



A Study On the Role of Government Initiatives in Promoting Digital Payment System with Special Reference to Coimbatore District

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Abstract: The rapid growth of digital payment systems has transformed the financial landscape in India, driven largely by proactive government initiatives. This study examines the role of government measures in promoting digital payment adoption with special reference to Coimbatore District. Key initiatives such as Digital India, demonetization, Unified Payments Interface (UPI), and incentives for cashless transactions have significantly influenced consumer behaviour and merchant acceptance. The study analyses awareness levels, usage patterns, and challenges faced by users in adopting digital payments. Data collected from respondents indicate that increased accessibility, convenience, and government support have positively impacted digital payment usage. However, issues such as security concerns, lack of digital literacy, and internet connectivity continue to hinder full adoption. The study concludes that while government initiatives have played a crucial role in accelerating the shift towards a cashless economy, continuous efforts in awareness, infrastructure development, and user education are essential for sustained growth.

Keywords: Digital Payments, Government Initiatives, UPI, Cashless Economy, Digital India

I. INTRODUCTION

Over the past decade, digital payment systems have significantly transformed India's financial landscape, driven by technological advancements and strong government initiatives such as Digital India, UPI, AePS, and PMJDY. These initiatives aim to promote a secure, transparent, and cashless economy while addressing issues like financial exclusion and inefficiencies in traditional systems. Coimbatore district, known for its industrial growth and technological awareness, has witnessed considerable adoption of digital payments across urban and semi-urban areas. However, challenges such as limited digital literacy, infrastructure gaps, and trust issues still persist among certain sections. This study focuses on evaluating the effectiveness of government initiatives in promoting digital payments in Coimbatore district, examining user awareness, adoption levels, and the challenges faced, thereby providing insights for enhancing digital financial inclusion and economic development.

Objectives of The Study

- To know the level of awareness of digital payment systems among the residents and merchants of Coimbatore district.
- To study the factors that affect the use of digital payment systems in the Coimbatore district.
- To assess the benefits derived by users and merchants after adopting digital payment systems.
- To identify the challenges and difficulties encountered by people in using digital payment systems.



Statement of The Problem

India has experienced a swift change in its financial environment with the launch of various government schemes to encourage digital payment systems. Schemes like Digital India, Unified Payments Interface (UPI), Aadhaar Enabled Payment System (AePS), and Pradhan Mantri Jan-Dhan Yojana (PMJDY) were launched to encourage financial inclusion, minimise dependence on cash payments, maximise transparency, and improve the digital economy. However, the use and proper adoption of digital payment systems have not been uniform in various regions and among various sections of society. Although there has been substantial progress in urban areas, some sections of society, including small vendors, rural populations, senior citizens, and those who are less tech-savvy, continue to experience difficulties in adopting digital payment systems. Factors like a lack of awareness, poor infrastructure, internet connectivity issues, cybersecurity risks, and resistance to change have been impeding the widespread adoption of digital payments.

Coimbatore district, being one of the major industrial and commercial centres of Tamil Nadu, has experienced considerable growth in digital payment usage. However, there is a need to systematically examine whether government initiatives have effectively influenced behavioural change among consumers and merchants in this region. It is also important to assess whether these initiatives have addressed the practical challenges faced at the grassroots level. Therefore, the core problem addressed in this study is to analyse the extent to which government initiatives have successfully promoted digital payment systems in Coimbatore district and to identify the factors affecting their adoption and effectiveness. Understanding these aspects is essential for recommending policy improvements and strengthening digital financial inclusion in the district.

II. RESEARCH METHODOLOGY

Research Design:

- Descriptive → to understand awareness and usage of digital payments
- Analytical → to evaluate the impact of government initiatives

DATA COLLECTION

Primary Data

Primary data is collected directly from respondents in Coimbatore District through:

- Structured questionnaires
- Personal interviews

The respondents include consumers, merchants, students, and salaried employee's individuals.

Secondary Data

Secondary data is gathered from various sources, such as:



- Government reports and publications
- RBI reports and official websites
- Journals, articles, and research papers
- Newspapers and online sources

Sampling Method

A convenient sampling method is used to select respondents from different areas of Coimbatore District.

Sample Size

The study is based on a selected number of respondents to analyse awareness and usage of digital payment systems.

Data Collection Tools

The main tool used is a structured questionnaire consisting of both open-ended and close-ended questions.

III. Review Of Literature

1. Raisagar (2024) examined the role of the Digital India Programme in promoting digital payments in India. The study highlighted that the government introduced various digital platforms, such as Unified Payments Interface (UPI) to make transactions faster, secure, and convenient. The research concluded that UPI has significantly transformed the digital payment ecosystem in India, but challenges such as a lack of awareness and security concerns still exist.
2. Kumawat (2024) conducted a study on the digital payment system in India and emphasised that the Government of India has implemented multiple measures to Encourage cashless transactions. The study pointed out that digital payment modes such as debit cards, credit cards, internet banking, mobile wallets, and UPI play a vital role in developing a faceless, paperless, and cashless economy.

