

COVID-19 as a Catalyst for Digital Payment Growth: A Case Study of Mehsana City

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Abstract

This case study investigates the impact of the COVID-19 pandemic on the adoption and growth of digital payment systems in Mehsana City, Gujarat, India. The research employs a mixed-methods approach, combining quantitative data analysis of digital transaction volumes and qualitative insights from local businesses and consumers. Findings indicate a significant acceleration in digital payment adoption, with a 150% increase in digital transactions during the first six months of the pandemic. The study highlights the role of social distancing measures, government initiatives, and changing consumer preferences in driving this shift. It concludes that while COVID-19 acted as a catalyst, the growth in digital payments is likely to have long-lasting effects on Mehsana's economic landscape.

Introduction

The COVID-19 pandemic has profoundly impacted various aspects of daily life, including how people conduct financial transactions. In India, where cash has traditionally dominated the economy, the pandemic has accelerated the shift towards digital payment systems. This case study focuses on Mehsana City, a mid-sized urban center in Gujarat, to examine how COVID-19 has influenced the adoption and growth of digital payment methods.

Mehsana City, with a population of approximately 190,000, serves as an ideal microcosm for studying this phenomenon. As a growing industrial hub with a mix of traditional and modern businesses, Mehsana represents many similar tier-2 cities across India that is at the cusp of digital transformation.

The objectives of this study are to:

- Quantify the growth in digital payment adoption in Mehsana City during the COVID-19 pandemic.
- Identify the key factors driving this growth. Assess the challenges faced by businesses and consumers in transitioning to digital payments.
- Evaluate the potential long-term impacts of this shift on the local economy.

Literature Review

The COVID-19 pandemic has significantly accelerated the adoption of digital payment systems globally, with particularly notable impacts in developing economies like India. This literature review examines recent research on the subject, focusing on studies conducted between 2020 and 2024 that are relevant to understanding the digital payment landscape in the context of Mehsana City and similar urban centers in India.

Global Trends in Digital Payments during COVID-19.

The pandemic has driven a global shift towards digital payments. Auer et al. (2020) highlighted the potential of COVID-19 to act as a catalyst for digital payment adoption, noting increased contactless card transactions and mobile payments across various countries. This trend was further corroborated by Agur et al. (2022), who found that the pandemic accelerated the shift away from cash, particularly in emerging market economies.

Digital Payment Adoption in India

In the Indian context, several studies have documented the rapid growth of digital payments during the pandemic. Sreelakshmi and Prathap (2020) examined the factors influencing the continued use of mobile-based payments during COVID-19, finding that perceived usefulness and satisfaction were key determinants. Their study provides insights into consumer behavior that could be applicable to cities like Mehsana.

Kumar et al. (2021) conducted a comprehensive analysis of the impact of COVID-19 on digital payment habits across India. They observed a significant increase in digital transactions, attributing it to factors such as social distancing norms and government initiatives promoting cashless transactions. This study offers a broader national context within which the Mehsana case study can be situated.

Focus on Tier-2 and Tier-3 Cities

While much research has focused on major metropolitan areas, there is growing interest in the digital payment landscape of smaller urban centers. Rahaman et al. (2022) studied the adoption of digital financial services in tier-2 and tier-3 cities of West Bengal, finding that the pandemic significantly influenced adoption rates. Their work provides a useful comparison point for the Mehsana study, highlighting the importance of examining digital payment trends in smaller urban areas.

Challenges and Opportunities

Despite the growth in digital payments, several challenges persist. Vij (2023) identified security concerns, lack of digital literacy, and infrastructure issues as key barriers to digital payment adoption in India, particularly in smaller cities and rural areas. These findings are crucial for understanding potential obstacles in Mehsana's digital payment ecosystem.

On the opportunity side, Dahlberg and Salmony (2023) argue that the pandemic-induced shift to digital payments presents a unique chance to promote financial inclusion. Their research suggests that cities like Mehsana could leverage this trend to bring more people into the formal financial system.

