# A Study on the Growth of Digital Payment Systems in Raipur, Chhattisgarh: Trends, Adoption, and Impact on Local Commerce in 2020

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Abstract

The study explores the growth and adoption of digital payment systems in Raipur, Chhattisgarh, during 2020, focusing on their impact on local commerce, particularly small and medium-sized enterprises (SMEs). With the government's push for a digital economy through initiatives like *Digital India* and the accelerated adoption of cashless payments due to the COVID-19 pandemic, the research examines trends in digital payment usage, adoption challenges, and their broader impact on business operations. A mixed-method approach involving a survey of 150 businesses and interviews with 20 local business owners was used to gather both quantitative and qualitative data. The findings reveal that Unified Payments Interface (UPI) and mobile wallets are the most widely adopted methods, although barriers such as digital literacy, internet connectivity, and security concerns persist. The study concludes that while digital payments have led to increased customer reach and operational efficiency, challenges remain that need to be addressed for further growth. Government initiatives have played a significant role in facilitating adoption, but continued support is necessary to overcome existing obstacles.

Keywords: Digital Payments, Raipur, Chhattisgarh, Local Commerce, Small and Medium-Sized Enterprises (SMEs), UPI

# 1. Introduction

Digital payment systems have fundamentally transformed the way commerce operates in India. Over the past decade, the government's *Digital India* initiative and the growth of mobile technology have played a pivotal role in pushing for cashless transactions. However, the shift toward digital payments became even more pronounced in 2020 due to the global COVID-19 pandemic, which necessitated contactless methods of payment to maintain social distancing. In cities like Raipur, Chhattisgarh, this shift has been met with a combination of enthusiasm and resistance, particularly among small businesses that have had to adapt to changing circumstances.

Raipur, as a growing urban center, has seen a significant increase in digital payment adoption, driven by both consumer demand for safer payment methods and governmental initiatives aimed at promoting cashless transactions. This research aims to study the trends in digital payment adoption in Raipur in 2020, with a particular focus on the challenges faced by local businesses in adopting these systems. Furthermore, this paper will examine the broader impact of these payment methods on local commerce, especially the MSME (Micro, Small, and Medium Enterprises) sector, and how these changes have shaped business operations in the wake of the pandemic.

# 2. Research Objectives

The primary objectives of this research are to:

- 1. Examine the trends in digital payment adoption in Raipur during 2020, with a focus on the types of digital payment systems used, and the factors influencing their adoption.
- 2. **Identify key challenges** faced by local businesses in Raipur when adopting digital payment systems, such as digital literacy, infrastructure limitations, and trust issues.

- 3. **Assess the impact of digital payments on local commerce**, particularly on MSMEs, in terms of customer reach, operational efficiency, and business sustainability during the pandemic.
- 4. Evaluate the effectiveness of government initiatives like *PMGDISHA*, *BHIM UPI*, and other schemes in facilitating the adoption of digital payments in Raipur.

#### 3. Literature Review

#### Indian Literature Review (On or Before 2020)

Several studies have explored the adoption of digital payment systems in India, particularly in the context of Tier 2 and Tier 3 cities like Raipur. These studies offer insights into the drivers of digital payment growth and the barriers to wider adoption.

- 1. Soni, P., & Soni, N. (2019) found that mobile wallets were among the most preferred methods of digital payment in urban India, but adoption rates were slower in semi-urban and rural areas. They identified a key barrier to digital payment adoption as the lack of digital literacy, with many small business owners in cities like Raipur lacking the skills to use such technologies effectively. The study recommended increasing digital literacy to accelerate adoption.
- 2. Chandra, P., & Sharma, R. (2018) conducted a study focusing on the adoption of the Unified Payments Interface (UPI) in smaller cities. They concluded that UPI was becoming popular in cities like Raipur due to its simplicity and low cost, but noted that there were significant challenges in terms of internet connectivity and user trust. Businesses in Raipur were often hesitant to adopt UPI fully due to concerns about the security of online transactions.
- 3. **Bansal, R., & Kumar, S.** (2017) analyzed the role of government initiatives such as *Pradhan Mantri Gramin Digital Saksharta Abhiyan* (PMGDISHA) and the introduction of *BHIM UPI* in promoting cashless transactions. They found that while these initiatives had successfully raised awareness, the uptake of digital payment systems was uneven, with infrastructure limitations and security concerns acting as major obstacles.

These studies collectively indicate that while there has been significant progress in the adoption of digital payments in cities like Raipur, several factors, such as digital literacy, infrastructure, and security concerns, continue to hinder widespread usage.

#### 4. Research Methodology

The methodology used in this study combines both **quantitative** and **qualitative** approaches to gather comprehensive data about the adoption of digital payments in Raipur.

