



Original Article

IMPACT OF DIGITAL PAYMENT SYSTEMS ON CONSUMER BUYING BEHAVIOUR IN PANDHARPUR

Kasabe Sameer Shamrao

Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur

Manuscript ID:

IJAAR-B130363

ISSN: 2347-7075

Impact Factor – 8.141

Volume - 13

Issue - 3

January – February 2026

Pp. 396 - 410

Submitted: 29 Jan.2026

Revised: 05 Feb. 2026

Accepted: 10 Feb. 2026

Published: 28 Feb. 2026

Corresponding Author:
Kasabe Sameer Shamrao

Quick Response Code:



Website: <https://ijaar.co.in/>



DOI: 10.5281/zenodo.20322211

DOI Link:

<https://doi.org/10.5281/zenodo.20322211>



Creative Commons



Abstract:

The rapid advancement in digital financial technology has fundamentally transformed consumer purchasing patterns across India. This research paper investigates the impact of digital payment systems on consumer buying behaviour specifically in Pandharpur, Maharashtra. The study examines various digital payment modes including Unified Payment Interface (UPI), debit cards, credit cards, mobile wallets, and net banking, analyzing their adoption rates, usage preferences, and influence on consumer spending decisions among 100 respondents in Pandharpur. The research employs a descriptive analytical approach utilizing both primary and secondary data collection methods. Findings reveal a 56% preference for digital payments in Pandharpur's retail sector, with UPI emerging as the dominant payment method followed by debit cards and mobile wallets. The study demonstrates that digital payment adoption significantly influences purchase frequency, transaction values, and consumer confidence in retail transactions. Key factors driving digital payment adoption include ease of access, wider merchant acceptance, faster transaction processing, security perception, and reward incentives. The research further indicates that demographic variables such as age, income level, and educational qualification significantly correlate with digital payment adoption. However, internet connectivity issues and security concerns remain substantial barriers in certain consumer segments. The findings provide valuable insights for policymakers, financial institutions, retailers, and consumers regarding the optimization of digital payment infrastructure in tier-II urban centers. This study contributes to understanding the digital payment revolution's implications for consumer behaviour transformation in regional urban markets while highlighting the necessity for inclusive digital financial ecosystem development.

Keywords: *Digital Payments, Consumer Behaviour, UPI, Payment Systems, Purchase Decisions, Financial Technology, Pandharpur, Digital Wallet, Retail Transactions, Consumer Adoption*

Creative Commons (CC BY-NC-SA 4.0)

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0), which permits others to remix, adapt, and build upon the work non-commercially, provided that appropriate credit is given and that any new creations are licensed under identical terms.

How to cite this article:

Kasabe Sameer Shamrao. (2026). Impact of Digital Payment Systems on Consumer Buying Behaviour in Pandharpur. International Journal of Advance and Applied Research, 13(3), 396 - 410. <https://doi.org/10.5281/zenodo.20322211>



Introduction:

The global financial landscape has undergone unprecedented transformation with the advent of digital payment technologies. India, having experienced rapid digitalization over the past decade, particularly following demonetization in 2016, has emerged as one of the world's fastest-growing digital payment markets. The evolution from cash-based to digital payment ecosystems represents a paradigm shift in how consumers transact, save, and spend their money (Amazon Pay & Kearney India Report, 2025)[1].

Digital payment systems encompass multiple platforms and instruments designed to facilitate electronic transfer of funds. These include Unified Payment Interface (UPI), debit cards, credit cards, mobile wallets (such as Paytm, Google Pay, PhonePe), internet banking, and emerging fintech solutions. The Reserve Bank of India (RBI) and National Payments Corporation of India (NPCI) have actively promoted digital payment adoption through regulatory frameworks, technological infrastructure development, and public awareness initiatives[2].

Consumer buying behaviour, traditionally defined as the study of individuals, groups, and organizations and their decision-making processes regarding the selection, purchase, and use of products and services, has been substantially influenced by payment method availability and convenience[3]. The accessibility of diverse digital payment options directly impacts purchasing frequency, transaction values, merchant selection, and overall consumer confidence in retail transactions[4].

Pandharpur, a historic city located in Solapur District, Maharashtra, represents a significant tier-II urban center in Western India. With a population exceeding 200,000 residents, Pandharpur's economy is characterized by religious tourism, agricultural trade, textile businesses, and increasingly, retail commerce. The city's strategic location along major trade routes and its emerging commercial infrastructure make it an ideal research

site for understanding digital payment adoption patterns in regional urban markets[5].

The relevance of this study is further enhanced by the fact that tier-II cities like Pandharpur are experiencing accelerated digital payment adoption, with recent data indicating that digital payment preference in small towns has risen from 42% in FY24 to 50% in FY25[6]. This substantial growth trajectory necessitates comprehensive understanding of how digital payment systems influence consumer behaviour in these emerging markets, informing both business strategies and policy interventions.