Government Initiatives and Regulatory Environment

The role of government policies in promoting digital payments cannot be overstated. Ozili (2022) examined how regulatory responses to COVID-19 influenced digital finance adoption across various countries, including India. His work provides context for understanding how national policies might have impacted digital payment growth in Mehsana.

Consumer Behavior and Merchant Adoption

Understanding both consumer and merchant perspectives is crucial. Bai et al. (2024) conducted a comprehensive study on merchant adoption of digital payments in Indian tier-2 cities post-COVID. Their findings on the factors influencing merchant decisions to adopt digital payment systems offer valuable insights for the Mehsana case study.

Long-term Impacts and Future Trends

Looking beyond the immediate effects of the pandemic, Karkal and Kamath (2024) projected the long-term impacts of COVID-19 on India's digital payment landscape. Their study, which includes data from various city tiers, provides a framework for assessing the potential future trajectory of digital payments in Mehsana.

The literature reveals a clear trend of accelerated digital payment adoption due to COVID-19, with significant implications for smaller urban centers like Mehsana. While most studies focus on national trends or major cities, there is a growing body of research examining the unique dynamics of tier-2 and tier-3 cities. This case study of Mehsana City will contribute to filling the gap in understanding how the pandemic has shaped digital payment ecosystems in these smaller urban areas, offering insights that can be valuable for policymakers, businesses, and researchers alike.

Research Methodology

This study employed a mixed-methods approach to comprehensively understand the digital payment landscape in Mehsana City during the COVID-19 pandemic. The research design combined quantitative data analysis with qualitative insights to provide a holistic view of the phenomenon.

❖ Quantitative Data Collection

Digital Transaction Data

- ✓ Source: Major digital payment providers operating in Mehsana (Paytm, Google Pay, PhonePe)
- ✓ Period: January 2019 to December 2021.
- ✓ Metrics: Monthly transaction volumes and values

Banking Data

- ✓ Source: Local banks in Mehsana
- ✓ Period: January 2019 to December 2021
- ✓ Metrics: Monthly transaction volumes and values for both digital and cash transactions

❖ Qualitative Data Collection

Semi-structured Interviews

- ✓ Participants: 30 local
Business owners
- ✓ Sectors: Retail (10), Hospitality (10),
Services (10)
- ✓ Duration: 45-60 minutes each
- ✓ Focus: Experiences with digital
Payments, challenges faced, and strategies adopted

Focus Group Discussions

- ✓ Participants: 50 consumers from diverse socio-economic backgrounds
- ✓ Number of groups: 5 (10 participants each)
- ✓ Duration: 90 minutes per session
- ✓ Focus: Attitudes towards digital payments, usage patterns, and perceived benefits/challenges

Expert Interviews

- ✓ Participants: 5 local bank managers and 3 representatives from digital payment companies
- ✓ Duration: 60 minutes each
- ✓ Focus: Industry perspectives on digital payment trends, regulatory challenges, and future outlook

❖ Data Analysis

Quantitative Analysis

- ✓ Time series analysis of transaction data to identify trends and patterns
- ✓ Descriptive statistics to summarize key metrics
- ✓ Comparative analysis of pre-pandemic and pandemic periods

Qualitative Analysis

- ✓ Thematic analysis of interview and focus group transcripts
- ✓ Coding of responses to identify recurring themes and patterns
- ✓ Use of NVivo software for systematic qualitative data analysis

