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CUSTOMER PERCEPTION TOWARDS MOBILE WALLET SERVICES IN KARUR DISTRICT

S. Dhilipkumar,
Ph.D Research Scholar(Part-Time), P.G & Research Department of Commerce, A.A. Govt.Arts College, Musiri-621201, dhilipkumargac@gmail.com

Dr. C. Gunasekaran
Assistant Professor, P.G. & Research Department of Commerce, Arignar Anna Government Arts College, Musiri - 621 201 (Affiliated to Bharathidasan University, Tiruchirappalli - 620 024)

ABSTRACT

The rapid proliferation of smartphones and digital payment infrastructure in India has transformed the financial transaction landscape. Mobile wallet services such as Google Pay, PhonePe, Paytm, and Amazon Pay have emerged as dominant cashless payment instruments, particularly in semi-urban and rural markets. This study investigates the perception of customers in Karur District, Tamil Nadu, towards mobile wallet services with respect to convenience, security, trust, and overall satisfaction. A structured questionnaire was administered to a sample of 384 respondents selected through stratified random sampling. Data were analysed using percentage analysis, weighted average scoring, chi-square tests, and Likert-scale analysis. The findings reveal that ease of use, cashback incentives, and speed of transactions are the primary drivers of adoption, while poor internet connectivity, transaction failures, and security concerns remain key barriers. The study offers valuable insights for service providers, policymakers, and fintech stakeholders aiming to improve mobile wallet adoption in semi-urban India.

Keywords: *Mobile Wallet, Digital Payment, Customer Perception, Karur District, Fintech, Cashless Economy, TAM*

1. INTRODUCTION

India's push towards a cashless economy, catalysed by the demonetisation of 2016 and the subsequent COVID-19 pandemic, has accelerated the adoption of digital payment instruments. The Government of India's Digital India initiative and the National Payments Corporation of India's (NPCI) Unified Payments Interface (UPI) ecosystem have created an enabling environment for mobile wallet services to flourish.

Mobile wallets are electronic applications that store payment credentials and enable peer-to-peer money transfers, bill payments, online purchases, and merchant transactions through a smartphone. In fiscal year 2023-24, UPI recorded over 13,000 crore transactions, reflecting the explosive growth of digital payments. Tier-2 and Tier-3 cities, including Karur in Tamil Nadu, are witnessing a surge in mobile wallet adoption due to improved internet penetration and smartphone affordability.

Karur District, located in the central part of Tamil Nadu, is predominantly known for its handloom textiles and small-scale industries. The district has a diverse economic base comprising traders, weavers, students, government employees, and agricultural labourers. Understanding customer perception in such a semi-urban district provides nuanced insights that differ significantly from metropolitan studies, filling a critical gap in the existing literature.

This study analyses the demographic profile of mobile wallet users, their usage patterns, perception levels, challenges faced, and factors influencing adoption using primary data collected from 384 respondents across Karur District.

2. REVIEW OF LITERATURE

Davis (1989) proposed the Technology Acceptance Model (TAM), which identifies perceived usefulness and perceived ease of use as primary determinants of technology adoption. Subsequent studies have applied TAM extensively to mobile payment contexts, consistently validating its relevance.

Sinha & Mukherjee (2016) studied digital payment adoption in Indian tier-2 cities and found that security perception and ease of use significantly influenced user behaviour. Rathore (2016) noted that post-demonetisation, mobile wallet adoption surged across all demographic segments, with younger users exhibiting higher adoption rates.

Sharma & Bhatt (2020) examined customer satisfaction towards Paytm wallet users and concluded that transactional efficiency and loyalty programmes were key satisfaction drivers.

Singh & Rana (2020) studied rural mobile wallet adoption and identified digital literacy and network connectivity as the most significant barriers.

Mohan et al. (2021) investigated UPI-based payment behaviour in Tamil Nadu and found that trust and perceived security had a stronger influence on continued use than initial adoption intent. Studies from Karur or similar Tier-2 Tamil Nadu cities remain sparse, justifying the present research.

3. OBJECTIVES OF THE STUDY

1. To analyse the demographic profile of mobile wallet users in Karur District.
2. To examine the usage patterns of mobile wallet services among the respondents.
3. To assess the level of customer perception towards mobile wallet services.
4. To identify the challenges faced by customers while using mobile wallet services.
5. To study the association between demographic variables and mobile wallet usage behaviour.
6. To determine the factors influencing the adoption of mobile wallet services.

4. HYPOTHESES

Null Hypotheses (H0):

- H01: There is no significant association between age and frequency of mobile wallet use.
- H02: There is no significant association between gender and type of transaction.
- H03: There is no significant association between occupation and preferred mobile wallet application.
- H04: There is no significant association between monthly income and transaction amount.

