%) learned about digital payments through friends/relatives.
- Majority of the respondents 54 (33.1%) regularly accept digital payments in their business.
- Majority of the respondents 80 (49.1%) mostly use UPI/QR code for digital payments.
- Majority of the respondents 50 (30.7%) started using digital payments 1–3 years ago.
- Majority of the respondents 63 (38.7%) adopted digital payments due to convenience.
- Majority of the respondents 65 (39.9%) are comfortable in using digital payment apps.
- Majority of the respondents 58 (35.6%) report that digital payments are increasing in their business.
- Majority of the respondents 69 (42.3%) report that UPI/QR payments are the most

common payment mode among their customers.

- Majority of the respondents 46 (28.2%) have slightly reduced cash handling in their business.
- Majority of the respondents 65 (39.9%) agree that digital payments help in maintaining sales records.
- Majority of the respondents 61 (37.4%) sometimes face difficulties in using digital payment services.
- Majority of the respondents 51 (31.3%) cite lack of technical knowledge as the main problem.
- Majority of the respondents 51 (31.3%) have occasionally experienced payment failures or delays.
- Most of the respondents 67 (41.1%) agree that security concerns prevent them from fully using digital banking.
- Most of the respondents 73 (44.8%) agree that better internet facilities would encourage more usage.
- Most of the respondents 63 (38.7%) would be motivated by easy-to-use apps to increase digital payment usage.
- Majority of the respondents 47 (28.8%) are satisfied with digital banking service awareness.
- Majority of the respondents 61 (37.4%) are satisfied with the information/training received.
- Majority of the respondents 55 (33.7%) are neutral regarding transaction charges as a burden.
- Majority of the respondents 48 (29.4%) are very satisfied and willing to continue using digital banking in the future.

B. Findings of Chi-Square Analysis

- There is a significant relationship between accepting digital payments and the source of learning about them.
- There is a significant relationship between the digital payment method mostly used and awareness of digital banking services.
- There is a statistically significant association between how often customers prefer digital payments and whether respondents received training.

- There is a significant association between the reduction of cash handling and security concerns in using digital banking.
- There is a significant association between difficulty in using digital payment technology and the main problems faced.

C. Findings of ANOVA

- There is a significant difference in the most common payment mode among customers.
- There is a significant difference in whether digital payments have reduced cash handling in business.
- There is a highly significant difference in accepting digital payments across the compared groups.
- There is a significant difference in opinions on whether digital payments help in maintaining sales records.

D. Findings of Correlation Analysis

- There is a positive relationship between awareness of digital banking services and acceptance of digital payments in business.
- There is a very strong positive relationship between the perception that digital payments are easy to understand and comfort in using digital payment apps.
- There is a moderate relationship between security concerns and satisfaction with continuing digital banking in the future.
- There is a strong positive relationship ($r = 0.744$) between customer preference for digital payments and the increase in digital payment usage in business.
- There is a strong positive relationship ($r = 0.785$) between difficulty in using digital payment technology and experiencing payment failures or delays.
- There is a positive relationship ($r = 0.323$) between better internet facilities and motivation to increase digital payment usage.

10. SUGGESTION

Based on the findings of the study, the following suggestions are offered to promote digital banking adoption among street vendors:

- Banks and government agencies should conduct regular digital literacy camps and

awareness programs specifically targeting street vendors in informal markets.

- Digital payment applications should be made more user-friendly with regional language support and voice-assisted features to reduce the digital divide.
- Internet connectivity infrastructure in semi-urban and market areas should be strengthened to reduce transaction failures and encourage consistent usage.
- Financial institutions should implement transparent and simplified grievance redressal mechanisms to address vendor concerns about fraud and transaction errors.
- Incentive schemes such as cashback offers, transaction rewards, and zero-charge processing should be promoted to motivate vendors to adopt digital banking.
- Gender-sensitive training programs should be introduced to empower female vendors who face comparatively greater barriers to digital adoption.
- Government schemes and bank-led initiatives should ensure continuous follow-up support beyond initial enrolment to ensure sustained digital banking usage.

11. CONCLUSION

This study examined the extent of digital banking adoption, usage patterns, and challenges among street vendors in Tirupur South City. The findings show that digital banking services are gradually gaining acceptance among vendors, mainly due to customer preference and the convenience of cashless transactions. UPI/QR code payments have emerged as the dominant digital payment method, widely used due to their simplicity, zero transaction cost, and real-time processing capabilities.

However, the level of adoption is not uniform. Several barriers affect adoption including limited digital literacy, lack of proper awareness, fear of online fraud, unstable internet connectivity, and technical difficulties during transactions. Personal factors such as age, education, and income level also influence the willingness and ability of vendors to adopt digital banking services.

Despite these challenges, digital banking offers clear advantages such as improved security, faster transactions, and better record maintenance. In conclusion, promoting digital literacy and strengthening support systems are essential to

ensure that street vendors in Tirupur South City can fully benefit from digital banking services and participate more effectively in the formal financial system.

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