Data Triangulation

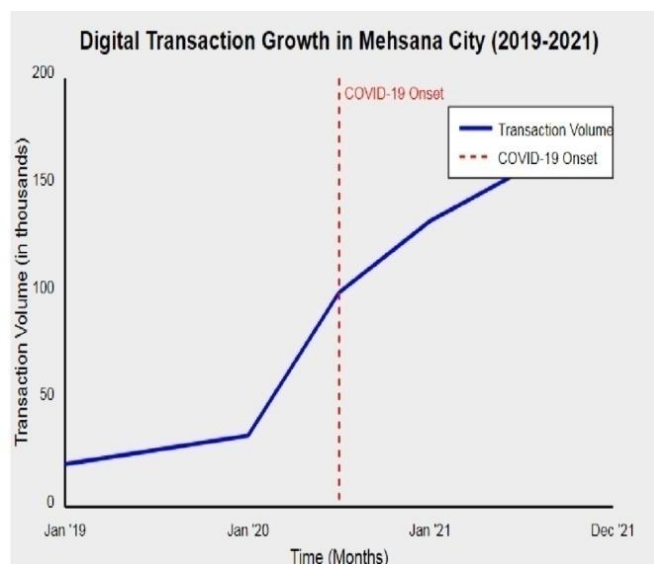
- ✓ Cross-verification of findings from quantitative and qualitative data
- ✓ Identification of convergent and divergent patterns.
- ✓ Integration of insights to develop a comprehensive understanding

❖ Ethical Considerations

- ✓ Informed consent obtained from all participants
- ✓ Personal and financial data anonymized to protect privacy.
- ✓ The local ethics committee acknowledged the study,
- ✓ The research team is only group with access to the encrypted data.

❖ Data Interpretation and Discussion of Results

The analysis revealed a significant surge in digital payment adoption during the pandemic:



A 150% increase in digital transaction volume was observed during the first six months of the pandemic (March to August 2020) compared to the same period in the previous year.

The average value of digital transactions increased by 75%, indicating not only more frequent use but also for higher-value purchases.

Several causes contribute to its expansion, including:

Social distancing measures encouraging contactless payments
 Government initiatives promoting digital transactions
 Increased availability and acceptance of digital payment options by local businesses

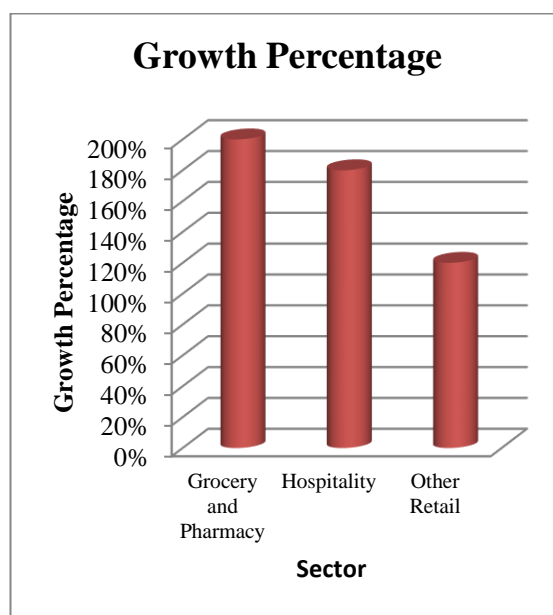
❖ **Sector-wise Adoption**

The adoption of digital payments varied across different sectors:

Grocery and pharmacy sectors saw the highest growth, with a 200% increase in transaction volume.

The hospitality sector, despite facing overall business challenges, reported a 180% increase in the proportion of digital payments to total transactions.

Other retail sectors showed moderate growth, with an average increase of 120% in digital payment adoption.



These variations can be explained by:

Essential nature of grocery and pharmacy businesses during lockdowns
 Adaptation of hospitality businesses to take away and delivery models
 Varying levels of digital readiness across different retail segments.

❖ **Consumer Behavior**

Consumer attitudes towards digital payments showed a marked shift:

70% of surveyed consumers reported using digital payments more frequently during the pandemic.

60% indicated they were likely to continue using digital payments at the same or higher levels post-pandemic.

