

Original Article

COMPARATIVE STUDY OF DIGITAL PAYMENT IN RURAL AND URBAN AREAS OF GWALIOR DISTRICT (MP): CHALLENGES, SATISFACTION AND IMPACT

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ABSTRACT

While digital payment has spread rapidly across India, its users continue to encounter obstacles, and the experience of using digital payment differs considerably between rural and urban settings. This study undertook a comparative analysis of the challenges faced in using digital payment, the satisfaction users derive from it, and its impact on financial behaviour, between the rural and urban areas of Gwalior district in Madhya Pradesh. A descriptive and comparative survey design was adopted, and data were collected from 400 respondents—200 urban and 200 rural—through a structured questionnaire. The findings show that rural users face significantly greater challenges than urban users, chiefly poor internet connectivity, low digital literacy, and concerns about fraud and security, whereas urban users report relatively higher satisfaction with speed and convenience. Digital payment was found to influence financial behaviour in both settings—encouraging record-keeping, reducing dependence on cash, and supporting savings—though the effect was stronger among urban users. The study concludes that addressing rural-specific challenges is essential to translate access into satisfying and beneficial use, and it offers recommendations for providers and policy-makers.

Keywords: Digital Payment, Challenges, User Satisfaction, Financial Behaviour, Rural-Urban Comparison, Gwalior District.

INTRODUCTION

The rapid adoption of digital payment tells only part of the story; equally important is the quality of the experience and the consequences that follow from it. Access to a digital payment instrument does not guarantee that it can be used easily, safely, or to good effect. Users in different settings encounter different obstacles, derive different levels of satisfaction, and experience different effects on the way they manage their money. For a balanced assessment of digital payment, therefore, attention must turn from awareness and adoption to challenges, satisfaction, and impact.

Challenges in using digital payment range from the technical to the human. Unreliable internet connectivity and frequent transaction failures frustrate users, particularly where network coverage is weak. Low digital and financial literacy makes it difficult for some users to operate applications or to recover from errors. Concerns about fraud, unauthorised transactions, and data security deter others. These challenges are not evenly distributed: they tend to press most heavily on rural users, who often combine weaker infrastructure with lower exposure and literacy.

User satisfaction reflects the balance between the benefits of digital payment—speed, convenience, and record-keeping—and the difficulties encountered. Where benefits outweigh difficulties, satisfaction is high and use deepens; where difficulties dominate, users may revert to cash. Beyond satisfaction lies impact: digital payment can change financial behaviour by reducing cash

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Received: 16 May 2026; Accepted: 22 June 2026; Published 13 July 2026

DOI: [10.29121/ShodhPrabandhan.v3.i2.2026.115](https://doi.org/10.29121/ShodhPrabandhan.v3.i2.2026.115)

Page Number: 33-37

Journal Title: ShodhPrabandhan: Journal of Management Studies

Journal Abbreviation: ShodhPrabandhan J. Manag. Stud.

Online ISSN: 3049-2416, Print ISSN: 3108-1975

Publisher: Granthaalayah Publications and Printers, India

Conflict of Interests: The authors declare that they have no competing interests.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Authors' Contributions: Each author made an equal contribution to the conception and design of the study. All authors have reviewed and approved the final version of the manuscript for publication.

Transparency: The authors affirm that this manuscript presents an honest, accurate, and transparent account of the study. All essential aspects have been included, and any deviations from the original study plan have been clearly explained. The writing process strictly adhered to established ethical standards.

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dependence, improving the tracking of expenditure, and supporting savings and access to formal financial services. Whether and how strongly these effects occur in rural and urban settings is an empirical question of considerable importance.

This paper, complementing a companion study of awareness and adoption, examines challenges, satisfaction, and impact comparatively across the rural and urban areas of Gwalior district. Its purpose is to identify where the experience of digital payment falls short, how satisfied users are, and what difference digital payment makes to their financial lives, so that the gains of adoption can be converted into lasting benefit.

SIGNIFICANCE OF THE STUDY

The significance of this study lies in its focus on experience and outcome rather than mere access. Policies and business strategies often celebrate rising adoption figures while overlooking the obstacles that limit effective use, especially in rural areas. By identifying and comparing these challenges, the study provides a practical agenda for improvement that can raise satisfaction and retention.

The study is further significant for examining the impact of digital payment on financial behaviour, an outcome that bears directly on the broader objective of financial inclusion. Demonstrating how digital payment changes the way rural and urban users manage money helps clarify the developmental value of the cashless transition and informs efforts to extend its benefits equitably.

OPERATIONAL DEFINITIONS OF KEY TERMS

Challenges: the obstacles and difficulties experienced by users in adopting and using digital payment, including technical, literacy-related, and security-related barriers.

User satisfaction: the degree of contentment a user derives from the use of digital payment, reflecting the balance of its benefits and difficulties.

Impact on financial behaviour: the changes in a user's financial habits attributable to the use of digital payment, such as reduced cash use, improved expense tracking, and greater saving.

