



# INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

## CHALLENGES FACED BY RURAL PEOPLE IN USING DIGITAL TRANSACTIONS: A CASE STUDY ON KEONJHAR DISTRICT

**Mr. Ajaya Kumar Sahoo<sup>1</sup>, Miss Manisha Mukherjee<sup>2</sup>**

Lecturer in Commerce, Govt Women's College, Keonjhar,

Lecturer in Commerce, Govt Women's Higher Secondary School, Keonjhar,

### Abstract

The expansion of digital payment systems in India has significantly transformed the country's financial ecosystem, particularly after initiatives like Digital India and the promotion of UPI-based payments. However, rural areas still face significant barriers in adopting digital payment systems. This research paper examines the challenges faced by rural people in using digital transactions in Keonjhar district of Odisha. The study identifies key issues such as lack of digital literacy, poor internet connectivity, cybersecurity concerns, language barriers, and limited access to smartphones. Based on primary and secondary data, the study highlights the gap between awareness and actual usage of digital payment systems. The paper also suggests practical measures to improve digital transaction adoption in rural communities. The paper concludes that digital transactions have the potential to transform rural economies by promoting financial inclusion and economic transparency. It recommended targeted awareness programs, infrastructure improvement, provide education about the cybersecurity and measures to strengthen digital financial inclusion in rural areas.

**Keywords:** -Transformation, Initiatives, Barrier, Cybersecurity, Inclusion, Improvement

### 1. Introduction

India has witnessed rapid growth in digital payment systems, especially after demonetization in 2016 and the introduction of Unified Payments Interface (UPI). Government initiatives have aimed to promote cashless transactions to ensure transparency, reduce corruption, and enhance financial inclusion. However, the situation in rural India presents a different picture. Despite increased awareness campaigns and government support, many rural communities continue to face obstacles in adopting digital payment systems. Factors such as low digital literacy, inadequate internet connectivity, limited access to smartphones, and concerns about cybersecurity hinder widespread usage. Additionally, socio-economic conditions and traditional preferences for cash transactions further slow the transition.

Rural people often experience limited access to smartphones, stable internet connectivity, and digital infrastructure. Poor network coverage and electricity problems further restrict the regular use of digital platforms. In addition, digital illiteracy is a major issue. Many rural residents lack proper knowledge and training to operate mobile applications or understand online banking procedures. This creates hesitation and fear of making mistakes during transactions.

Security concerns also play a significant role. Cases of online fraud, phishing, and OTP scams reduce trust in digital systems. Rural users, especially elderly people, feel insecure about sharing personal information online. Language barriers add another difficulty, as many digital platforms primarily operate in English, which may not be easily understood by rural populations.

Despite these efforts, rural areas like Keonjhar district continue to experience slow adoption of digital transactions. Keonjhar is largely rural and tribal-dominated, with many people depending on agriculture and small businesses. Limited infrastructure, low literacy rates, and socio-economic challenges affect the adoption of digital financial services.

### 1.1 Concept of Digital Transactions

Digital transactions refer to financial transactions conducted electronically without the use of physical cash. These transactions are processed through digital devices such as smartphones, computers, ATMs, or Point-of-Sale (POS) machines using secure online networks. Digital transactions are fast, convenient, secure, and promote a cashless economy. In India, digital payments have grown rapidly, especially after demonetization (2016) and the Digital India initiative.

## Types of Digital Transactions

### 1. UPI Payments

- UPI (Unified Payments Interface) is an instant real-time payment system developed by National Payments Corporation of India (NPCI).
- Works through mobile apps
- Transfers money using UPI ID or mobile number
- 24×7 availability
- Instant bank-to-bank transfer
- Examples: PhonePe, Google Pay, Paytm

### 2. Mobile Banking

- Mobile banking allows customers to perform banking activities through a bank's mobile application.
- Services include: Fund transfer, Balance check, Bill payment, Mini statements, Online shopping payments
- It is provided by individual banks through their official apps.

### 3. ATM Transactions

- ATM (Automated Teller Machine) transactions allow customers to: Withdraw cash, Deposit cash, Check balance, Transfer funds
- ATMs use debit/credit cards and PIN for secure authentication.

### 4. Internet Banking

Internet banking (Online Banking) allows customers to access their bank account through a bank's official website.