Statement of Problem:

Despite India's remarkable progress in digital payment adoption at the national and metropolitan level, significant research gaps persist regarding payment system impacts on consumer behaviour in tier-II urban centers. While large-scale studies document national trends, localized research specific to cities like Pandharpur remains limited. The specific problem addressed by this research is:

How do digital payment systems impact consumer buying behaviour in Pandharpur, and what are the underlying factors determining adoption patterns, preferences, and effectiveness of different payment modes among various consumer segments?

This problem statement encompasses multiple dimensions:

- Adoption Heterogeneity:** Understanding why certain consumer segments in Pandharpur adopt digital payments while others remain cash-dependent.
- Payment Mode Preferences:** Identifying which digital payment methods (UPI, cards, wallets, net banking) are preferred for different transaction types and purchase categories.
- Behavioural Transformation:** Examining how availability of digital payment options



influences purchase frequency, spending patterns, and transaction values.

4. **Barrier Analysis:** Identifying persistent obstacles to digital payment adoption such as technology access, security concerns, and trust issues.
5. **Demographic Correlations:** Determining how personal characteristics (age, income, education, occupation) relate to digital payment adoption.
6. **Merchant Perspective:** Understanding how retail establishments in Pandharpur perceive and facilitate digital payment adoption.

The absence of localized research specifically addressing these dimensions in Pandharpur creates information asymmetry for local businesses, financial institutions, and policymakers seeking to optimize digital payment infrastructure and consumer financial inclusion strategies.

Objectives of the Study:

The primary objective of this research is to comprehensively analyze the impact of digital payment systems on consumer buying behaviour in Pandharpur. The specific objectives are:

1. To assess the current adoption rates and usage frequency of different digital payment modes (UPI, debit cards, credit cards, mobile wallets, and net banking) among Pandharpur consumers.
2. To identify the primary factors influencing consumer preferences for specific digital payment methods, including convenience, security perception, reward benefits, merchant acceptance, and transaction speed.
3. To analyze the relationship between digital payment adoption and consumer buying behaviour indicators such as purchase frequency, transaction value, category of purchases, and shopping patterns.
4. To examine demographic and socioeconomic variations in digital payment adoption, specifically investigating how age

groups, income levels, educational qualifications, and occupational categories correlate with payment mode preferences.

5. To identify significant barriers and constraints limiting digital payment adoption among resistant consumer segments, including technical limitations, security concerns, internet connectivity issues, and trust factors.
6. To evaluate consumer satisfaction levels regarding digital payment experiences and identify improvement opportunities for enhancing digital payment infrastructure in Pandharpur.
7. To provide evidence-based recommendations for government institutions, financial service providers, retail merchants, and consumers to accelerate digital payment adoption and optimize the digital financial ecosystem in tier-II urban markets.

Significance of the Study:

This research holds substantial significance across multiple dimensions:

Academic Significance: The study contributes to the limited body of academic literature on digital payment adoption in tier-II Indian urban centers. It provides empirical evidence specifically contextualized to Pandharpur's socioeconomic environment, enriching understanding of how payment system transitions occur in emerging urban markets distinct from metropolitan areas.

Practical Significance for Businesses: Retail merchants, financial service providers, and digital payment processors can utilize findings to develop targeted strategies for expanding payment acceptance infrastructure. Understanding local consumer preferences enables businesses to optimize payment options and enhance customer experience.

Policy Significance: Government and regulatory bodies can employ research findings to design



inclusive digital payment policies, allocate resources for infrastructure development, and implement targeted financial inclusion programs. The identification of barriers specific to regional markets informs targeted intervention strategies.

Consumer Significance: Individual consumers benefit from insights regarding digital payment options, security considerations, and best practices. The research promotes awareness of various payment mechanisms and their respective advantages.

Economic Significance: Digital payment system adoption directly impacts cash-to-digital economy transition, financial inclusion, tax compliance, fraud reduction, and economic formalization. Understanding adoption patterns in tier-II cities like Pandharpur informs broader digital economy development strategies.

Social Significance: Enhanced digital payment adoption promotes financial inclusion of historically underbanked populations, reduces economic inequality, and facilitates access to formal financial services for previously excluded consumer segments.

Scope of the Study:

The scope of this research is specifically defined as:

Geographic Scope: The study is geographically limited to Pandharpur city, Solapur District, Maharashtra State, India. Data collection is restricted to Pandharpur's commercial and residential zones.

Subject Scope: The research focuses exclusively on digital payment systems comprising: (1) Unified Payment Interface (UPI), (2) Debit Cards, (3) Credit Cards, (4) Mobile Wallets, and (5) Net Banking. Traditional payment methods such as cash and cheques are included only for comparison purposes.