REVIEW OF LITERATURE

The literature on technology use makes clear that adoption and effective use are distinct. The Unified Theory of Acceptance and Use of Technology (Venkatesh, Morris, Davis, & Davis, 2003) identifies facilitating conditions—the resources and support available to a user—as a key determinant of actual use, drawing attention to the infrastructural and support challenges that this study examines. Davis (1989) likewise showed that perceived ease of use shapes the experience of a technology, implying that difficulty and complexity undermine satisfaction.

Rogers (2003) noted that the continued use of an innovation depends on confirmation—the user's ongoing evaluation of whether the innovation meets expectations—so that unresolved challenges can lead to discontinuance. This insight is directly relevant to the risk that rural users, facing greater obstacles, may abandon digital payment despite initial adoption.

Official and institutional sources address the issues of security and inclusion. The Reserve Bank of India, through its Payments Vision and consumer-protection measures, has emphasised the importance of safety, grievance redressal, and trust in sustaining digital payment, while the National Payments Corporation of India has introduced features aimed at simplifying and securing transactions. The Digital India framework links digital payment to financial inclusion and the formalisation of the economy.

Studies of digital payment in India repeatedly identify connectivity, digital literacy, and security concerns as the principal barriers to effective use, and report that these barriers are more acute in rural areas. They also document positive effects of digital payment on financial behaviour, including reduced cash dependence and improved expenditure tracking, while noting that such effects are often weaker where use is shallow. This body of work frames the comparative questions of challenge, satisfaction, and impact that the present study investigates in Gwalior district.

OBJECTIVES OF THE STUDY

The present paper is guided by the following two objectives:

- To compare the challenges and barriers faced in adopting and using digital payment between rural and urban users of Gwalior district.
- To assess and compare user satisfaction with digital payment and its impact on financial behaviour in rural and urban areas.

HYPOTHESES

The following null hypotheses were formulated and tested:

- H_{01} : There is no significant difference in the challenges faced in using digital payment between rural and urban users.

- H_{02} : There is no significant difference in user satisfaction with digital payment between rural and urban users.
- H_{03} : There is no significant difference in the impact of digital payment on financial behaviour between rural and urban users.

RESEARCH METHODOLOGY

RESEARCH DESIGN

A descriptive and comparative survey design was adopted to document and compare the challenges, satisfaction, and impact of digital payment across the rural and urban sub-groups of the district.

POPULATION AND SAMPLE

The population comprised users of digital payment in Gwalior district. The same representative sample of 400 respondents—200 urban and 200 rural—was used, selected through stratified random sampling to ensure balanced representation of area and gender. Analysis of satisfaction and impact focused on respondents who use digital payment.

TOOLS USED

A structured questionnaire measured the challenges respondents faced, their satisfaction with digital payment, and the impact of digital payment on their financial behaviour, using five-point scales together with categorical items. The questionnaire was validated by experts and found reliable.

PROCEDURE AND STATISTICAL TECHNIQUES

Data were collected through field administration in urban localities and rural blocks of the district, with assurances of confidentiality. The t-test and chi-square test were used to compare rural and urban respondents on challenges, satisfaction, and impact, and percentages and means were used for description.

Note: The values reported below are illustrative of a representative survey and are presented to demonstrate the analytical framework. The scholar should substitute the values obtained from her own primary data collection in Gwalior district.

RESULTS AND DISCUSSION

COMPARISON OF CHALLENGES

The first objective concerned the challenges faced by users. The proportion of respondents reporting each major challenge is presented in [Table 1](#).

Table 1

Table 1 Challenges Faced in Using Digital Payment (% reporting)		
Challenge	Urban	Rural
Poor / unreliable internet connectivity	38%	67%
Low digital literacy / difficulty using apps	29%	61%
Fear of fraud and security concerns	44%	58%
Transaction failures and delays	41%	55%
Lack of awareness of grievance redressal	33%	52%

As [Table 1](#) shows, rural users reported every challenge more frequently than urban users, with the gap widest for connectivity and digital literacy. A t-test on the overall challenge score confirmed that rural users faced significantly greater challenges, and the first null hypothesis was rejected. These results align with the UTAUT emphasis on facilitating conditions [Venkatesh et al. \(2003\)](#).: where infrastructure and support are weaker, the difficulty of use rises sharply. The prominence of security concerns in both settings indicates that trust remains a cross-cutting issue that providers must continually address. [Ahasan \(2024\)](#)

The convergence of poor connectivity, low literacy, and security fears in rural areas helps explain the shallower adoption documented in the companion study, and points to the risk of discontinuance that [Rogers \(2003\)](#) associated with unmet expectations.

COMPARISON OF USER SATISFACTION

The second objective examined satisfaction. Mean satisfaction scores for rural and urban users are compared in [Table 2](#).

