

# From Remittance to E-Commerce: How Electronic Wallets Change the Way Indians Transact

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**Abstract:** *In today's digital realm, electronic wallets (E-wallets) have seamlessly integrated into our daily transactions, offering unparalleled convenience and efficiency to users worldwide. This research paper aims to delve into the impact of various E-wallets, including well-known platforms like Paytm and Google Pay, on consumer preferences. Through an extensive study, approximately 250 individuals were surveyed to discern their E-wallet preferences and the factors steering their decisions. Leveraging statistical methodologies such as 2-sample T-tests and graphical analysis, this research investigates the relationship between independent variables and E-wallet adoption. Initial findings highlight the crucial role of factors such as user experience, security features, and brand reputation in shaping consumer preferences for E-wallets. This study contributes significantly to our understanding of consumer behaviour in the digital payment ecosystem, offering valuable insights into the determinants influencing E-wallet usage across diverse demographics.*

**Keywords:** Electronic wallets, Digital payments, Security features, Consumer preferences and behaviour, User experience

## 1. Introduction

In today's digital era, electronic wallets (E-wallets) have become indispensable tools for managing finances. These digital platforms offer users worldwide unparalleled convenience and efficiency, transforming the financial landscape. E-wallets serve as secure and streamlined alternatives to traditional payment methods, enabling users to store, manage, and transact funds electronically. The evolution of E-wallets represents a significant shift in financial technology (FinTech), revolutionizing how individuals handle money. Initially conceived as digital counterparts to physical wallets, E-wallets have evolved into sophisticated platforms capable of facilitating various transactions, from online purchases to peer-to-peer transfers. E-wallets play a crucial role in promoting financial inclusion and empowering individuals from diverse socio-economic backgrounds. By providing access to banking services and facilitating seamless transactions, E-wallets help bridge the gap between the unbanked population and formal financial systems. Furthermore, E-wallets have become indispensable in the global digital economy, catering to the needs of consumers, businesses, and financial institutions. As E-wallet adoption continues to rise, understanding the factors influencing consumer preferences and adoption patterns becomes crucial.

This research paper aims to explore the multifaceted world of E-wallets, focusing on popular platforms like Paytm and Google Pay. Through a comprehensive study involving approximately 250 individuals, we seek to uncover the complex dynamics shaping consumer preferences in the digital payment ecosystem. Utilizing statistical techniques such as 2-sample T-tests and graphical analysis, this research aims to clarify the correlation between independent variables and E-wallet adoption. Preliminary findings indicate that factors such as user experience, security features, and brand reputation significantly influence consumer preferences for E-wallets. By

shedding light on these key factors, this study contributes to a deeper understanding of consumer behaviour in the digital payment landscape. Moreover, it provides valuable insights into the driving forces behind E-wallet usage across diverse demographics, enabling informed decision-making and strategic interventions in the rapidly evolving FinTech sector.

## 2. Literature Review

Perceived benefits and risks: Studies by Kumari et al. (2021, 2020) explore how users weigh the benefits (convenience, security) against risks (security breaches, privacy concerns) when deciding to adopt mobile wallets. Security and privacy concerns: Mittal & Rana (2018), Kumari & Kumar (2022) highlight security and privacy as significant deterrents to adoption. Financial literacy can moderate these concerns (Kumari & Kumar, 2022). Service quality and trust: Kumari & Prakash (2020) find a positive correlation between perceived service quality, trust, and mobile wallet usage intention. Brand image and promotions: Sharma & Gulati (2021) suggest that a strong brand image and attractive promotional offers can influence adoption. Demonetization: Kumari & Sinha (2020) examine the impact of demonetization, a government policy that limited cash flow, on mobile wallet adoption and found a positive influence. Singh & Kaur (2019) explore various factors influencing the intention to use mobile wallets. Adharsh et al. (2018) focus on factors influencing e-wallet adoption among young people in Chennai. Kumar & Gulati (2021) investigate factors affecting customer loyalty towards mobile wallet. Wang et al. (2020) explores security mechanisms for blockchain-enabled mobile wallets. Hernandez-Ramos et al. (2019) examines security vulnerabilities in NFC-based mobile wallet payments. Ali et al. (2022) investigates how mobile wallet app design characteristics influence impulse buying behaviour. Yue et al. (2023) offers a comprehensive review on how mobile wallets contribute to the sustainability of

payment services. Al-Somali et al. (2023) explores how mobile wallet service features influence customer satisfaction and loyalty. Pillai & Prabhakaran (2020) reviews the role of trust in mobile wallet adoption and its impact on user satisfaction.

