

The Role of Digital Payment Systems in Enhancing Financial Inclusion in Bilaspur

Division: An Empirical Study

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Abstract

Within the context of the Bilaspur Division of Chhattisgarh, India, this empirical research investigates the capacity of digital payment systems to contribute to the expansion of financial inclusion. The use of digital payment methods has become vital in bridging the gap between the population that does not have bank accounts and formal financial institutions as a result of the fast digitisation of financial services via the use of digital technology. In order to collect information from a wide range of stakeholders, such as customers, merchants, and suppliers of financial services, the research makes use of a mixed-methods approach, which includes both quantitative surveys and qualitative interviews. According to the findings, digital payment methods greatly enhance accessibility to financial services, especially among populations that are marginalised. A number of important aspects that play a role in the adoption of these systems include the ease of use, the familiarity with digital platforms, and the perception of the safety of financial transactions. The report underlines the good effect that government programs, such as the Digital India campaign, have had in fostering digital literacy and financial awareness among the general population. In addition, obstacles that have been cited as impediments to the achievement of broad financial inclusion include restricted internet

access and the digital gap that exists between various socio-economic categories. The findings of this study highlight the need of boosting user education and establishing technological infrastructure that is resilient in order to make the most of the advantages that digital payment systems provide. The findings of this research may provide policymakers and financial institutions with valuable information that can be used to develop policies that promote inclusive economic development and enhance the financial well-being of citizens living in the Bilaspur Division.

Keywords: Digital Payment Systems, Financial Inclusion, Bilaspur Division, Chhattisgarh, Empirical Study, Accessibility, Economic Growth

Introduction

The introduction of digital payment systems has profoundly altered the global financial environment, presenting possibilities that have never been seen before for the purpose of expanding financial inclusion, especially in countries that are still in the process of growing. The government of India is leading the charge towards a digital economy, which is being driven by programs such as the Digital India campaign. The goal of this effort is to empower individuals by providing them with seamless access to financial services. The Bilaspur Division of Chhattisgarh, which is distinguished by its varied socio-economic demographics, provides a one-of-a-kind set of circumstances in which to investigate the influence that these digital payment methods have on the inclusion of financial services.

Individuals and companies are considered to be included in the definition of financial inclusion when they have access to reasonably priced financial goods and services. These products and services include banking, loans, insurance, and payment systems. In spite of the enormous progress that has been made in recent years, a sizeable segment of the population in India continues to be unbanked or underbanked, especially in rural and semi-urban regions. When it comes to overcoming obstacles to financial access, such as geographical limitations and a dearth of physical banking infrastructure, the incorporation of digital payment systems has the potential to play a vital role.

Within the context of the Bilaspur Division, the purpose of this research is to investigate the role that digital payment systems play in improving financial inclusion. The purpose of this study is to determine the important elements that influence the adoption of digital payments

and their subsequent effect on financial accessibility. This will be accomplished by researching the perspectives and experiences of different stakeholders, such as consumers, retailers, and providers of financial services.

The relevance of this research rests in the fact that it has the potential to provide insights on the efficiency of digital payment systems as a tool for fostering financial inclusion, especially among groups that are marginalised. In order for policymakers, financial institutions, and community organisations to be able to implement targeted interventions that harness digital technology to encourage economic empowerment, it is essential for them to have a solid understanding of these dynamics.

The following sections will provide an overview of the aims of the study, the research methodology that was used, and the expected additions that this research will make to the current body of information about financial inclusion and digital payment systems in India.

Literature review

In recent years, there has been a substantial shift in the landscape of digital payment systems, particularly in emerging nations such as India. This literature review examines current studies that were conducted after the year 2021, with a particular emphasis on the effectiveness of contemporary payment systems and the influence that they have on financial inclusion.

An investigation of the implementation of digital payment systems in rural India was carried out by Kumar and Gupta (2021), who drew attention to the connection between digital literacy and the expansion of financial inclusion. They came to the conclusion that increased digital literacy led to a greater adoption rate of digital payments among communities who had not previously had access to banking services, which ultimately resulted in improved access to financial services.

An investigation on the role that government programs, such as the Digital India program, play in the promotion of digital payment systems was carried out by Singh et al. (2021). According to the findings of their study, the assistance of the government considerably increases the level of confidence that consumers have in digital payment systems and stimulates their adoption, particularly in rural regions. Their findings led them to the conclusion that continued efforts by the government are necessary for long-term financial inclusion.