IV. CHI-SQUARE ANALYSIS — HYPOTHESIS TESTING

Chi-Square Analysis is the second statistical tool used in this study, as specified in Chapter I. It is applied to test whether there exists a statistically significant association between demographic variables and digital payment-related outcomes. The test statistic is calculated using the formula:

$$\chi^2 = \sum [(O - E)^2 / E]$$

Where O = Observed Frequency and E = Expected Frequency. The null hypothesis (H_0) is tested at 5% level of significance ($p < 0.05$). If the calculated Chi-Square value is greater than the table value (i.e., $p < 0.05$), the null hypothesis is rejected, and a significant association is concluded.



Hypothesis 1: Association Between Age Group and Frequency of Digital Payment Usage

H₀: There is no significant association between the age group of respondents and their frequency of digital payment usage.

H₁: There is a significant association between the age group of respondents and their frequency of digital payment usage.

CHI-SQUARE TEST — AGE GROUP AND FREQUENCY OF USAGE

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
Age Group vs. Frequency of Digital Payment Usage	4.992	12	0.9583	H ₀ Accepted

Source: Primary

INTERPRETATION;

The table shows the Chi-Square value of 4.992 with 12 degrees of freedom and a p-value of 0.9583, which is greater than 0.05. Therefore, H₀ is accepted. There is no statistically significant association between the age group of respondents and their frequency of digital payment usage. This suggests that digital payment usage has become widespread across all age groups in the Coimbatore district, irrespective of age differences.

Hypothesis 2: Association Between Educational Qualification and Awareness Level

H₀: There is no significant association between the educational qualification of respondents and their level of awareness of digital payment systems.

H₁: There is a significant association between the educational qualification of respondents and their level of awareness of digital payment systems.

CHI-SQUARE TEST — EDUCATION AND AWARENESS LEVEL

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
Educational Qualification vs. Awareness of Digital Payments	6.439	8	0.5982	H ₀ Accepted

Source: Primary

INTERPRETATION;

The table presents a Chi-Square value of 6.439 with 8 degrees of freedom and a p-value of 0.5982, which is greater than 0.05. Therefore, H₀ is accepted. There is no statistically significant association between



educational qualification and awareness level. This is an important finding suggesting that government awareness campaigns have successfully reached respondents across all educational levels in the Coimbatore district.

Hypothesis 3: Association Between Income Level and Preferred Digital Payment Mode

H₀: There is no significant association between the monthly income level of respondents and their preferred digital payment mode.

H₁: There is a significant association between the monthly income level of respondents and their preferred digital payment mode.

CHI-SQUARE TEST — INCOME LEVEL AND PREFERRED PAYMENT MODE

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
Monthly Income Level vs. Preferred Digital Payment Mode	19.209	20	0.5083	H ₀ Accepted

Source: Primary

INTERPRETATION;

The table reports a Chi-Square value of 19.209 with 20 degrees of freedom and a p- value of 0.5083, which is greater than 0.05. Therefore, H₀ is accepted. There is no statistically significant association between income level and the preferred digital payment mode. UPI dominates as the preferred mode across all income categories, confirming that UPI's zero- transaction-cost model has made it universally accessible regardless of income level.

Hypothesis 4: Association Between Area of Residence and Difficulty Faced

H₁: There is a significant association between the area of residence of respondents and respondents and the difficulty faced in using digital payment systems.

H₀: There is no significant association between the area of residence (urban/peri- urban/rural) of the difficulty faced in using digital payment systems.

CHI-SQUARE TEST — AREA OF RESIDENCE AND DIFFICULTY FACED

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
Area of Residence vs. Difficulty Faced in Digital Payments	9.663	6	0.1396	H ₀ Accepted

Source: Primary INTERPRETATION



The table shows a Chi-Square value of 9.663 with 6 degrees of freedom and a p-value of 0.1396, which is greater than 0.05. Therefore, H_0 is accepted. There is no statistically significant association between the area of residence and difficulty faced. While rural users do face more practical challenges, the sample data does not establish a statistically significant difference, indicating that challenges like cybersecurity concerns and transaction failures cut across all residential areas equally.

Hypothesis 5: Association Between Gender and Overall Satisfaction Level

H_0 : There is no significant association between the gender of respondents and their overall satisfaction level with digital payment systems.

H_1 : There is a significant association between the gender of respondents and their overall satisfaction level with digital payment systems.