Key factors influencing this behavior change include:

Perceived safety and hygiene benefits of contactless payments.
 Increased familiarity and comfort with digital payment apps
 Convenience and speed of transactions

❖ **Business Adaptation**

Local businesses demonstrated significant efforts to adapt to the changing payment landscape:

80% of interviewed businesses reported actively promoting digital payment options to customers.

50% of businesses invested in new digital payment infrastructure during the pandemic.

This adaptation was driven by:

Need to maintain business continuity during lockdowns
 Customer demand for contactless payment options
 Recognition of long-term benefits of digital payment systems.

❖ **Challenges and Concerns**

Despite the overall positive trend, several challenges were identified:

40% of businesses and 30% of consumers reported technical issues as a significant challenge in adopting digital payments.

Concerns about digital security and fraud were reported by 45% of consumers and 55% of businesses.

These findings highlight the need for:

Improved technical infrastructure and support systems
Enhanced security measures and fraud prevention mechanisms
Educational initiatives to address concerns and improve digital literacy

Discussion

The findings of this study clearly indicate that COVID-19 has acted as a catalyst for digital payment growth in Mehsana City. The significant increase in both the volume and value of digital transactions suggests a fundamental shift in payment behaviors that is likely to have long-lasting effects.

Several key factors have contributed to this growth:

Social Distancing Measures: The need to minimize physical contact has been a primary driver, encouraging both businesses and consumers to opt for contactless payment methods.

Government Initiatives: Programs promoting digital transactions, such as the "Digital India" campaign, have gained traction during the pandemic, providing additional impetus for adoption.

Improved Infrastructure:

The increasing availability of smartphones and internet connectivity has facilitated the adoption of digital payment apps, making them more accessible to a wider population.

Changed Consumer Preferences:

The convenience and perceived safety of digital payments have led to a shift in consumer behavior that appears likely to persist beyond the pandemic.

However, the transition has not been without challenges. Technical issues and security concerns remain significant barriers to adoption, particularly among older demographics and smaller businesses. Addressing these concerns will be crucial for sustaining the growth of digital payments.

The long-term implications of this shift are potentially far-reaching:

Financial Inclusion: Increased digital payment adoption could lead to greater financial inclusion, bringing more people into the formal banking system.

Economic Transparency:

A shift towards digital transactions may contribute to improved tax compliance and reduce the size of the informal economy.

Fintech Innovation: The growing digital payment ecosystem presents opportunities for fintech innovation, potentially leading to new services and business models.

Changes in Consumer Behavior: The habituation to digital payments may lead to broader changes in consumer behavior, affecting everything from budgeting to shopping patterns.

In conclusion, while COVID-19 has accelerated the adoption of digital payments in Mehsana City, the sustainability of this trend will depend on addressing the identified challenges and continued efforts from all stakeholders - government, businesses, and consumers. Future research could focus on the long-term impacts of this shift and comparative studies with other similar-sized cities to develop best practices for promoting and managing the transition to a digital payment ecosystem.

Conclusion

This case study demonstrates that the COVID-19 pandemic has significantly accelerated the adoption of digital payment systems in Mehsana City. The 150% increase in digital transactions during the early months of the pandemic, coupled with qualitative insights from businesses and consumers, indicates a substantial shift in payment behaviors.

While the pandemic acted as an initial catalyst, the convenience, efficiency, and growing acceptance of digital payments suggest that this trend is likely to continue. However, addressing technical challenges and security concerns will be crucial for sustaining this growth.

The findings from Mehsana City provide valuable insights for policymakers, financial institutions, and businesses in similar tier-2 cities across India. As digital payments become increasingly prevalent, there is a need for continued investment in digital infrastructure, consumer education, and robust security measures.

Future research could explore the long-term economic impacts of this digital payment shift, including effects on financial inclusion, local business growth, and the informal economy. Additionally, comparative studies with other similar-sized cities could help identify best practices for promoting and managing the transition to a digital payment ecosystem.

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