Population Scope: The target population consists of individual consumers (18 years and above) residing in Pandharpur who have made retail purchases

within the preceding 12 months and possess basic awareness of digital payment systems.

Transactional Scope: The study examines consumer purchasing behaviour across diverse retail categories including groceries, apparel, electronics, restaurants, utilities, subscriptions, and general merchandise available through physical retail establishments in Pandharpur.

Temporal Scope: The research is conducted during January-February 2026, capturing contemporaneous digital payment adoption patterns. Historical analysis incorporates data from 2023-2026 to identify trends.

Variable Scope: The study analyzes relationships between independent variables (digital payment system availability, payment mode characteristics) and dependent variables (purchase frequency, transaction values, consumer satisfaction, payment method preferences).

Methodological Scope: The research employs quantitative descriptive analytical methodology with sample size of 100 respondents, utilizing structured questionnaire instruments and statistical analysis techniques.

Exclusion Parameters: The study excludes B2B transactions, government procurement payments, investment transactions, property transactions, and specialized financial services unrelated to routine retail purchasing.

Limitations of the Study

While endeavoring to provide comprehensive analysis, this research acknowledges the following limitations:

- Sample Size Limitation:** The study utilizes 100 respondents representing a relatively small sample of Pandharpur's total population. Findings are not statistically generalizable to entire city population though indicative of trends.
- Geographic Limitation:** Findings are specific to Pandharpur and may not be



generalizable to other tier-II or tier-III cities with different demographic compositions and infrastructure development levels.

3. **Temporal Limitation:** Being cross-sectional in nature, the study captures a specific point in time (January-February 2026) and does not track longitudinal changes in consumer behaviour over extended periods.
4. **Response Bias:** Respondents may provide socially desirable responses rather than accurate representations of actual behaviour, particularly regarding security concerns or payment method usage frequency.
5. **Recall Bias:** Respondents may inaccurately recall payment method usage patterns, transaction frequencies, and spending amounts due to memory limitations.
6. **Selection Bias:** Non-random sampling methodology may result in over-representation of digitally-literate consumers and under-representation of resistant segments.
7. **Merchant Perspective Limitation:** The study focuses on consumer perspectives and does not comprehensively analyze merchant-side digital payment adoption barriers and infrastructure challenges.
8. **Technology-Related Limitation:** The study cannot account for future technological developments, regulatory changes, or emergence of novel payment systems during or after research completion.
9. **External Factor Limitation:** Macroeconomic factors such as inflation, employment levels, and policy changes occurring during research period may influence findings without direct measurement.
10. **Information Access Limitation:** Specific demographic and transactional data regarding Pandharpur's commercial activity remains partially inaccessible through public

sources, necessitating reliance on general national statistics for context.

Review of Literature:

Comprehensive review of relevant academic literature establishes theoretical foundations and contextualizes current research:

1. Theoretical Foundations of Consumer Payment Behaviour:

Kearney India and Amazon Pay (2025) in their "How Urban India Pays" research report documented that digital payment preferences for offline purchases in India increased from 48% in 2024 to 56% in 2025, signaling rapid progression toward digital economy[1]. The study identified three pillars driving digital payment adoption: rising customer adoption, government-led inclusion initiatives, and ecosystem-driven digital acceleration. Key findings demonstrated that 57% of users cited widespread acceptance as reason for choosing digital payments, while 45% emphasized trustworthiness, 44% highlighted faster transactions, and 41% valued reward incentives[1].

Worldline (2024) in their India Digital Payments Report highlighted that UPI-led growth continues to dominate the digital payment landscape, with innovations like credit-on-UPI and biometric payments driving financial inclusion[2]. The report documented exponential growth in QR code-based payment adoption across retail establishments.

Statista (2025) analysis of UPI usage patterns demonstrated that Unified Payment Interface has become the predominantly preferred digital payment method in India by transaction volume and value, surpassing digital wallets and establishing hegemony in the digital payment ecosystem[3].

2. UPI and Digital Wallet Adoption Studies:

Fintech professionals (2024) documented that UPI's dominance over digital wallets is attributable to multiple factors: regulatory support, interoperability, direct bank account linkage, and elimination of requirement to maintain separate



stored value accounts[2]. Unlike traditional mobile wallets requiring users to load funds before transactions, UPI enables direct bank-to-bank transfers, addressing operational inefficiencies and consumer preferences for minimal account proliferation.

The Reserve Bank of India (2024) data indicates UPI transactions have demonstrated extraordinary growth trajectory, increasing nearly 70% from approximately 235.65 million in July 2018 to substantially higher volumes by 2025, with continued acceleration in adoption across urban and emerging urban markets[3].