- 1. **Survey**: A structured questionnaire was designed to collect data from 150 small and medium-sized businesses in Raipur. The survey included questions on the types of digital payments used, frequency of use, challenges faced, and perceived benefits of adopting digital payment systems.
- 2. **Interviews**: In-depth interviews were conducted with 20 local business owners in Raipur. These interviews provided qualitative insights into the personal experiences of business owners, their perceptions of government initiatives, and the barriers they faced in adopting digital payments.
- 3. Data Analysis: The quantitative data collected from the surveys were analyzed using descriptive statistics, including frequency distributions, averages, and percentages. The qualitative data from interviews were analyzed using thematic analysis, identifying recurring themes related to adoption challenges, benefits, and the role of government initiatives.

## 5. Data Analysis and Discussion

Table 1: Digital Payment Methods Used by Businesses in Raipur

Digital Payment Method	Percentage of Businesses Using (%)
UPI (Unified Payments Interface)	45%
Mobile Wallets (Paytm, Google Pay)	35%
Credit/Debit Cards	15%
Cash on Delivery	5%

• Analysis: The data indicates that UPI (Unified Payments Interface) is the most popular payment method, with 45% of businesses in Raipur using it. UPI's ease of use, low transaction costs, and strong government backing, including the *BHIM* app, have made it a top choice for both businesses and consumers. Mobile wallets like Paytm and Google Pay follow closely with 35% adoption. Credit and debit cards are less commonly used, reflecting the preference for simpler, low-cost methods like UPI and mobile wallets in Raipur. Cash on delivery is still used by a small percentage (5%) of businesses, despite the pandemic's push for contactless transactions.

Source: Survey Data (2020)

Table 2: Challenges Faced by Businesses in Adopting Digital Payments

Challenge	Percentage of Businesses Affected (%)
Lack of Digital Literacy	40%
<b>Poor Internet Connectivity</b>	30%
Security Concerns	20%
High Transaction Fees	10%

• Analysis: The most significant challenge reported by businesses is the lack of digital literacy, with 40% of businesses acknowledging that their employees were not fully equipped to handle digital payment systems. Poor internet connectivity (30%) also remains a critical issue, particularly for businesses located in less urbanized areas of Raipur. Security concerns (20%) were also frequently mentioned, as many business owners were wary of fraud and data breaches. Finally, transaction fees (10%) were identified as a deterrent for smaller businesses with low transaction volumes.

Source: Survey Data (2020)

**Table 3: Impact of Digital Payments on Business Operations** 

<b>Impact on Business Operations</b>	Percentage of Businesses Reporting Impact (%)
Increased Customer Base	50%
Faster Transactions	30%
Improved Customer Satisfaction	15%
No Impact	5%

• Analysis: The data suggests that digital payments have had a largely positive effect on business operations in Raipur. 50% of businesses reported that digital payments led to an increase in their customer base, as more customers preferred contactless methods during the pandemic. Faster transactions (30%) allowed businesses to handle more customers in less time, improving operational efficiency. However, only 15% of businesses reported an improvement in customer satisfaction,

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suggesting that while digital payments have brought convenience, they are not yet fully perceived as enhancing the overall customer experience in Raipur.

Source: Survey Data (2020)

## 6. Challenges Faced by Local Businesses

The challenges faced by businesses in Raipur largely reflect the national barriers to digital payment adoption. The **lack of digital literacy** is particularly significant in Raipur, as many small business owners are unfamiliar with technology. Even those who are somewhat comfortable with technology still struggle with more complex payment systems such as UPI and mobile wallets.

**Infrastructure limitations**, particularly **poor internet connectivity**, have been a persistent issue in many parts of Raipur. This has led to disruptions in digital payments, especially in the more rural parts of the city. While Raipur has made significant strides in internet penetration, there are still areas where high-speed internet is not consistently available.

**Security concerns** are another significant barrier to adoption. Many business owners remain cautious about fraud and hacking risks associated with digital payments. Lastly, **high transaction fees** have deterred smaller businesses from adopting digital payment systems, especially when they are working with low-margin products.

## 7. Impact on Local Commerce

The adoption of digital payment systems has had a noticeable impact on local commerce in Raipur. For businesses, the shift towards digital payments has increased **customer reach**, with more tech-savvy consumers preferring the convenience of mobile payments. This is particularly evident in the MSME sector, where businesses have leveraged digital platforms to expand their customer base beyond local markets.

The ability to conduct **faster transactions** has improved operational efficiency for many businesses. Transactions that once took minutes or even hours in cash transactions can now be completed in seconds, allowing businesses to serve more customers in less time. **Customer satisfaction** has also improved, albeit to a lesser extent, as customers appreciate the speed and security of digital payments.

## 8. Conclusion

This study concludes that the adoption of digital payment systems in Raipur has been largely positive, especially for MSMEs that rely on customer engagement for their growth. Government initiatives like *PMGDISHA*, *BHIM UPI*, and other schemes have played a crucial role in increasing awareness and adoption. However, challenges related to digital literacy, internet infrastructure, and security concerns remain significant barriers. Despite these challenges, digital payments have proven beneficial for local businesses, especially in terms of increased customer reach, faster transactions, and improved business sustainability during the pandemic.

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