#### **Features:**

- NEFT/RTGS/IMPS transfer
- Online bill payments
- Account statements download
- Tax payments
- It requires a User ID and Password for login.

### 5. Debit and Credit Card Payments

#### **Debit Card**

Linked directly to a bank account

Amount is deducted immediately

#### **Credit Card**

Allows borrowing money from the bank

Payment can be made later within the due date

Cards are used for: Online shopping, International transactions

### 6. Digital Wallets

Digital wallets (E-Wallets) store money electronically and allow quick payments.

Examples: PhonePe, Google Pay, Paytm

## 1.2 Advantages of Digital Transactions

### **1. Convenience and Ease of Use**

Digital payments can be made anytime and anywhere using a smartphone or computer. There is no need to carry cash. Payments can be completed within seconds.

### **2. Time-Saving**

Standing in long queues at banks is reduced. Money transfers, bill payments, and shopping payments are done instantly.

### **3. 24×7 Availability**

Unlike banks, digital platforms operate 24 hours a day, including weekends and holidays.

### **4. Faster Transactions**

Money is transferred instantly through systems like UPI, IMPS, or card payments. This is especially useful in emergencies.

## 5. Secure and Transparent

Every transaction generates a digital record. This helps in tracking payments and reduces corruption and black money.

## 6. Record Keeping

Transaction history is automatically stored in apps and bank statements, making accounting and budgeting easier.

## 7. Safe During Emergencies

During situations like the COVID-19 pandemic, digital payments reduced physical contact and helped maintain social distancing.

## 8. Government Benefits & Subsidies

Direct Benefit Transfer (DBT) schemes send money directly to beneficiaries' bank accounts, reducing middlemen.

## 9. Rewards and Cashback

Many digital platforms provide cashback, discounts, and reward points, encouraging digital usage.

### 1.3 Disadvantages of Digital Transactions

#### 1. Risk of Cyber Fraud

Online scams, phishing, OTP fraud, and hacking are major risks. People with low digital awareness are more vulnerable.

#### 2. Internet Dependency

Digital payments require internet connectivity. In rural or remote areas, poor network coverage creates problems.

#### 3. Technical Issues

Server failures, app crashes, or payment gateway errors can delay transactions.

#### 4. Lack of Digital Literacy

Many elderly people and rural populations may not be comfortable using digital platforms.

#### 5. Privacy Concerns

Personal and financial data may be misused if security systems are weak.

#### 6. Transaction Charges

Some digital modes may charge service fees or convenience fees.

### 1.4 Challenges Faced by Rural People

#### 1. Poor Internet Connectivity-

Keonjhar has many remote and tribal villages where network coverage is weak. Slow internet speed and frequent signal loss make it difficult to complete UPI payments, online transfers, or digital banking transactions successfully.

#### 2. Low Digital Literacy-

Many rural residents, especially elderly people, lack knowledge about using smartphones, apps like Google Pay, PhonePe, and Paytm. They often do not understand OTP, PIN security, or app navigation.

#### 3. Lack of Awareness and Training-

Government initiatives like Digital India promote digital payments, but awareness programs do not always reach remote villages effectively. Many people are unaware of digital banking benefits and safety measures.

#### 4. Fear of Fraud and Cybercrime-

Rural users fear online fraud, phishing calls, ATM fraud, and OTP scams. Lack of cybersecurity knowledge increases mistrust in digital platforms.

#### 5. Limited Access to Smartphones and Banking Facilities-

Not all households can afford smartphones or stable electricity for charging devices. Some villages have limited access to banks or ATMs, even though schemes like Pradhan Mantri Jan Dhan Yojana have improved financial inclusion.

#### 6. Language Barriers

Most digital apps operate primarily in English or Hindi. People in Keonjhar who speak Odia or tribal languages face difficulty understanding transaction instructions.

## **7. Poor Financial Literacy-**

Many rural people lack knowledge about banking procedures, digital wallets, interest rates, transaction limits, and account security.

## **8. Trust Issues and Preference for Cash-**

Rural communities traditionally rely on cash transactions. They feel cash is more secure and tangible compared to digital money.

## **9. Technical Errors and Transaction Failures-**

Frequent server issues, delayed refunds, and failed transactions discourage continued usage of digital payment systems.