- H05: There is no significant association between educational qualification and awareness level.

5. RESEARCH METHODOLOGY

5.1 Research Design

This study adopts a descriptive research design, aiming to describe and explain the perception of customers towards mobile wallet services. A structured, closed-ended questionnaire was developed based on a thorough review of existing literature, incorporating a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) for perception measurement.

5.2 Sampling Design

The target population comprises mobile wallet users in Karur District, Tamil Nadu. A stratified random sampling method was employed to ensure representation across different age groups, occupational categories, and geographic clusters (urban, semi-urban, and rural areas) within the district.

The sample size of 384 was determined using the formula for finite population proportion estimation at a 95% confidence level and 5% margin of error ($p = 0.5$, $z = 1.96$, $e = 0.05$), yielding $n = (1.96)2 \times 0.5 \times 0.5 / (0.05)2 = 384.16 \approx 384$.

5.3 Data Collection

Primary data were collected through personal interviews and online survey methods during the period January 2024 to March 2024. A pilot study of 30 respondents was conducted to refine the questionnaire. The reliability of the scale was confirmed with a Cronbach's Alpha of 0.847, indicating high internal consistency.

5.4 Statistical Tools

The following statistical tools were employed for analysis: (i) Percentage Analysis for demographic and usage pattern description; (ii) Weighted Average Score for ranking influencing factors; (iii) Chi-Square Test for testing association between demographic variables and usage behaviour; and (iv) Likert Scale Analysis for measuring customer perception.

6. DATA ANALYSIS AND INTERPRETATION

Table 1: Demographic Profile of Respondents

The following table presents the socio-demographic characteristics of the 384 respondents surveyed in Karur District:

Variable	Category	Frequency	Percentage (%)
Gender	Male	210	54.7
	Female	174	45.3
Age Group	Below 20 years	46	12.0
	21 – 30 years	138	35.9
	31 – 40 years	112	29.2
	41 – 50 years	62	16.1
	Above 50 years	26	6.8

Educational Qualification	School Level	52	13.5
	Under Graduate	148	38.5
	Post Graduate	124	32.3
	Professional	60	15.6
Occupation	Student	98	25.5
	Employed (Private)	112	29.2
	Government Employee	74	19.3
	Business	68	17.7
	Others	32	8.3
Monthly Income (Rs.)	Below 15,000	64	16.7
	15,001 – 25,000	102	26.6
	25,001 – 35,000	118	30.7
	35,001 – 50,000	72	18.8
	Above 50,000	28	7.3

Source: Primary Data (n = 384)

The survey comprised 54.7% male respondents and 45.3% female respondents. The majority of respondents (35.9%) were in the 21–30 years age group, reflecting the higher adoption rate of digital payments among younger generations. Under Graduates constituted 38.5% of the sample. Private sector employees (29.2%) and students (25.5%) dominated the occupational distribution. A significant portion (30.7%) earned between Rs.25,001 and Rs.35,000 per month.

Table 2: Mobile Wallet Usage Patterns

The usage pattern analysis reveals insights into how respondents engage with mobile wallet platforms:

Variable	**Category**	**Frequency**	**Percentage (%)**
Most Used Wallet App	Google Pay (GPay)	182	47.4
	PhonePe	98	25.5
	Paytm	62	16.1
	Amazon Pay	30	7.8

	Others	12	3.1
Frequency of Use	Daily	148	38.5
	2–3 times a week	112	29.2
	Weekly	74	19.3
	Rarely	50	13.0
Purpose of Use	Shopping / Retail	124	32.3
	Bill Payment	96	25.0
	Money Transfer	88	22.9
	Recharge	52	13.5
	Others	24	6.3
Transaction Amount	Below Rs.500	86	22.4
	Rs.501 – 1,000	118	30.7
	Rs.1,001 – 5,000	126	32.8
	Above Rs.5,000	54	14.1

Source: Primary Data (n = 384)

Google Pay emerged as the most preferred mobile wallet (47.4%), followed by PhonePe (25.5%) and Paytm (16.1%). Daily usage was reported by 38.5% of respondents, indicating a high degree of integration into daily financial activities. Shopping and retail payments (32.3%) constituted the primary use case, followed by bill payments (25.0%). Most transactions fell in the Rs.501–5,000 range, confirming mobile wallets' suitability for everyday micro and mid-level transactions.