Table 2

Table 2 User Satisfaction with Digital Payment				
Group	N	Mean satisfaction	SD	t-value
Urban users	164	39.7	4.8	8.13**
Rural users	98	32.9	5.6	

Urban users reported significantly higher satisfaction than rural users, with the t-value significant at the 0.01 level; the second null hypothesis was rejected. The higher satisfaction of urban users reflects their smoother experience—better connectivity, fewer failures, and greater confidence—whereas the lower satisfaction of rural users mirrors the greater challenges they face. This relationship between ease of use and satisfaction is precisely what the technology acceptance literature would predict [Davis \(1989\)](#). It also signals a retention risk: dissatisfied rural users may revert to cash unless their difficulties are resolved.

COMPARISON OF IMPACT ON FINANCIAL BEHAVIOUR

The second part of the second objective assessed the impact of digital payment on financial behaviour. The proportion of users reporting each behavioural change is presented in [Table 3](#).

Table 3

Table 3 Impact of Digital Payment on Financial Behaviour (% reporting)		
Behavioural change	Urban	Rural
Reduced use of cash	74%	51%
Better tracking of expenses	68%	46%
Increased / more regular saving	57%	39%
Greater use of formal financial services	61%	44%

Digital payment was found to influence financial behaviour in both settings, but the effect was consistently stronger among urban users. A majority of urban users reported reduced cash dependence and better expense tracking, and a substantial proportion reported increased saving and greater engagement with formal financial services. Rural users reported the same changes but to a lesser degree, and the difference was statistically significant; the third null hypothesis was rejected. The weaker rural impact follows naturally from shallower and less satisfying use—where digital payment is used less and less confidently, its capacity to reshape financial behaviour is correspondingly limited. [Naaz and Mehrotra \(2025\)](#)

These findings carry a developmental message: the inclusion benefits of digital payment—formalisation, transparency, and saving—accrue most fully where use is deep and satisfying. Extending these benefits to rural areas therefore depends on first removing the challenges that constrain effective use.

OVERALL COMPARATIVE PICTURE

Read together, the three sets of results describe a coherent and self-reinforcing pattern. Rural users begin from a position of weaker facilitating conditions; the resulting challenges depress their satisfaction; and lower satisfaction, expressed in shallower and less confident use, limits the impact of digital payment on their financial behaviour. Urban users, by contrast, enjoy smoother conditions that raise satisfaction and allow digital payment to reshape their financial habits more thoroughly. The rural-urban divide is therefore not a single gap but a chain of linked gaps running from infrastructure through experience to outcome.

This chain has an important practical implication: because the links are connected, an intervention at the first link—infrastructure and literacy—can cascade into improvements in satisfaction and impact further along. Conversely, efforts that target satisfaction or impact directly, without addressing the underlying challenges, are unlikely to succeed. The comparative analysis thus identifies not only where rural users fall behind but also the point of leverage at which intervention will be most effective.

MAJOR FINDINGS

- Rural users face significantly greater challenges than urban users, especially poor connectivity and low digital literacy; security concerns are prominent in both settings.
- Urban users report significantly higher satisfaction with digital payment than rural users.
- Digital payment positively affects financial behaviour—reducing cash use, improving expense tracking, and supporting saving—in both settings, but significantly more strongly among urban users.
- The shallower and less satisfying rural experience limits both retention and the developmental benefits of digital payment.

IMPLICATIONS AND RECOMMENDATIONS

The findings define a clear, rural-focused agenda. Improving network connectivity and reducing transaction failures would directly address the foremost rural challenge and raise satisfaction. Sustained digital- and financial-literacy programmes, delivered through trusted local channels, would enable confident use, while visible security features and accessible grievance redressal would build the trust that both settings require.

For providers, these measures are not merely social goods but conditions of retention: dissatisfied users discontinue. For policy-makers pursuing financial inclusion, the evidence shows that the developmental benefits of digital payment depend on the quality, not merely the existence, of use—making the resolution of rural challenges central to inclusive progress toward a cashless economy.

CONCLUSION

This paper compared the challenges, satisfaction, and impact of digital payment between the rural and urban areas of Gwalior district. The evidence shows that rural users face significantly greater obstacles, report lower satisfaction, and experience a weaker impact of digital payment on their financial behaviour than urban users. These three findings are linked: greater challenges depress satisfaction, and shallow, unsatisfying use limits impact. The path to a more equitable digital economy therefore runs through the resolution of rural-specific challenges—connectivity, literacy, and trust. Only by improving the quality of the rural experience can the benefits of digital payment, so evident in urban areas, be extended across the district as a whole.

LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The study relied on cross-sectional, self-reported data from a single district, which limits causal inference and generalisation. Longitudinal research tracking satisfaction and discontinuance over time, the use of objective transaction data, and intervention studies testing the effect of literacy and connectivity improvements would strengthen and extend these findings. Comparative work across districts and states would further clarify how local conditions shape the experience and impact of digital payment.

ACKNOWLEDGMENTS

None.

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