## **10. Irregular Electricity Supply-**

Some rural areas in Keonjhar face power cuts, affecting mobile charging and internet services, which directly impacts digital transaction usage.

## **2. Literature Review**

Subbarayan Amudhan, Banerjee Sayantani and J Poornima (2023) examines the effects of digital banking initiatives in rural regions. The review highlights how mobile banking, UPI, and online services enhance financial inclusion, transaction speed, and transparency. It also discusses improved access to credit and government benefits. However, barriers such as digital illiteracy, weak internet connectivity, cybersecurity risks, and customer trust issues remain significant. The authors conclude that awareness programs, infrastructure development, and policy support are vital for successful rural digital banking transformation.

Shinde Govind & Salinkhe Sanjay (2022) study on digital financial inclusion has been widely discussed in the context of India's rural development, especially after the launch of initiatives like Digital India and the expansion of National Payments Corporation of India platforms such as UPI. Studies highlight that digital financial instruments improve transparency, reduce transaction costs, and promote financial inclusion. However, research indicates persistent challenges in rural areas, including low digital literacy, poor internet connectivity, lack of trust, cybersecurity concerns, and language barriers. Scholars also emphasize socio-economic factors like education level, income, and age as key determinants of digital adoption.

Vasant Prachi, Garg Chahat and Chaporkar Vaibhavi (2025) explores the role of digital payment systems in empowering small-scale rural businesses. The study highlights how digital transactions enhance transparency, financial inclusion, and access to formal credit. It emphasizes improved market reach, reduced dependency on cash, and better record-keeping practices. However, challenges such as limited digital literacy, poor internet connectivity, cybersecurity risks, and resistance to technological change persist. The authors conclude that supportive policies, digital training programs, and improved infrastructure are essential to accelerate rural transformation through digital financial systems.

Kumar D. & Mehra R. (2024), analyses the barriers to implementing a cashless economy in rural India. The paper highlights issues such as low digital literacy, inadequate banking infrastructure, poor internet connectivity, and lack of trust in digital payment systems. It also discusses socio-economic factors, including income levels and resistance to technological change, that affect adoption. The study emphasizes the importance of government initiatives, awareness programs, and improved cybersecurity measures to encourage digital transactions. The author concludes that coordinated efforts are required to successfully promote cashless practices in rural areas.

Nayak Raghavendra (2018) examines the transformation of traditional banking into digital platforms. The paper highlights how digital banking improves efficiency, transparency, and customer convenience through internet banking, mobile banking, and electronic payments. However, it also identifies key challenges such as cybersecurity risks, data privacy concerns, lack of digital literacy, high implementation costs, and resistance to change. The study concludes that while digitalization strengthens banking services, proper regulatory support, customer awareness, and technological infrastructure are essential for sustainable growth in the digital banking sector.

Ranjan S & Asthana Kumar A. (2023) examines factors influencing the acceptance of digital payment systems in rural areas. The paper highlights the role of government initiatives, mobile penetration, and banking outreach in promoting digital transactions. It identifies key determinants such as perceived usefulness, ease of use, trust, and awareness. However, challenges like low digital literacy, poor infrastructure, and security concerns hinder adoption. The authors conclude that strengthening digital education and improving technological access are essential to enhance rural participation in digital payment systems.

Giri Arunangshu and Paria Ipsita (2018) analyses how digital initiatives have transformed rural banking in India. The review highlights the role of mobile banking, internet banking, ATMs, and government schemes in promoting financial inclusion and transparency. It notes improvements in access to credit, direct benefit transfers, and cashless transactions in rural areas. However, challenges such as low digital literacy, poor internet connectivity, cybersecurity risks, and resistance to technology adoption remain significant barriers to sustainable rural economic development.

Singh Renu & Malik Garima (2019) examines how digital payment systems influence rural banking customers. The study highlights the growing adoption of mobile banking, debit cards, and electronic payment platforms in rural areas. It emphasizes improved convenience, faster transactions, and enhanced financial inclusion. However, the paper also identifies challenges such as limited digital literacy, trust issues, security concerns, and inadequate infrastructure. The authors conclude that strengthening awareness programs and digital infrastructure is essential to maximize the benefits of digitalization in rural banking.