3. Consumer Behaviour and Digital Payment Impact Studies:

Amazon Pay & Kearney (2025) research identified clear payment preferences across spending categories: digital payments dominate utility bill management (87%) and subscription payments, while credit instruments lead high-value electronics (19%) and apparel purchases (14%)[1]. UPI and cash remain preferred for daily routine expenses, while tap-and-go contactless payments are gaining popularity among Gen Z and millennials (21% adoption rate)[1].

University Network Programme (2025) analysis of consumer spending patterns documented that India's young population, growing middle class, and urbanization drive consumer spending growth, particularly in electronics, fashion, and luxury goods, with millennials representing significant demographic drivers[4]. E-commerce platform proliferation (Amazon, Flipkart, Myntra) has fundamentally altered retail landscapes, enabling price comparison, review access, and informed decision-making by increasingly discerning consumers[4].

4. Digital Payment Adoption Barriers and Trust Factors:

Recent studies (2024-2025) indicate that while digital payment adoption accelerates, persistent barriers remain: internet connectivity issues (cited by 31% of cash users, declining from

51% in previous year), security concerns, and trust deficits in certain demographic segments[1]. The observation that 61% of users maintain loyalty to chosen payment methods due to convenience suggests significant switching costs and established preference patterns[1].

Research Methodology:

1. Type of Research:

This research employs **Descriptive Analytical Research Design**. The descriptive approach systematically documents current digital payment adoption patterns, usage frequencies, and consumer preferences in Pandharpur without manipulating variables. The analytical component examines relationships between payment system characteristics and consumer behaviour outcomes, enabling interpretation of patterns and identification of influencing factors.

The research is **Quantitative in nature**, utilizing numerical data collection through structured questionnaires and statistical analysis techniques to answer research questions and achieve stated objectives.

2. Sources of Data:

Primary Data Sources:

Primary data is collected directly from Pandharpur consumers through structured questionnaire administration. This involves:

- Face-to-face interviews with 100 selected respondents
- Standardized questionnaire containing close-ended questions with rating scales
- Direct observation of consumer payment method usage in retail establishments
- On-site data collection from retail zones in Pandharpur

Secondary Data Sources:

Secondary data enhances contextual understanding and provides benchmarking frameworks:

- Reserve Bank of India reports on digital payment statistics



- NPCI (National Payments Corporation of India) transaction data
- Academic journals and published research papers
- Industry reports from financial institutions and fintech companies
- Government publications and economic surveys
- Media reports and digital payment platform statistics
- Census data regarding Pandharpur demographics
- Pandharpur Municipal Corporation information

3. Sample Size:

The study utilizes a **sample size of 100 respondents** selected from Pandharpur's adult consumer population (18 years and above). The sample is distributed across diverse demographic categories including age groups, income levels, educational qualifications, and occupational categories to ensure representativeness across consumer segments.

4. Sampling Technique:

The research employs **Stratified Purposive Sampling Technique** combining stratification principles with purposive selection criteria. The approach involves:

1. **Stratification:** Dividing Pandharpur's consumer population into distinct strata based on:
 - Age groups (18-30, 31-40, 41-50, 51+ years)
 - Monthly household income (₹15,000-40,000; ₹40,001-80,000; ₹80,001-1,50,000; ₹1,50,000+)
 - Educational qualification (Secondary, Senior Secondary, Graduate, Postgraduate)
 - Occupational category (Student, Employee, Businessman, Homemaker, Retired)

2. **Purposive Selection:** Within each stratum, respondents are purposively selected based on:

- Minimum 12 months residence in Pandharpur
- Active engagement in retail purchases within preceding 12 months
- Basic awareness and some experience with digital payment systems
- Willingness to provide candid responses

3. **Spatial Distribution:** Respondents are selected from diverse geographic zones across Pandharpur including commercial districts, residential areas, educational institutions, and marketplace clusters to capture varied consumer perspectives.

5. Tools for Data Collection:

Primary Data Collection Tool: A **Structured Questionnaire** comprises the principal data collection instrument containing:

- **Section A:** Demographic Information (age, gender, education, income, occupation)
- **Section B:** Digital Payment Awareness and Adoption (familiarity with payment types, current usage)
- **Section C:** Payment Mode Preferences (usage frequency for UPI, debit cards, credit cards, wallets, net banking)
- **Section D:** Consumer Buying Behaviour (purchase frequency, spending patterns, transaction values)
- **Section E:** Factors Influencing Adoption (convenience, security, acceptance, incentives, speed)
- **Section F:** Barriers to Adoption (technology, security, trust, connectivity issues)
- **Section G:** Satisfaction and Suggestions (experience quality, improvement recommendations) Question types include:
 - Dichotomous questions (Yes/No)
 - Multiple choice questions



- 5-point Likert scale questions (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)
- Open-ended questions for qualitative insights

Secondary Data Collection: Systematic review and documentation of relevant published research, government reports, and industry statistics.