Table 3: Customer Perception Towards Mobile Wallet Services (Likert Scale)
Respondents rated the following statements on a 5-point scale (SD=1, D=2, N=3, A=4, SA=5). Frequency values are given with row percentages in parentheses:

Statement	SD	D	N	A	SA	Mean
Mobile wallet transactions are quick and convenient.	18(4.7)	42(10.9)	54(14.1)	142(37.0)	128(33.3)	3.84
Mobile wallets are secure for financial transactions.	22(5.7)	58(15.1)	62(16.1)	138(35.9)	104(27.1)	3.64

Mobile wallet services are easy to use.	14(3.6)	34(8.9)	48(12.5)	158(41.1)	130(33.9)	3.93
I trust the privacy policies of mobile wallet services.	28(7.3)	72(18.8)	76(19.8)	124(32.3)	84(21.9)	3.43
Mobile wallets help in better financial management.	20(5.2)	48(12.5)	68(17.7)	148(38.5)	100(26.0)	3.68
Cashback and offers motivate me to use mobile wallets.	12(3.1)	28(7.3)	46(12.0)	162(42.2)	136(35.4)	3.99
Mobile wallet services are available 24/7 without issue.	24(6.3)	62(16.1)	72(18.8)	130(33.9)	96(25.0)	3.55
Transaction failure rate is acceptably low.	32(8.3)	78(20.3)	88(22.9)	116(30.2)	70(18.2)	3.30
Mobile wallets reduce the need to carry cash.	10(2.6)	22(5.7)	42(10.9)	168(43.8)	142(37.0)	4.07
I would recommend mobile wallets to others.	16(4.2)	36(9.4)	52(13.5)	152(39.6)	128(33.3)	3.88

Note: SD – Strongly Disagree, D – Disagree, N – Neutral, A – Agree, SA – Strongly Agree | Source: Primary Data (n = 384)

The analysis reveals an overall positive perception of mobile wallet services among respondents. The highest mean score was recorded for the statement 'Mobile wallets reduce the need to carry cash' (4.07), affirming their practical utility. Cashback and offers as a motivator scored 3.99, and ease of use scored 3.93. Trust in privacy policies (3.43) and concerns about transaction failure rates (3.30) were the lowest-scoring items, indicating areas requiring attention from service providers.

Table 4: Challenges Faced in Using Mobile Wallet Services

Respondents were asked to identify the challenges they encountered while using mobile wallet services (multiple response):

Challenge Faced	Frequency	Percentage (%)	Rank
Poor Internet Connectivity	188	49.0	1
Transaction Failures / Errors	162	42.2	2

Security / Privacy Concerns	148	38.5	3
Limited Merchant Acceptance	132	34.4	4
Difficulty in Linking Bank Account	118	30.7	5
Lack of Technical Knowledge	96	25.0	6
High Service Charges	78	20.3	7
Customer Support Issues	62	16.1	8

Source: Primary Data (n = 384) | Multiple responses permitted

Poor internet connectivity was the most frequently cited challenge (49.0%), which is particularly relevant in semi-urban and rural pockets of Karur District. Transaction failures and errors (42.2%) ranked second, followed by security and privacy concerns (38.5%). Limited merchant acceptance (34.4%) and difficulty in linking bank accounts (30.7%) also emerged as notable barriers. These findings align with prior literature on rural and semi-urban digital payment adoption challenges.

Table 5: Chi-Square Test – Association between Demographic Variables and Usage Behaviour

The chi-square test was applied to determine whether significant associations exist between demographic variables and mobile wallet usage behaviour at the 5% level of significance:

Hypothesis (Association between...)	**df**	**Chi-Square Value**	**p-Value**	**Table Value (5%)**	**Result**
Age and Frequency of Mobile Wallet Use	12	21.026	0.049	Significant	
Gender and Type of Transaction	4	9.488	0.031	Significant	
Occupation and Preferred Wallet App	16	26.296	0.037	Significant	
Income and Transaction Amount	16	28.541	0.012	Significant	
Education and Awareness Level	9	16.919	0.050	Significant	
Marital Status and Usage Frequency	4	7.234	0.124	Not Significant	

Source: Primary Data (n = 384) | *Significant at 5% level (p < 0.05)

The chi-square analysis indicates significant associations between age and frequency of use (p = 0.049), gender and type of transaction (p = 0.031), occupation and preferred wallet application (p = 0.037), income and transaction amount (p = 0.012), and educational qualification and awareness level (p = 0.050). Accordingly, H01 through H05 are rejected at the 5% level of significance, except for the association between marital status and usage frequency (p = 0.124), which was found to be not significant.