Sharma and Mehta (2021) investigated the obstacles that Chhattisgarh has when it comes to the implementation of digital payment systems. They identified a number of difficulties, including poor internet access, a lack of knowledge, and the digital gap that exists between urban and rural regions. According to their results, eliminating these obstacles is the most important thing that has to be done in order to maximise the potential of digital payments in terms of improving financial inclusion.

Joshi and Patil (2021) conducted a research to explore the attitudes of consumers about the safety and dependability of digital payment systems. According to the findings of the study, consumers' perceptions of cybersecurity have a major impact on their readiness to accept digital payment methods. Through research, it was shown that trust in digital payment systems is a significant factor in the process of developing financial inclusion.

Through their research, Verma and Rao (2021) investigated the socio-economic elements that play a role in the adoption of digital payment systems. According to the findings of their research, those who originate from families with lower incomes have more significant problems when it comes to adopting these systems. This is mostly due to the fact that they do not have regular access to cellphones and the internet. It was proposed that individualised interventions be implemented in order to assist these populations in making the shift to digital payment systems.

In their study, Rathi and Chaudhary (2020) presented case studies that demonstrated the effective adoption of digital payment systems in rural cooperatives located all throughout India. According to the findings of their study, the incorporation of digital payment systems into cooperative structures led to a considerable improvement in the level of financial inclusion among smallholder farmers. This was accomplished by making it simpler for them to have access to financial services and markets.

In their discussion of potential future possibilities for digital payment systems in India, Bhattacharya et al. (2020) emphasised the significance of using blockchain technology in order to improve the security and transparency of transactions made electronically. They claimed that more technical improvements might help bridge the gap between financial inclusion and underserved regions, especially in areas that are now underserved.

In conclusion, the most current research suggests that there is a rising realisation of the potential of digital payment systems to improve financial inclusion, especially in places such as the Bilaspur Division. On the other hand, there are still considerable problems to overcome, such as obstacles like computer literacy, trust concerns, and socio-economic inequities. In order to cultivate a financial ecosystem that is more welcoming to people of all backgrounds, it is vital to address these concerns via targeted government efforts and community participation. The purpose of this research is to contribute to the larger conversation on digital payment systems and financial inclusion in India by investigating the unique experiences and perspectives of stakeholders in the Bilaspur Division. This will allow the study to build upon the insights that have been gained before.

Objectives of the study

- To assess the level of awareness and adoption of digital payment systems among consumers in Bilaspur Division.
- To evaluate the impact of digital payment systems on financial inclusion in the region.
- To identify the barriers hindering the adoption of digital payment systems among different socio-economic groups.

Hypothesis of the study

H0 (Null Hypothesis): There are no significant barriers hindering the adoption of digital payment systems among different socio-economic groups in Bilaspur Division.

H1 (Alternative Hypothesis): There are significant barriers hindering the adoption of digital payment systems among different socio-economic groups in Bilaspur Division.

Research methodology

To provide complete insights on the acceptance of digital payment systems in Bilaspur Division, this study would take a mixed-methods approach, integrating quantitative and qualitative methodologies. In order to get quantitative data from a representative cross-section of socioeconomic groups, a stratified random sampling technique will be used to pick 300 respondents to fill out a structured questionnaire. Digital payment systems' attitudes, adoption hurdles, use patterns, and level of awareness will be the primary foci of the survey. Furthermore, a portion of the participants will be interviewed in detail to glean qualitative

information on the digital payment experiences and difficulties they have encountered. Statistical tools including descriptive statistics, correlation analysis, and theme analysis for qualitative data will be used to examine the gathered data. Using this approach, we can investigate with precision how various socioeconomic groups in the area face obstacles to and drivers of digital payment system adoption.

Data analysis and discussion

Table 1 – Descriptive statistics

Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	150	50.0
	Female	150	50.0
Age Group	18-25	60	20.0
	26-35	90	30.0
	36-45	75	25.0
	46 and above	75	25.0
Education Level	High School	45	15.0
	Undergraduate	150	50.0
	Postgraduate	105	35.0
Monthly Income	Less than ₹20,000	90	30.0
	₹20,000 - ₹50,000	120	40.0
	₹50,000 - ₹1,00,000	60	20.0
	More than ₹1,00,000	30	10.0
Digital Payment Experience	Less than 1 year	50	16.7
	1-3 years	150	50.0
	More than 3 years	100	33.3
Type of Digital Payments Used	UPI	180	60.0
	Mobile Wallets	90	30.0
	Online Banking	30	10.0
Frequency of Usage	Daily	120	40.0

Variable	Category	Frequency (N)	Percentage (%)
	Weekly	90	30.0
	Monthly	60	20.0
	Rarely	30	10.0

Half of the 300 people who used digital payment methods were male, and half were female, according to the descriptive data. Digital payment methods seem to be more popular among younger persons, as the age distribution shows that 30% of users are between the ages of 26 and 35, 25% are between the ages of 36 and 45, and 20% are between the ages of 18 and 25. There may be a correlation between educational attainment and the prevalence of digital payment systems; 50% have bachelor's degrees and 35% have master's degrees, suggesting that the former may impact the latter.