### Overview of Popular E-Wallets

In the dynamic landscape of digital payments, several leading E-wallet platforms have emerged as pioneers, revolutionizing the way individuals manage their finances. Among these, Paytm, PhonePe, and Google Pay stand out as prominent players, each offering unique features and user experiences tailored to meet the diverse needs of consumers.

Paytm, often hailed as India's leading E-wallet platform, has established itself as a versatile financial super app. With its intuitive interface and comprehensive range of services, Paytm allows users to seamlessly conduct transactions, pay bills, book tickets, and even invest in mutual funds, all within a single platform. Its widespread acceptance among merchants and extensive cashback offers have contributed to its widespread adoption across urban and rural areas alike.

PhonePe, backed by tech giant Walmart, has rapidly gained traction in the Indian market with its user-friendly interface and innovative features. As a UPI-based payment app, PhonePe offers lightning-fast transactions and seamless integration with various banking services. Its extensive merchant network and emphasis on user rewards have propelled its growth, making it a preferred choice for millions of users seeking convenience and reliability in their digital transactions.

Google Pay, powered by the tech juggernaut Google, has leveraged its global brand presence to carve a niche in the Indian E-wallet market. With its simple yet powerful interface, Google Pay enables users to send and receive money, pay bills, and even make online purchases with ease. Its integration with Google services and robust

security features have instilled trust among users, driving its rapid adoption across the country.

In terms of market penetration, these E-wallet platforms have significantly expanded their reach, penetrating both urban and rural markets through strategic partnerships and innovative marketing campaigns.

### 3. Research Methodology

This study utilizes a mixed-methods approach, incorporating both primary and secondary data sources to gain comprehensive insights into the factors influencing consumer preferences.

Primary data collection involved distributing a survey via Google Forms to a convenience sample of respondents. Responses were gathered, categorized, and analysed to extract meaningful insights.

Secondary data sources, including journals, magazines, and websites, were consulted to complement and enrich the findings obtained from the primary data. Statistical analysis was conducted using hypothesis testing techniques, such as t-tests, and Excel statistics, to rigorously examine the relationships between variables and draw reliable conclusions from the data.

#### 3.1 Research Objectives

This research aims to uncover emerging trends in the rapidly growing E-wallet sector and explore the factors influencing consumer usage patterns.

1. Deep dive into the Indian E-wallet market and growth in recent years.
2. To identify the factors influencing E-wallet adoption and user preferences.
3. To conduct a comparative study of prominent E-wallets in India.

### 4. Research Process Work Flow

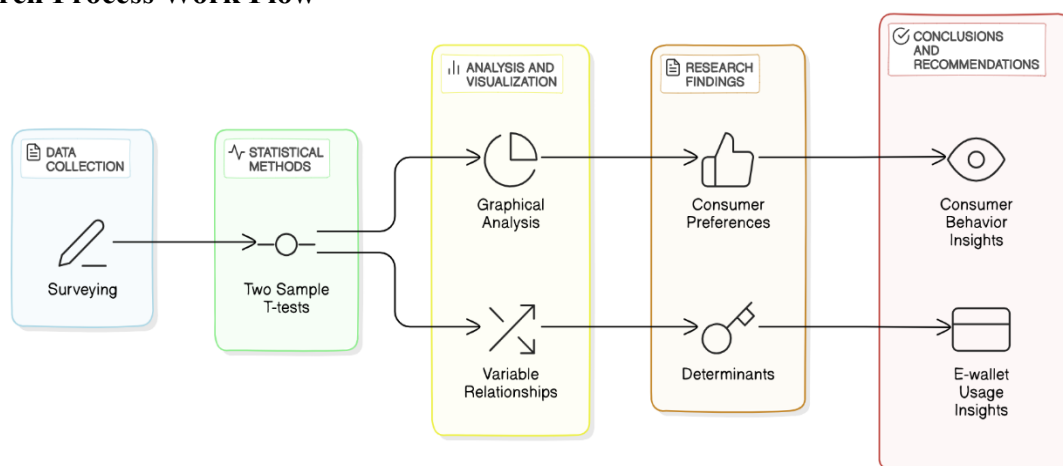


Fig 4.1: Research Process for E-Wallet Usage

The Figure 4.1. shows the steps of a market research process, likely focused on understanding consumer

preferences and behaviour related to e-wallet usage. Here's a breakdown of the steps:

