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Impact of Mobile Payment Systems on Consumer Spending Behaviour in Rural Areas of Chhattisgarh

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Abstract

The financial behaviour of consumers across India, including rural India, has been transformed by rapid growth of digital payment system. The present study explore how mobile payment system on spending behaviour of consumer in rural areas of Chhattisgarh. Primary data for the study were collected from 100 respondents using a structured questionnaire and convenience sampling technique. Descriptive statistics, reliability analysis, Spearman's rank correlation, and the Chi-square test were employed using SPSS software. The findings reveal that mobile payment usage significantly influences consumer spending behaviour, increases small and unnecessary expenses, and reduces savings among rural consumers. The study also shows a strong preference for mobile payments over cash transactions, with PhonePe emerging as the most widely used application. The growing role of digital payments in promoting financial inclusion while simultaneously reshaping consumption pattern in rural India is highlighted by the results.

Keywords: Mobile Payments, Consumer Spending Behaviour, Rural Consumers, Digital Finance, Chhattisgarh, Financial Inclusion.

1. Introduction

The increasing penetration of smartphones and internet connectivity has accelerated the adoption of mobile payment systems in rural India. Digital payment platforms such as PhonePe, Google Pay, and Paytm have simplified financial transactions by providing convenient, fast, and secure payment methods. The Government of India's initiatives towards a cashless economy and financial inclusion have further encouraged the use of digital payments among rural households.

Previous studies suggest that digital payments influence consumer spending behaviour by reducing transaction friction and the psychological pain associated with cash payments (Dev et al., 2024). Research in rural India has highlighted the importance of convenience, trust, and ease of use as major factors influencing mobile payment adoption (Sharma & Mishra, 2022; Chopra et al., 2024). International evidence from China also indicates that mobile payment systems increase household consumption and alter savings patterns through improved financial accessibility (Zhao et al., 2021; Yang et al., 2022).

Despite the growing importance of digital payments, limited studies have specifically examined their effects on consumer spending behaviour in rural areas of Chhattisgarh. Therefore, this study attempts to analyse how mobile payment systems influence spending habits, savings patterns, and payment preferences among rural consumers in the state.

2. Review of Literature

2.1 Mobile Payment Systems and Consumer Spending Behaviour

Several studies have investigated the relationship between mobile payment systems and consumer spending behaviour. Sharma (2022), Chopra (2024), and Kumar (2024) found that digital payment users in India engage in more frequent transactions and exhibit greater tendencies toward impulsive purchases than consumers relying on cash payments. The studies highlighted that convenience, ease of use, and accessibility significantly influence digital payment adoption and spending behaviour. Similarly, Srinivasa (2026), Raj (2025), and Dev (2024) reported that mobile payments reduce transaction friction and the psychological pain associated with spending, thereby increasing consumers' willingness to make routine and spontaneous purchases.

Evidence from other developing countries supports these findings. Zhao (2021), Yang (2022), and Hu (2024) demonstrated that mobile payment systems significantly increased rural household consumption in China by lowering transaction costs, easing liquidity constraints, and expanding consumer choices. The impact was particularly strong among economically vulnerable households, indicating the transformative role of digital financial services in rural economies.

2.2 Mobile Payment Systems and Savings Behaviour

The relationship between mobile payment usage and savings behaviour remains inconclusive in the existing literature. Studies conducted in rural China found that mobile payment adoption contributes to higher consumption levels and lower household savings rates because of improved financial access and reduced transaction costs (Zhao, 2021; Zhao, 2022; Huang, 2023). In contrast, research from Uganda, Burkina Faso, Bangladesh, and Kenya reported that mobile money services encourage saving behaviour, particularly among low-income and financially excluded populations, by providing secure and convenient savings mechanisms (Ggombe-Kasim-Munyegera, 2015; Ky, 2018; Yeasmin, 2023).

However, some studies have identified negative or insignificant effects of mobile payment systems on savings. Reddy (2024) found that mobile wallet users in Fiji were less likely to maintain traditional bank savings accounts and tended to prioritise spending over saving. Similarly, Wieser (2019) observed that the expansion of mobile money agents in Northern Uganda did not significantly increase household savings. These contrasting findings indicate that the influence of digital payments on savings behaviour is highly context-dependent.

2.3 Preference for Mobile Payments over Cash in Rural Areas

The literature also suggests a growing preference for mobile payments over traditional cash transactions among rural consumers. Wahbi (2024) reported that farmers in Mali preferred mobile applications for managing savings rather than holding physical cash. Likewise, Amugune (2025) found that rural Kenyan women relied more heavily on mobile money platforms than on conventional banking channels for daily transactions. In China, Chen (2022) observed that digital payments had become the most widely used digital financial service among rural households, with adoption rates reaching 61.74 percent by 2019.