### 3. Research Objectives

- To examine the level of awareness of digital transactions among rural people in Keonjhar district.
- To identify the major challenges faced in using digital payment systems.
- To analyse the relationship between digital literacy and usage of digital transactions.
- To study the impact of internet connectivity on digital payment adoption.
- To suggest measures for improving digital transaction usage in rural areas.

### 4. Research Hypotheses

H0 (Null Hypothesis): There is no significant relationship between digital literacy and the usage of digital transactions among rural people in Keonjhar district.

H1 (Alternative Hypothesis): There is a significant relationship between digital literacy and the usage of digital transactions among rural people in Keonjhar district.

H0<sub>2</sub> (Null Hypothesis): Internet connectivity does not significantly affect the adoption of digital transactions in rural areas.

H1<sub>2</sub> (Alternative Hypothesis): Internet connectivity significantly affects the adoption of digital transactions in rural areas.

### 5. Research Methodology

#### **Research Design**

The study is based on a descriptive research design, aiming to identify and analyse the challenges faced by rural people in using digital transactions.

#### **Nature of Data**

**Primary Data:** Collected through structured questionnaires and personal interviews with rural residents.

**Secondary Data:** Collected from reports of RBI, NPCI, government publications, journals, and websites.

#### **Sampling Method**

A simple random sampling method was used to select respondents from different villages of Keonjhar district.

#### **Sample Size**

**Total Respondents:** 100 rural residents

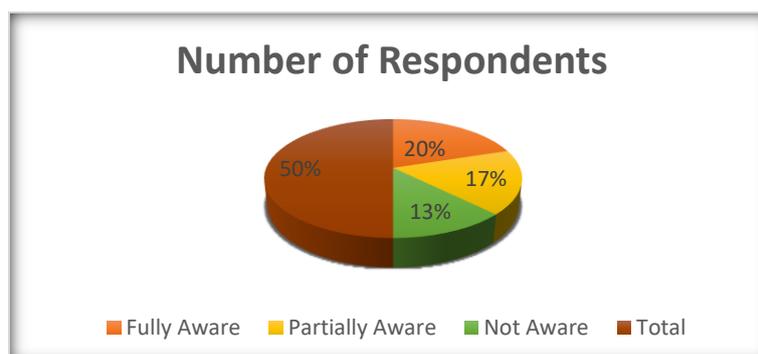
**Tools for Data Collection:** - Structured questionnaire, Personal interaction, Observation method

**Tools for Data Analysis** - Percentage analysis, Tabular presentation, Simple hypothesis tests.

### 6. Data Analysis & Interpretation

Table 1: Awareness of Digital Transactions

Awareness Level	Number of Respondents	Percentage
Fully Aware	40	40%
Partially Aware	35	35%
Not Aware	25	25%
Total	100	100%



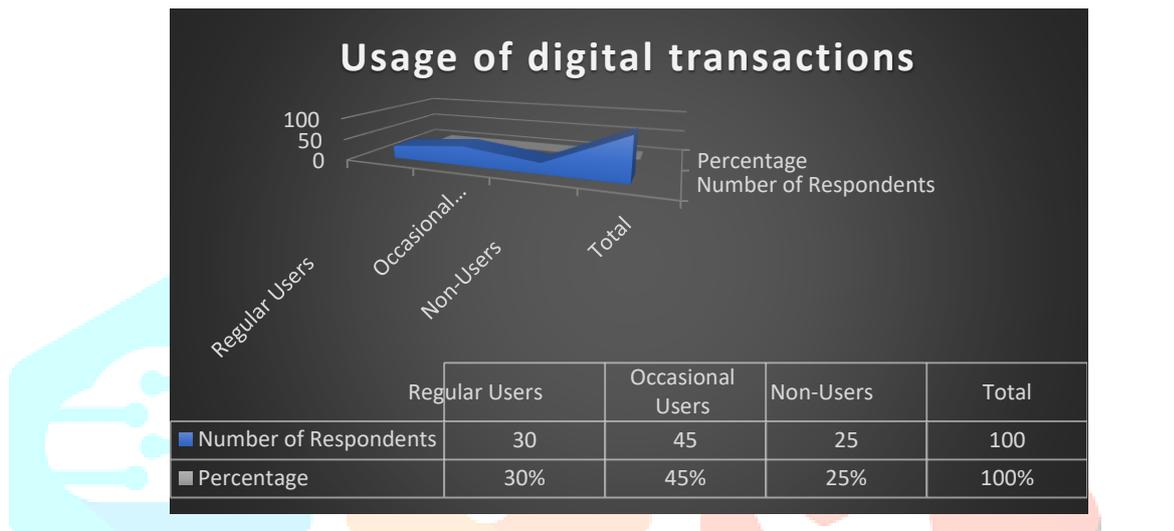
(figure 1: Awareness of digital transaction respondents)