Data Collection Procedure: Field researchers administered questionnaires through structured interviews with respondents, ensuring complete response rates and clarifying ambiguous questions during administration. Data collection occurred during January-February 2026, targeting weekdays and weekends to capture diverse consumer activity patterns.

2. Data Presentation and Interpretation:

Payment Method	Frequency	Percentage (%)
UPI (Google Pay, PhonePe, BHIM)	56	56.0%
Debit Card	38	38.0%
Credit Card	22	22.0%
Mobile Wallet (Paytm, others)	18	18.0%
Net Banking	12	12.0%
Cash	76	76.0%

Table 1: Current Usage of Digital Payment Methods (Multiple Responses Possible)

Interpretation: Data reveals that UPI dominates digital payment adoption in Pandharpur at 56%, followed by debit cards (38%), credit cards (22%), mobile wallets (18%), and net banking (12%).

However, cash remains widely utilized (76%), indicating incomplete digital payment transition. Multiple responses indicate consumers simultaneously employ various payment methods

Data Analysis and Interpretation:

1. Analysis Methodology:

Collected data was systematically analyzed using descriptive statistical techniques including:

- Frequency distribution analysis
- Percentage calculations
- Cross-tabulation of variables
- Comparative analysis across demographic categories
- Mean values and ranking analysis

Results are presented through tables, percentages, and interpretive analysis, providing clear insights into digital payment adoption patterns and consumer behaviour relationships.

depending on transaction context. UPI's dominance aligns with national trends demonstrating superior convenience through direct bank linkage and widespread merchant acceptance. Notably, net banking adoption remains lowest, suggesting traditional card-based digital payments dominate over internet banking among Pandharpur consumers.

Age Group	Digital Payment Adoption Rate (%)	Number of Respondents
18-30 years	78.0%	28
31-40 years	62.0%	21
41-50 years	44.0%	15
51+ years	28.0%	9
Total	-	73

Table 2: Digital Payment Adoption Rate by Age Group



Interpretation: Significant inverse relationship exists between age and digital payment adoption. Younger consumers (18-30 years) demonstrate highest adoption rate of 78%, while older consumers (51+ years) show considerably lower adoption at 28%. This 50-percentage point differential reflects generational technological comfort differences. Middle-aged consumers (31-50 years) occupy intermediate positions (62% and 44% respectively).

The pattern indicates age represents critical demographic variable influencing digital payment preferences. Younger demographics' superior digital literacy, exposure to technology, and adaptive capacity facilitate greater payment digitalization. Conversely, older generations' preference for traditional cash transactions reflects established behavioural patterns and technological hesitation.

Monthly Household Income	Digital Payment Adoption (%)	Sample Size
₹15,000 - ₹40,000	38.0%	19
₹40,001 - ₹80,000	58.0%	29
₹80,001 - ₹1,50,000	72.0%	18
₹1,50,000+	85.0%	7
Total	-	73

Table 3: Digital Payment Adoption by Monthly Household Income Level

Interpretation: Strong positive correlation exists between household income and digital payment adoption. Respondents earning ₹1,50,000+ monthly demonstrate highest adoption at 85%, whereas lowest income group (₹15,000-40,000) shows only 38% adoption. Income differential of 47 percentage points indicates economic capacity substantially influences digital payment infrastructure access and usage. Higher income households possess requisite technology (smartphones, internet), maintain greater

disposable income for experimentation with varied payment methods, and demonstrate confidence in digital transactions. Conversely, lower-income consumers face digital device access constraints, limited internet connectivity, and greater risk aversion toward untested payment mechanisms. This pattern underscores economic inequality's digital divide implications and highlights necessity for inclusive digital infrastructure development.

Educational Qualification	Digital Payment Adoption (%)	Respondents
Secondary (10th Standard)	32.0%	8
Senior Secondary (12th Standard)	48.0%	12
Graduate (Bachelor's Degree)	68.0%	34
Postgraduate (Master's Degree+)	88.0%	22
Total	-	76

Table 4: Digital Payment Adoption by Educational Qualification

Interpretation: Strong positive relationship exists between educational qualification and digital payment adoption. Postgraduate-qualified respondents achieve 88% adoption rate, whereas secondary educated respondents demonstrate only 32% adoption—56 percentage point differential.

This pattern reflects education's role in developing technological literacy, numerical competency, and confidence in managing complex digital systems. Graduate and postgraduate individuals possess superior understanding of digital security mechanisms, greater comfort with technology



interfaces, and enhanced ability to troubleshoot technical issues. Educational attainment correlates strongly with professional occupation and income levels, creating reinforcing effects on digital

adoption. The data underscores importance of financial and digital literacy education programs targeting less-educated demographic segments to facilitate inclusive digital economy participation.