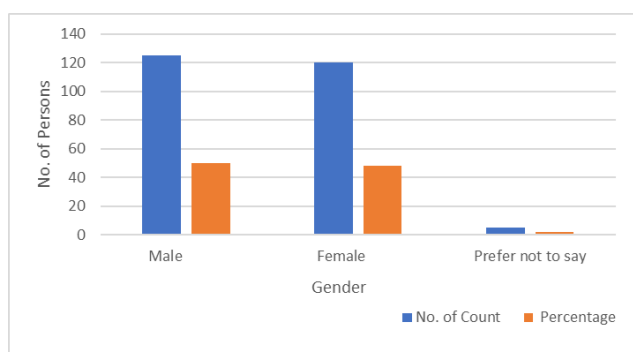
- **Data Collection:** This is the first step in the research process. Here, researchers gather information about the target audience. The diagram shows two methods for data collection:
- **Surveying:** This method involves asking consumers a set of questions to gather their opinions, preferences, and experiences.
- **Statistical Methods:** This could refer to collecting data from existing sources or conducting experiments to gather data.
- **Analysis and Visualization:** In this stage, researchers analyse the data they collected in the first step. They may use statistical methods to find patterns and trends in the data. The diagram shows two types of analysis:
- **Graphical Analysis:** This could involve creating charts and graphs to represent the data visually. This can help researchers identify patterns and trends more easily.
- **Consumer Preferences and Behaviour Insights:** This refers to the insights gained from analyzing the data about consumer preferences and behaviour related to e-wallet usage.
- **Findings:** After analyzing the data, researchers summarize their findings in this step. The specific findings will depend on the research questions that were asked in the data collection stage.

## 5. Stimulation and Results

### 5.1. Demographic Insights and Trends

**Table 5.1:** Responses of Male and Female in Total Sample

Gender	No. of Count	Percentage
Male	125	50
Female	120	48
Prefer not to say	5	2
Grand Total	250	100

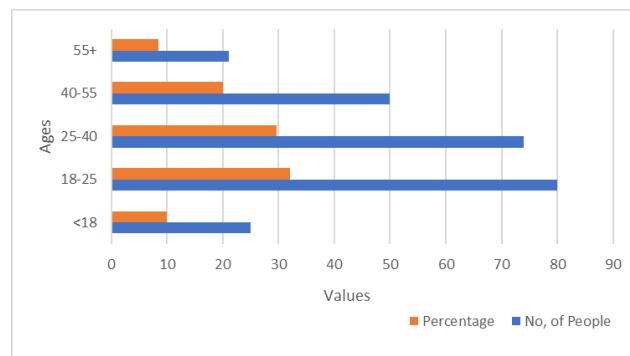


**Fig 5.2:** Responses of Male and Female in Chart

The Figure 5.2. shows the survey included an equivalent number of participants from both genders to ensure balance in the sample.

**Table 5.3:** Count of Responses Based on Age Group

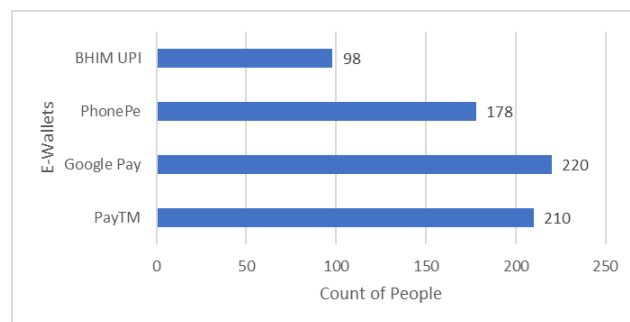
Age Group	No. of People	Percentage
< 18	25	10
18-25	80	32
25-40	74	29.6
40-55	50	20
55+	21	8.4



**Fig 5.4:** Responses and Percentage Based on Age Group in Chart

The Figure 5.4. shows a reasonably varied sample was gathered with representation across various age groups. From the data collected from 250 respondents, almost 10% of the sample consisted of school and college students in the age group of below 18. The highest count of using e-wallet in the age group of 18-25 years. The lowest count of using e-wallet is 21 people and there are 55+ aged people.