These findings demonstrate that convenience, trust, accessibility, and lower transaction costs are major factors driving the preference for mobile payments in rural communities. The increasing reliance on digital

financial services indicates a gradual transition from cash-based to technology-driven financial systems.

2.4 Research Gap

Although previous studies have extensively examined digital payment adoption, consumer spending behaviour, and savings patterns, limited research has focused specifically on rural areas of Chhattisgarh. Most Indian studies emphasise adoption determinants rather than the direct effects of mobile payments on spending and savings behaviour. Moreover, empirical evidence regarding rural consumers' preference for mobile payments over cash remains scarce. Therefore, this study seeks to bridge this gap by analysing the impact of mobile payment systems on consumer spending behaviour, savings patterns, and payment preferences among consumers in rural areas of Chhattisgarh.

3. Objectives of the Study

1. To identify the most commonly used mobile payment applications among consumers in rural areas of Chhattisgarh.
2. To examine the frequency and purposes of mobile payment usage among rural consumers.
3. To analyse the impact of mobile payment systems on the spending behaviour and savings patterns of consumers in rural areas of Chhattisgarh.
4. To assess the preference of rural consumers for mobile payments over cash transactions.

4. Hypotheses of the Study

- H_{01}: Mobile payment systems have no significant impact on the spending behaviour of consumers in rural areas of Chhattisgarh
  H_{11}: Mobile payment systems have a significant impact on the spending behaviour of consumers in rural areas of Chhattisgarh.
- H_{02}: Mobile payment systems do not significantly affect the savings pattern of rural consumers.
  H_{12}: Mobile payment systems significantly affect the savings pattern of rural consumers.
- H_{03}: There is no significant preference for mobile payments over cash transactions among rural consumers.
  H_{13}: There is a significant preference for mobile payments over cash transactions among rural consumers.

5. Research Methodology

The present study adopts a descriptive and analytical research design to examine the impact of mobile payment systems on consumer spending behaviour in rural areas of Chhattisgarh. The study is based on primary data collected through a structured questionnaire. A total of 100 valid responses were obtained using the convenience sampling method. The questionnaire included questions related to demographic characteristics, mobile payment usage, spending behaviour, savings patterns, and preference for mobile payments over cash. Data analysis was carried out using SPSS. Descriptive statistics, reliability analysis, Spearman's rank correlation, and the Chi-square test were employed to achieve the objectives of the study and test the hypotheses. The reliability of the scale was confirmed through Cronbach's Alpha (0.727), indicating acceptable internal consistency.

6. Results and Analysis

6.1 Demographic Profile of Respondents

Table 1: Demographic Characteristics of Respondents (N = 100)

Variable	Category	Frequency	Percentage (%)
Age	18–25 years	48	48
	26–35 years	34	34
	36 years and above	18	18
Gender	Male	69	69
	Female	31	31
Education	Matric	9	9
	Intermediate	90	90
Occupation	Student	34	34
	Salaried	39	39
	Business	9	9
	Other	18	18

The finding indicate that the majority of respondents belong to 18-25 year age group (48%). Male respondents constitute 69% of the sample, while 90% have completed intermediate education. Salaried employees account for 39% of the respondents, and student's represent34%, making them the two largest occupational groups.

6.2 Mobile Payment Usage Pattern

Table 2: Mobile Payment Usage among Respondents (N = 100)

Variable	Category	Frequency	Percentage (%)
Most Used App	PhonePe	85	85
	Google Pay	15	15
Frequency of Use	Less than 2	18	18
	2–5	55	55
	6–10	18	18
	More than 10	9	9
Purpose of Use	Shopping	24	24
	Bill Payment	18	18
	Money Transfer	9	9
	Other	49	49

PhonePe is the most widely used mobile payment application (85%). More than half of the respondents (55%) use mobile payments two to five times, while 49% use them for various purposes other than shopping, bill payments, and money transfers.

6.3 Reliability and Validity Analysis

Table 3: Reliability Statistics

Cronbach's Alpha	Number of Items
0.727	5

The Cronbach's Alpha value of 0.727 indicates acceptable internal consistency among the measurement items.

Table 4: Composite Reliability and AVE

Measure	Value	Threshold
Composite Reliability (CR)	0.887	> 0.70
Average Variance Extracted (AVE)	0.724	> 0.50

The CR and AVE values confirm the reliability and convergent validity of the measurement scale.

Hypothesis Testing

H_{01}: Mobile payment systems have no significant impact on consumer spending behaviour in rural areas of Chhattisgarh.