Interpretation:

Although 75% respondents have some awareness, only 40% are fully aware of digital transaction procedures.

Table 2: Usage of Digital Transactions

Usage Frequency	Number of Respondents	Percentage
Regular Users	30	30%
Occasional Users	45	45%
Non-Users	25	25%
Total	100	100%



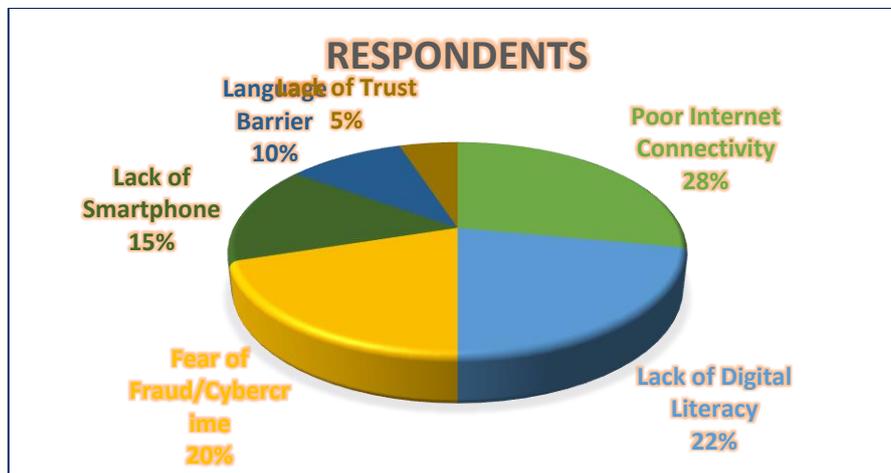
(figure 2: Usage of digital transactions)

Interpretation:

Only 30% use digital payments regularly, indicating a gap between awareness and practical usage.

Table 3: Major Challenges Faced

Challenges	Respondents	Percentage
Poor Internet Connectivity	28	28%
Lack of Digital Literacy	22	22%
Fear of Fraud/Cybercrime	20	20%
Lack of Smartphone	15	15%
Language Barrier	10	10%
Lack of Trust	5	5%



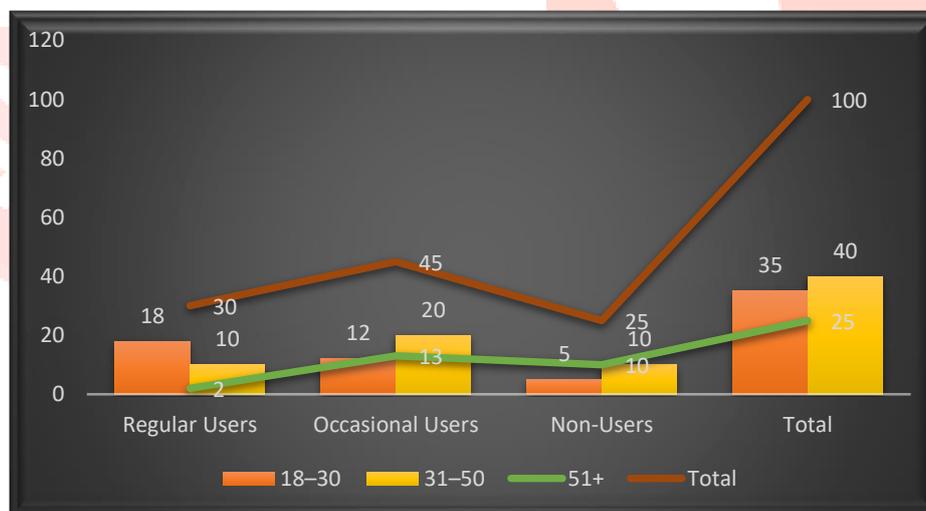
(figure 3: major challenges)

**Interpretation:**

Poor internet connectivity is the biggest challenge (28%), followed by digital illiteracy (22%) and fear of fraud (20%).