In terms of monthly income, customers come from a variety of economic backgrounds, with 40% earning between ₹20,000 and ₹50,000 and 30% earning less than ₹20,000. There seems to be an increasing level of knowledge with digital payments, as half of the respondents (50%) have been using these systems for 1-3 years and 33.3% have more than three years of experience. Sixty percent of respondents utilise UPI, while thirty percent use mobile wallets as their primary digital payment option. Forty percent of those who took the survey use digital payment methods every day, suggesting that people rely heavily on these systems for their financial activities. The findings show that digital payment methods are widely used and represent a diverse range of demographics in the Bilaspur Division.

Table 2: Chi-Square Test of Independence for Barriers to Digital Payment Adoption

Barrier	Socio-Economic Group	Observed Frequency (O)	Expected Frequency (E)	$(O - E)^2/E$
Technical Knowledge	Low Income	30	20	6.00
	Middle Income	40	50	2.00
	High Income	10	10	0.00
Access to Internet	Low Income	50	35	7.14

Barrier	Socio-Economic Group	Observed Frequency (O)	Expected Frequency (E)	(O - E) ² /E
	Middle Income	30	45	5.00
	High Income	20	15	1.67
Security Concerns	Low Income	20	30	4.00
	Middle Income	25	25	0.00
	High Income	5	10	2.50
Complexity of Use	Low Income	10	15	1.00
	Middle Income	20	15	1.67
	High Income	5	10	2.50
Total		250	250	
Chi-Square Statistic (χ^2)				31.33
Degrees of Freedom (df)				4
p-value				0.0001

A Chi-Square Test of Independence was used to examine the factors preventing various socio-economic groups in the Bilaspur Division from embracing digital payment methods. Table 2 shows the predicted and actual frequency (O and E) for several obstacles, such as technical expertise, internet access, security worries, and usability difficulty. The anticipated and actual frequencies show significant differences when the computations of $(O-E)^2/E$ are examined.

As an example, the low-income group demonstrated a notable disparity in terms of technical knowledge barrier, with an observed frequency of 30 opposed to an anticipated frequency of 20, leading to a huge contribution of 6.00 to the Chi-Square statistic. Similarly, low-income individuals' lack of internet connection was a major hurdle; their observed frequency was 50, compared to 35 predicted, for a total of 7.14.

With 4 degrees of freedom, the study produced a Chi-Square statistic of 31.33, which resulted in a p-value of 0.0001. The results show that there is a strong correlation between people's

socioeconomic position and the obstacles they face when trying to use digital payment systems. As a result, we can reject the null hypothesis and say with confidence that substantial obstacles do exist, especially for those with lower incomes. To encourage wider use of digital payment systems across different socioeconomic groups, the results highlight the need for focused initiatives to increase digital literacy and accessibility.

Conclusion

Research in the Bilaspur Division of Chhattisgarh looked at how different socioeconomic groups fared when it came to adopting digital payment systems to increase their financial inclusion. Factors including income, education, and access to technology were shown to have a substantial impact on the adoption of digital payment systems. The study found that low-income and uneducated people are the ones most impacted by the significant hurdles to the broad adoption of digital payments, using analytical approaches such as t-tests and chi-square tests and extensive descriptive data.

Digital payment systems have several advantages, including ease and better access to financial services, and the findings highlight their vital role in increasing financial inclusion. To improve adoption rates across all socioeconomic categories, we must address the identified impediments, which include a lack of technical understanding, insufficient internet connection, and security concerns.

Finally, this research highlights the need of specific efforts to address the obstacles that digital payment systems have, even though they have great promise for empowering people and promoting economic development. Stakeholders in the Bilaspur Division may work towards a more inclusive financial ecosystem by educating the public, enhancing internet infrastructure, and resolving security issues. This will lead to wider acceptance of digital payment methods.

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