CHI-SQUARE TEST — GENDER AND OVERALL SATISFACTION

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
Gender vs. Overall Satisfaction with Digital Payment Systems	4.709	8	0.7882	H_0 Accepted

Source: Primary

INTERPRETATION

The table presents a Chi-Square value of 4.709 with 8 degrees of freedom and a p-value of 0.7882, which is greater than 0.05. Therefore, H_0 is accepted. There is no statistically significant association between gender and overall satisfaction with digital payment systems. This finding indicates that digital payment platforms in the Coimbatore district are perceived similarly by both male and female users, reflecting successful gender-neutral design and outreach by government initiatives.

CONSOLIDATED CHI-SQUARE ANALYSIS SUMMARY SUMMARY OF CHI-SQUARE HYPOTHESIS TEST RESULTS

Hypothesis	Chi-Square Value	df	p-value	Result (5% level)
H_{01} : No association between Age Group and Usage Frequency	4.992	12	0.9583	Accepted
H_{02} : No association between Education and Awareness Level	6.439	8	0.5982	Accepted



H ₀ 3: No association between Income Level and Preferred Mode	19.209	20	0.5083	Accepted
H ₀ 4: No association between Area of Residence and Difficulty Faced	9.663	6	0.1396	Accepted
H ₀ 5: No association between Gender and Overall Satisfaction	4.709	8	0.7882	Accepted

The table consolidates all five Chi-Square test results. All five null hypotheses are accepted at the 5% level of significance, indicating that demographic variables such as age, gender, education, income, and area of residence do not significantly influence digital payment behaviour in isolation. This is a positive finding for policy-makers, as it suggests that government digital payment initiatives have achieved broad-based, demographically neutral adoption in the Coimbatore district.

V. Findings Chi-Square Analysis

This chapter analysed primary data collected from 120 respondents in Coimbatore district using two statistical tools — Simple Percentage Analysis and Chi-Square Analysis — as prescribed in Chapter I.

The Simple Percentage Analysis revealed that 84.17% of respondents are aware of digital payment systems, and 74.16% are active users. UPI-based apps dominate as the most preferred digital payment mode (47.50%). Convenience is the primary reason for adoption (37.50%), while 61.67% acknowledge that government initiatives played a role in motivating their adoption. The perceived benefits are high, with a mean composite Benefits Score of 37.71 out of 50. Cybersecurity concerns (61.67%) and lack of digital literacy (34.17%) emerge as the leading challenges.

The Chi-Square Analysis tested five hypotheses and found that none of the demographic variables — age, education, income, area of residence, or gender — showed a statistically significant association with digital payment behaviour at the 5% level of significance. This confirms that government digital payment initiatives in Coimbatore district have achieved broad, inclusive adoption, cutting across demographic boundaries.

Overall, the findings of this chapter provide a strong empirical foundation for the conclusions and recommendations presented in Chapter V.

VI. Conclusion

This study examined the role of government initiatives in promoting digital payment systems with special reference to the Coimbatore district. The findings reveal that awareness of digital payments is significantly high among respondents, with a majority being either fully or moderately aware. UPI has emerged as the most widely recognised and preferred digital payment method, underscoring its dominant position in the digital ecosystem. Government initiatives such as demonetisation, Digital India, and UPI promotion have



played a crucial role in accelerating the adoption of digital payments. A large proportion of respondents acknowledged that these initiatives motivated them to shift towards cashless transactions. The study also found that digital payments are widely used across different age groups, income levels, educational backgrounds, and genders, indicating inclusive growth. The perceived benefits of digital payments—such as convenience, time savings, and reduced risk of theft—are well recognised by users. However, challenges such as cybersecurity concerns, lack of trust, transaction failures, and limited digital literacy still persist. Additionally, barriers like poor internet connectivity and a lack of awareness hinder wider adoption, especially in rural and semi-urban areas. Overall, the study concludes that government initiatives have been effective in promoting digital payment systems in Coimbatore district, but continuous efforts are required to address existing challenges and ensure sustainable and inclusive digital growth.

Reference

1. Raisagar, A. (2024). Role of Digital India Programme in promoting digital payments in India. *International Journal of Research in Finance and Management*
2. Kumawat, R. (2024). A study on digital payment systems in India. *Journal of Financial Services and Technology*
3. Dubey, S., Bajpai, R., & Khatik, M. (2024). Impact of demonetization on digital payment systems in India. *International Journal of Economics and Business Research*,
4. Singh, P., & Tyagi, N. (2024). Consumer adoption of digital payments in India. *Journal of Commerce and Management Studies*
5. Bala, K., & Sharma, V. (2025). Factors influencing digital payment adoption in India. *Journal of Banking and Financial Technology*