Table 4: Age-wise Digital Transaction Usage

Age Group	Regular Users	Occasional Users	Non-Users	Total
18–30	18	12	5	35
31–50	10	20	10	40
51+	2	13	10	25
Total	30	45	25	100



(figure 4: age-wise digital transaction usage)

**Interpretation:**

Younger respondents (18–30 years) show higher regular usage compared to older age groups.

**Hypothesis Testing (Simple Analysis)**

From the data: Higher digital literacy corresponds with higher regular usage.

Areas with better internet connectivity show more frequent digital transactions.

Therefore: The Null Hypotheses (H0 and H0<sub>2</sub>) are rejected, and the Alternative Hypotheses (H1 and H1<sub>2</sub>) are accepted.

This indicates that:

Digital literacy significantly influences usage.

Internet connectivity significantly affects adoption.

## **7. Findings of the Study**

- ❖ Awareness about digital transactions exists, but regular usage is low.
- ❖ Younger people are more comfortable using digital payments compared to older generations.
- ❖ Shopkeepers in semi-urban areas adopt digital payments faster than interior village vendors.
- ❖ Fear of fraud is one of the biggest barriers.
- ❖ Government awareness programs are present but not sufficiently effective in remote areas.

## **8. Suggestions**

- ❖ Conduct regular digital literacy training camps in villages.
- ❖ Improve internet connectivity in remote areas.
- ❖ Promote digital payment apps in regional languages like Odia.
- ❖ Strengthen cybersecurity awareness campaigns.
- ❖ Provide incentives and cashback offers to encourage first-time users.
- ❖ Increase the number of banking correspondents in rural areas.
- ❖ Encourage self-help groups (SHGs) to promote digital financial education.

## **9. Conclusion**

Digital transactions have the potential to transform rural economies by promoting financial inclusion and economic transparency. However, in Keonjhar district, several structural, technological, and social barriers limit the widespread adoption of digital payments. Addressing issues such as digital literacy, connectivity, and cybersecurity awareness is essential to ensure inclusive digital growth. With proper policy implementation and community-based awareness programs, rural populations can gradually shift towards a secure and efficient digital payment system.

## **10. Reference**

1. Subbarayan A., Banerjee S. and J Poornima [2023], Impact of digital transformation of banking sector in rural areas., Journal of Positive school Psychology, Vol. 6, No. 2, 763-771
2. Shinde Govind & Salinkhe Sanjay [2022], "A study on challenges faced by rural people using digital financial instruments in Thane district International journal of Gender, Science and Technology", Volume No 11, ISSN: 2040-0748
3. Vasant Prachi, Garg Chahat and Chaporkar Vaibhavi [2025], Digital Transactions and Rural Transformation: A Study of Small-Scale Business Empowerment Prof. Prachi Vasant Chahat Garg Vaibhavi Chaporkar, Vidyaana 11(si1):399-418.
4. Kumar D. & Mehra R. [2024], "Cashless economy in rural India: challenges and Opportunities", Shodh Samarth-Research Journal of Commerce, Management & Economics, Vol. 1(2), ISSN: 3048-6505.
5. Nayak Raghavendra [2018], A Conceptual study on digitalization of banking-issues and challenges, International Journal of Management, IT & Engineering 2249-0558, Vol.8.
6. Ranjan S & Asthana Kumar A. [2023]. "Impact of Digital Payment System on Indian Rural Banking Customer", International Journal of Research Publication and Reviews, Vol 4, No. 6, ISSN: 2682-7421.
7. Giri A., Paria I [2018], "Impact of Digitalization on Indian Rural Banking System and Rural Economy", Research Review International Journal of Multidisciplinary, Vol. 03, ISSN: 2455-3085.
8. Singh Renu & Malik Garima [2019], "Impact of Digitalization on Indian Rural Banking Customer: With Reference to Payment Systems Emerging Economy Studies".