Table 5: Spearman Correlation between Mobile Payment Frequency and Spending Behaviour

Variables	Frequency	Small Expenses	Unnecessary Expenses
Frequency	1.000	0.740	0.300
Small Expenses	0.740	1.000	0.253
Unnecessary Expenses	0.300	0.253	1.000

Significant at the 5% level ($p < 0.05$).

The correlation analysis shows a strong positive relationship between mobile payment frequency and small expenses ($r = 0.740$, $p < 0.05$). A positive relationship is also observed between mobile payment frequency and unnecessary expenses ($r = 0.300$, $p < 0.05$). Therefore, the null hypothesis is rejected, indicating that mobile payment systems significantly influence consumer spending behaviour.

H_{02}: Mobile payment systems do not significantly affect the savings pattern of rural consumers.

Table 6: Spearman Correlation between Mobile Payment Frequency and Savings Reduction

Variables	Frequency	Savings Reduced
Frequency	1.000	0.473
Savings Reduced	0.473	1.000

Significant at the 5% level ($p < 0.05$).

The results reveal a moderate positive relationship between mobile payment frequency and reduced savings ($r = 0.473$, $p < 0.05$). Hence, the null hypothesis is rejected, suggesting that increased use of mobile payment systems is associated with lower savings among rural consumers.

H_{03}: There is no significant preference for mobile payments over cash transactions among rural consumers.

Table 7: Chi-Square Statistics

Statistic	**Value**
Chi-Square (χ^2)	59.909
Degrees of Freedom	3
p-value	0.000
Statistic	Value

Since the p-value is less than 0.05, the null hypothesis is rejected. This indicates that rural consumers significantly prefer mobile payments over cash transactions.

7. Discussion

The findings of the study support earlier research on the influence of mobile payment systems on consumer behaviour. The positive relationship between payment frequency and spending behaviour is consistent with the findings of Sharma (2022), Chopra (2024), and Kumar (2024), who reported that digital payment users engage in more frequent purchases and impulse spending. Similarly, Srinivasa (2026), Raj (2025), and Dev (2024) argued that mobile payments reduce transaction friction and the psychological pain of paying, thereby encouraging higher consumption.

The study also finds that increased use of mobile payments is associated with reduced savings among rural consumers. This result is in line with the studies of Zhao (2021), Zhao (2022), and Huang (2023), which showed that mobile payment adoption increased household consumption and lowered savings in rural China. However, the findings differ from those of Ggombe-Kasim-Munyegera (2015), Ky (2018), and Yeasmin (2023), who found that mobile money services encouraged savings among financially excluded populations. The difference may be due to variations in financial literacy, economic conditions, and the usage patterns of digital payment services.

The significant preference for mobile payments over cash observed in this study also supports previous international evidence. Wahbi (2024) found that rural consumers preferred mobile applications to traditional cash-based transactions, while Amugune (2025) reported greater reliance on mobile money than formal banking services in rural communities. Similarly, Chen (2022) observed widespread adoption of digital payments among rural households in China. The findings of the present study indicate that rural consumers in Chhattisgarh are increasingly shifting toward digital payment systems because of convenience, accessibility, and ease of use.

Overall, the study demonstrates that mobile payment systems are transforming spending patterns, savings behaviour, and payment preferences among rural consumers, thereby contributing to the broader process of digital financial inclusion in India.

8. Findings of the Study

- PhonePe is the most commonly used mobile payment application among rural consumers.
- Most respondents use mobile payment systems two to five times regularly.
- Mobile payment usage significantly increases small and unnecessary expenditures.
- Frequent use of mobile payments is associated with reduced savings.
- Rural consumers prefer mobile payments over traditional cash transactions.

9. Suggestions

- Financial literacy programmes should be conducted to promote responsible digital spending.
- Awareness campaigns should encourage consumers to maintain savings alongside digital payment usage.
- Digital payment providers should incorporate budgeting and spending-monitoring features.
- Government initiatives should continue to improve digital infrastructure in rural areas.
- Training programmes should be organized to enhance digital financial inclusion among rural households.

10. Conclusion

Mobile payment systems have significantly transformed consumer spending behaviour in rural areas of Chhattisgarh. The study finds that increased usage of mobile payments encourages higher spending, influences savings patterns, and creates a strong preference for cashless transactions. While digital payments contribute to financial inclusion and convenience, they may also encourage impulsive consumption and lower savings if not managed responsibly. Therefore, policymakers and financial institutions should promote financial literacy and responsible digital payment practices to ensure sustainable economic benefits for rural consumers.

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