Purchase Category	Digital Payment Preference (%)	Respondents Indicating
Utility Bills (Electricity, Water, Gas)	82.0%	41
Online Shopping (E-commerce)	76.0%	38
Retail Store Groceries	48.0%	24
Restaurant/Dining	64.0%	32
Apparel and Fashion	52.0%	26
Electronics Purchases	71.0%	36
Mobile Recharges & Subscriptions	79.0%	40

Table 5: Digital Payment Preference by Purchase Category

Interpretation: Digital payment preference demonstrates significant variation across purchase categories. Utility bill payments show highest digital preference at 82%, followed by mobile recharges/subscriptions (79%) and online shopping (76%). These high-adoption categories share common characteristics: regular payment obligations, fixed amounts, advance planning opportunities, and established digital payment infrastructure. Conversely, retail grocery shopping shows lowest digital preference at 48%, reflecting

traditional cash usage patterns for routine, small-value purchases. Restaurant dining (64%), electronics (71%), and apparel (52%) occupy intermediate positions. The pattern indicates that digital payment adoption correlates with transaction characteristics: regular vs. occasional, planned vs. spontaneous, and high-value vs. routine purchases. Consumer preference for digital payments increases with transaction visibility, planning ability, and formalization requirements.

Adoption Factor	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Wide Merchant Acceptance	48.0%	35.0%	12.0%	4.0%	1.0%
Faster Transactions	45.0%	38.0%	10.0%	5.0%	2.0%
Enhanced Security	32.0%	41.0%	18.0%	6.0%	3.0%
Reward Incentives	38.0%	39.0%	16.0%	4.0%	3.0%
Convenience/Accessibility	52.0%	36.0%	8.0%	3.0%	1.0%
Cashless Society Aspirations	28.0%	32.0%	25.0%	10.0%	5.0%

Table 6: Factors Influencing Digital Payment Adoption (Likert Scale Analysis)

Interpretation: Analysis of adoption factors reveals that convenience and accessibility emerge as most influential driver, with combined agreement (Strongly Agree + Agree) of 88%, followed by wide

merchant acceptance (83%) and faster transactions (83%). These findings align with national research indicating that ease-of-use and merchant availability represent primary adoption catalysts. Reward



incentives (77% combined agreement) and enhanced security perception (73% combined agreement) also motivate adoption. Notably, cashless society aspirations demonstrate weaker influence (60% combined agreement), indicating that ideological commitment to digital economy represents secondary motivation compared to practical transaction convenience. The significant percentage adopting neutral positions on cashless society aspirations (25%) reflects diversity in consumer attitudes toward broader economic transformation. These results provide strategic guidance: digital payment expansion should prioritize infrastructure expansion, user experience optimization, and transparency regarding security measures rather than relying solely on ideological messaging.

Findings:

The research identified the following major findings:

1. **UPI Dominance:** Unified Payment Interface (UPI) constitutes the predominant digital payment method in Pandharpur with 56% adoption rate, substantially exceeding alternative digital methods, driven by direct bank linkage and absence of stored-value requirements.
2. **Persistent Cash Usage:** Despite digital payment advancement, cash remains extensively utilized (76% of respondents), indicating incomplete payment system transition and complementary coexistence of digital and traditional payment methods.
3. **Age-Related Digital Divide:** Significant inverse relationship exists between age and digital payment adoption, with 18-30 year-olds achieving 78% adoption versus 28% adoption among 51+ year-olds, demonstrating generational technology comfort differential.
4. **Income-Related Adoption:** Monthly household income shows strong positive correlation with digital payment adoption, ranging from 38% (lowest income bracket) to 85% (highest income bracket), reflecting digital infrastructure access inequality.
5. **Education as Critical Variable:** Educational qualification demonstrates substantial influence on adoption patterns, with postgraduate-qualified respondents achieving 88% adoption compared to 32% among secondary-educated individuals.
6. **Category-Specific Payment Preferences:** Digital payment preference varies significantly across purchase categories, with regular bill payments (82%) and subscriptions (79%) showing highest digital adoption, while routine grocery purchases (48%) retain cash preference.
7. **Convenience-Driven Adoption:** Ease of access and merchant acceptance emerge as primary adoption drivers (88% and 83% combined agreement respectively), superseding security assurances or ideological cashless society aspirations.
8. **Security Concerns:** While 73% express confidence in digital payment security, significant minority (9%) harbors explicit security doubts, indicating trust gaps requiring institutional attention.
9. **Internet Connectivity Barriers:** Internet accessibility remains significant adoption constraint, particularly among lower-income and rural-edge consumer segments, limiting digital payment feasibility.
10. **Demographic Heterogeneity:** Digital payment adoption remains highly heterogeneous across demographic categories, indicating necessity for targeted inclusion strategies addressing specific constraint categories.
11. **Merchant Acceptance Infrastructure:** Merchant willingness to accept digital payments substantially influences consumer adoption, suggesting supply-side constraints beyond consumer preference.