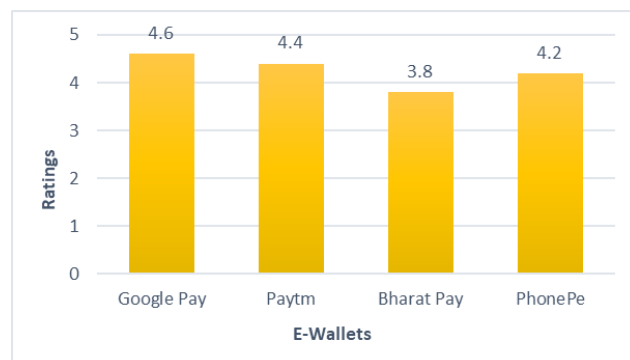
### 5.2. The Prominent E-Wallets in Our Country



**Fig 5.5:** A Major E-Wallet Using in Our Country

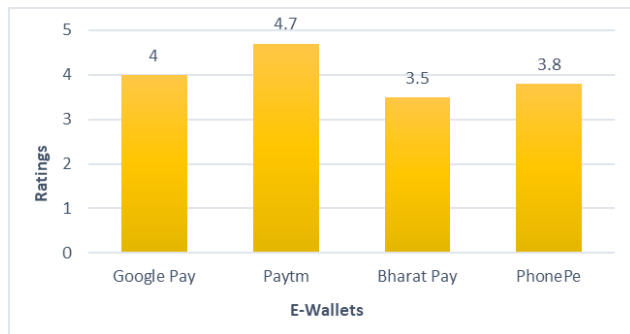
The Figure 5.5. shows the count of people using which e-wallet. Google Pay has the most users, at around 220. Paytm is close behind with around 210 users. PhonePe has around 178 users. BHIM UPI has the fewest users, at around 98. Overall, the chart suggests that Google Pay and Paytm are the most popular e-wallet providers in India, with PhonePe a distant third and BHIM UPI lagging behind.

### 5.3. Factors Affecting Consumer Preferences



**Fig 5.6:** The Security and Convenience Ratings of E-Wallets

The Figure 5.6. shows the distribution of ratings given to e-wallets by an users, The ratings are likely based on some combination of security features and convenience factors. We know that the total number of responses is 250. Out of that 250, the chart shows that the Google Pay has the highest rating for security and convenience is 4.6. Paytm has the second highest rating for security and convenience 4.4. The PhonePe has got average rating is 4.2. The Bharat Pay has got the lowest rating is 3.8. Overall, the chart suggests that Google Pay is the most highly-rated app for both security and convenience. Paytm is also rated well on both security and convenience. PhonePe and Bharat Pay have lower ratings but still receive average ratings for security and convenience.



**Fig 5.7:** The Offers and Benefit Ratings of E-Wallets

The Figure 5.7. shows the distribution of ratings given by users on the offers and benefits provided by e-wallets. Paytm leads the chart with a rating of 4.7, indicating that users find the offers and benefits provided by Paytm to be highly satisfactory. Google Pay is rated at 4, which is also a commendable score. Though it is lower than Paytm, a rating of 4 out of 5. PhonePe With a rating of 3.8, PhonePe is slightly below Google Pay, while this is still a good rating. Bharat Pay e-wallet has the lowest rating among the four, at 3.5. Although this rating is above average. Overall, the chart suggests that Paytm is the most highly-rated app for both offers and benefits. Google Pay is also rated well but slightly less then Paytm. PhonePe and Bharat Pay have lower ratings but still receive average ratings for offers and benefits.

## 6. Conclusion

The research findings underscore the significance of user experience, security features, and brand reputation in consumer preferences for E-wallets. By analyzing data from approximately 250 individuals, this study sheds light on the intricate dynamics of consumer behaviour in the digital payment landscape. The adoption of E-wallets is influenced by a multitude of factors, and understanding these determinants is crucial for businesses and policymakers seeking to enhance user adoption and satisfaction. Ultimately, this research contributes valuable insights that can inform strategies aimed at optimizing E-wallet offerings and fostering greater acceptance among diverse demographic segments.

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