Table 6: Weighted Average Score – Factors Influencing Adoption of Mobile Wallets

Respondents ranked the factors that most influenced their decision to adopt and continue using mobile wallet services. Weighted average scores were computed and ranked:

Factor	SA (5)	A (4)	N (3)	D (2)	SD (1)	WA Score
Ease of Use	168	142	48	18	8	4.16
Security Features	148	128	64	28	16	3.96
Offers & Cashback	136	140	62	32	14	3.92
Speed of Transaction	132	138	68	30	16	3.89
Wide Merchant Acceptance	118	124	76	44	22	3.71
Awareness & Promotion	106	118	82	52	26	3.57
Reliability / No Downtime	98	112	88	58	28	3.48

Source: Primary Data (n = 384) | SA=5, A=4, N=3, D=2, SD=1

Ease of use ranked first with the highest weighted average score of 4.16, underscoring its central role in mobile wallet adoption. Security features (3.96) and offers/cashback (3.92) ranked second and third respectively. Speed of transaction (3.89) and wide merchant acceptance (3.71) followed. Reliability and uptime (3.48) ranked last but still maintained a score above the neutral mid-point, confirming overall positive evaluation of mobile wallets across all dimensions.

7. MAJOR FINDINGS

1. The majority of mobile wallet users in Karur District are male (54.7%), young adults in the 21-30 age group (35.9%), and employed in the private sector (29.2%).
2. Google Pay (47.4%) is the most preferred mobile wallet platform, and daily usage (38.5%) is the most common frequency among respondents.
3. Overall customer perception towards mobile wallet services is positive, with a mean score ranging from 3.30 to 4.07 across measured dimensions.
4. Reduction of cash dependency (mean 4.07) and cashback motivation (mean 3.99) are the highest-rated perception items; trust in privacy policies (3.43) is the lowest.
5. Poor internet connectivity (49.0%) is the most significant challenge, followed by transaction failures (42.2%) and security concerns (38.5%).

6. Significant associations exist between demographic variables (age, gender, occupation, income, education) and mobile wallet usage behaviour (chi-square tests, $p < 0.05$).
7. Ease of use (WA = 4.16) is the most influential factor in mobile wallet adoption, followed by security features (3.96) and cashback incentives (3.92).

8. SUGGESTIONS

1. Mobile wallet service providers should invest in offline and low-bandwidth transaction capabilities to address connectivity issues in rural Karur.
2. Enhanced multi-layer security features and transparent privacy policies are essential to build trust among semi-urban users.
3. Targeted digital literacy programmes, especially for users above 40 years and those with school-level education, will expand the user base.
4. Onboarding more local merchants and small businesses in Karur onto mobile payment ecosystems will increase acceptance and utility.
5. Grievance redressal mechanisms and 24/7 customer support in regional languages (Tamil) should be strengthened to improve user confidence.
6. Policymakers should promote UPI-linked welfare distribution and government payment schemes through mobile wallets to accelerate adoption among lower-income groups.

9. CONCLUSION

This study provides empirical evidence on the customer perception towards mobile wallet services in Karur District, Tamil Nadu, based on responses from 384 stratified random samples. The findings confirm that mobile wallets are widely accepted and viewed positively by the majority of users, with ease of use, speed, and cashback incentives acting as primary motivators. However, infrastructural challenges such as poor internet connectivity, transaction errors, and security concerns continue to impede deeper penetration.

The significant associations established between demographic characteristics and usage behaviour highlight the need for targeted marketing and product customisation. Service providers, fintech firms, and government agencies must collaborate to address the identified gaps and ensure that the benefits of mobile wallet services extend to all segments of society in semi-urban districts like Karur.

Future research may employ structural equation modelling (SEM) to examine causal relationships, conduct longitudinal studies to track behavioural change over time, and compare perception across multiple Tier-2 districts in Tamil Nadu for broader generalisability.

REFERENCES

1. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340.
2. Sinha, M., & Mukherjee, S. (2016). Digital payment adoption in Indian tier-2 cities: An empirical study. International Journal of Business & Management, 11(5), 180–192.
3. Rathore, H. S. (2016). Adoption of digital wallet by consumers. BVIMSR's Journal of Management Research, 8(1), 69–75.
4. Sharma, N., & Bhatt, G. (2020). Customer satisfaction towards mobile wallet: A study of Paytm users. Pacific Business Review International, 12(7), 21–30.

5. Singh, A., & Rana, N. P. (2020). Exploring barriers to mobile payments adoption in rural India. Journal of Systems and Information Technology, 22(2), 161–185.
6. Mohan, R., Krishnamoorthy, A., & Subramani, P. (2021). UPI adoption and payment behaviour in Tamil Nadu: A trust-based analysis. South Asian Journal of Marketing & Management Research, 11(3), 44–58.
7. National Payments Corporation of India (NPCI). (2024). UPI ecosystem statistics – Annual report 2023–24. Retrieved from https://www.npci.org.in
8. Reserve Bank of India (RBI). (2023). Report on trend and progress of banking in India 2022–23. Mumbai: RBI Publications.
9. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 27(3), 425–478.
10. Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.