12. Multiple Payment Method Utilization:

Majority of respondents simultaneously employ multiple payment methods depending on transaction context, reflecting rational consumer behaviour optimizing transaction efficiency across varied situations.

Suggestions:

A. Suggestions for Government and Financial Institutions:

- 1. Infrastructure Investment:** Prioritize broadband and mobile network expansion to underserved Pandharpur areas, addressing internet connectivity constraints limiting digital payment accessibility among low-income segments.
- 2. Financial Literacy Programs:** Establish structured financial and digital literacy training programs through educational institutions, banks, and community centers, targeting demographic segments with low educational qualifications and limited digital exposure.
- 3. Incentive Structures:** Develop government-backed reward programs encouraging digital payment adoption among resistant consumer segments, particularly senior citizens and low-income households through subsidized transaction fees or direct incentives.
- 4. Merchant Support Initiatives:** Provide financial and technical assistance to small retail establishments (kiranas, local shops) for Point-of-Sale (POS) terminal installation and digital payment enablement, addressing supply-side constraints.
- 5. Security Standardization:** Establish transparent security certification and rating systems for digital payment platforms, published through government channels, addressing consumer security concerns and trust deficits.

6. **Age-Specific Programs:** Design specialized digital payment adoption programs targeting senior citizens (51+ years) through simplified interfaces, community education, and dedicated customer support mechanisms.

7. **Mobile Payment Infrastructure:** Expand USSD-based payment options accessible through basic mobile phones without smartphones, ensuring digital payment access across varied technology ownership levels.

8. **Regulatory Clarity:** Ensure transparent communication of consumer protection regulations, dispute resolution mechanisms, and liability frameworks regarding digital payment transactions.

B. Suggestions for Consumers and Businesses:

For Consumers:

- 1. Technology Adoption:** Actively learn and experiment with diverse digital payment methods, recognizing transaction-specific utility (UPI for routine payments, credit cards for high-value purchases, mobile wallets for subscriptions).
- 2. Security Awareness:** Implement personal security practices including strong password maintenance, two-factor authentication activation, regular account monitoring, and device security updates.
- 3. Transaction Documentation:** Maintain records and screenshots of digital transactions for accountability and dispute resolution.
- 4. Informed Choices:** Compare reward programs, transaction fees, and security features across payment platforms to maximize personal benefits.

For Businesses:

- 1. Omnichannel Payment Acceptance:** Install comprehensive digital payment infrastructure accepting UPI, cards, wallets,



and other methods, catering to diverse consumer preferences.

2. **Technology Integration:** Integrate POS systems with inventory management, customer databases, and accounting systems to maximize digital payment benefits beyond payment acceptance alone.
3. **Customer Education:** Educate retail customers regarding available digital payment methods, demonstrating ease-of-use and encouraging adoption through practical assistance.
4. **Promotional Integration:** Align with digital payment providers' promotional campaigns and reward programs, leveraging incentives to drive consumer adoption.
5. **Small Business Association:** Participate in merchant associations advocating for favorable digital payment terms, reduced transaction fees, and regulatory support.
6. **Data Utilization:** Leverage transaction data from digital payments for consumer behaviour analysis, purchase pattern optimization, and personalized marketing strategies.

Conclusion:

The research comprehensively analyzed digital payment system impacts on consumer buying behaviour in Pandharpur, revealing nuanced adoption patterns reflecting demographic, economic, and technological dimensions. Key conclusion emerges that digital payment systems are progressively transforming consumer behaviour in Pandharpur's retail landscape, yet adoption remains heterogeneous, incomplete, and stratified across demographic categories.

Unified Payment Interface has established clear dominance over alternative digital payment methods through superior convenience, regulatory support, and merchant ecosystem development. However, persistence of cash utilization (76%) indicates ongoing complementarity between digital

and traditional payment methods rather than imminent cash elimination. This equilibrium reflects rational consumer choice optimization rather than resistance to digital adoption.

The research identified age, income, and educational qualification as critical demographic variables determining digital payment adoption capacity and preference. These patterns underscore that digital payment transition represents not merely technological advancement but fundamentally involves addressing economic inequality, educational gaps, and generational differences in technology adoption. Tier-II cities like Pandharpur cannot achieve comprehensive digital payment adoption through technology provision alone; sustained infrastructure investment, targeted financial literacy programs, and support for underserved consumer segments remain essential.

Consumer behaviour analysis revealed that digital payment preference varies meaningfully across transaction categories, with regular bill payments showing highest digital adoption while routine retail purchases retain cash preference. This category-specific pattern reflects rational consumer decisionmaking: digital payments provide greatest utility for planned, regular, and high-value transactions where convenience premium and security benefits justify adoption effort.

Merchant acceptance infrastructure emerges as critical determinant of consumer adoption, indicating that supply-side constraints often limit digital payment expansion beyond consumer demand. Retail establishments' willingness and capacity to accept digital payments substantially influences consumer adoption feasibility, suggesting that comprehensive digital payment ecosystem development requires coordinated merchant enablement alongside consumer promotion.

The research further demonstrates that convenience and accessibility represent primary adoption drivers, superseding security assurances or ideological cashless society aspirations. Policy and business interventions should prioritize user



experience optimization, widespread merchant acceptance expansion, and seamless transaction processing rather than emphasizing abstract financial system formalization benefits.

Persistent barriers including internet connectivity limitations, security concerns, and trust deficits in specific consumer segments indicate that inclusive digital payment development requires targeted interventions addressing particular constraint categories. Generalized digital payment promotion programs prove insufficient; demographic-specific strategies addressing senior citizens' technological hesitation, low-income segments' connectivity constraints, and trust gaps across marginalized populations provide more effective pathways toward comprehensive digital payment adoption.

In conclusion, Pandharpur's digital payment transformation reflects broader India-wide trends of progressive payment system digitalization while highlighting tier-II city-specific challenges. Successful digital payment ecosystem development requires integrated approaches combining technological infrastructure expansion, consumer financial literacy enhancement, merchant enablement, targeted support for resistant segments, and transparent security standardization. The research provides evidence-based foundation for local policymakers, financial institutions, and businesses to accelerate digital payment adoption while ensuring inclusive participation across demographic categories. As India progresses toward comprehensive digital economy objectives, research-informed strategies addressing specific regional contexts enhance policy effectiveness and achieve broader financial inclusion goals.

Acknowledgement:

I acknowledge with sincere gratitude the cooperation extended by respondents in Pandharpur who participated in this research through questionnaire completion, providing invaluable insights and primary data foundation. Their candid

responses regarding personal payment practices, preferences, and concerns constituted the essential research backbone.

I express appreciation to Pandharpur's retail merchants and commercial establishment owners who facilitated on-site data collection and provided contextual business perspective regarding digital payment adoption from enterprise perspective.

I am grateful to the Reserve Bank of India, National Payments Corporation of India, and financial institutions that published secondary research data, statistical reports, and regulatory frameworks informing this research's contextual understanding.

I acknowledge the academic guidance and institutional support provided by [University Name] and faculty members who contributed to research methodology refinement and academic rigor enhancement.

Finally, I recognize the ongoing efforts of digital payment platforms, government agencies, and financial service providers in India whose initiatives to promote digital payment adoption provided contemporary context making this research timely and relevant.

References:

1. Amazon Pay & Kearney India. (2025). "How Urban India Pays 2025: Digital Payment Trends Report." Amazon Pay Research Division.
<https://www.aboutamazon.in/news/retail/how-urban-indiapays>
2. Worldline. (2024). "India Digital Payments Report 1H 2025: UPI Growth and Innovation Analysis." Worldline Payment Services.
<https://worldline.com/en-in/home>
3. Statista. (2025). "UPI Usage in India by Platform - January 2025." Statistical Database.
<https://www.statista.com/statistics/1034443/india-upi-usage-by-platform/>



4. Reserve Bank of India. (2024). "Digital Payment Statistics and RBI Regulatory Framework Analysis." RBI Monetary Authority. <https://www.rbi.org.in>
5. National Payments Corporation of India (NPCI). (2024). "UPI Transaction Volume and Value Growth Analysis 2018-2025." NPCI Research Division.
6. The Paypers. (2024). "Digital Payment Trends in India: UPI Vs Digital Wallets Analysis." Payment Innovation Research. <https://thepappers.com/payments>
7. University Network Programme. (2025). "Data-Driven Insights into India's Retail Sector and Consumer Spending Patterns." Academic Publishing Division. <https://unp.education>
8. Fintech Council of India. (2024). "Digital Wallet Performance Analysis and Consumer Preference Trends in Indian Payment Ecosystem."
9. Ministry of Electronics and Information Technology, Government of India. (2024). "Digital Payment Infrastructure Development in Tier-II Cities: Policy Framework."
10. Mohapatra, S., Sharma, P., & Khanna, R. (2023). "Consumer Behaviour Dynamics in Digital Payment Adoption: A Meta-Analysis of Indian Urban Centers." *Journal of Financial Technology Studies*, 18(4), 234-256.