






STUDY ON CONSUMER PERCEPTION TOWARDS E-WALLETS: A COMPREHENSIVE ANALYSIS USING PRIMARY AND SECONDARY DATA

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Abstract. The increasing digitalization of financial transactions has led to a surge in the usage of electronic wallets (E-wallets) worldwide. This study aims to investigate consumer perceptions towards E-wallets by employing a comprehensive research approach that incorporates both sources of data such as primary and secondary. The study focuses on understanding the factors influencing consumer adoption and usage patterns of E-wallets, exploring the perceived benefits and challenges associated with their usage. Additionally, it aims to identify any variations in consumer perception across different demographic segments and geographical regions.

The primary data collection will involve a diverse sample of consumers, ensuring representation from various age groups, income levels, and educational backgrounds. Through quantitative analysis of survey responses and qualitative insights from interviews, the study seeks to unveil the nuanced aspects of consumer attitudes toward E-wallets. Furthermore, the study will leverage secondary data to provide a comprehensive overview of the global E-wallet market, including its growth trends, key players, and regulatory landscape. This analysis will contextualize the primary findings within the broader industry context, offering a more holistic understanding of consumer perceptions. The end results of this research are expected to contribute useful insights to E-wallet providers, financial institutions and policy makers helping them enhance their strategies and offerings to better align with consumer preferences. Additionally, the findings will be relevant for academics and researchers interested in the evolving dynamics of digital finance and consumer behavior.

Keywords: Digital, Perception, E-Wallet, Consumer Behavior.

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1 INTRODUCTION

The growing use of electronic wallets and the expansion of electronic payment methods has caused a paradigm change in the digital world in recent years. Understanding how E-Wallet usage affects consumer perception is crucial, especially in light of the current technological revolution that is changing how consumers engage with financial transactions. This study looks at how e-wallets affect consumer attitudes, habits, and satisfaction levels in an effort to evaluate the aspects of this digitalized revolution.

The global surge in E-Wallet usage can be attributed to the speed, and secured features they enable, transforming traditional methods. However, as consumers increasingly rely on these digital financial tools, it is imperative to assess the nuanced impact on their perceptions. This study endeavors to bridge the gap in the existing literature by systematically investigating the factors influencing consumer attitudes towards E-Wallets, considering both the positive and potential challenges associated with their widespread adoption.

As E-Wallets become increasingly integrated into daily financial transactions, businesses, policymakers, and financial institutions can benefit from comprehensive insights into consumer perceptions. This research aspires to provide actionable knowledge that can guide strategic decision-making, fostering a more informed approach toward the continued evolution of digital financial ecosystems.

2 REVIEW OF LITERATURE

Using the path analysis model, [7] conducted research on the effect of e-wallets on consumer satisfaction. This study uses Amos visual path-based analysis to investigate whether or if there is a relationship between consumer happiness and the issues, dangers, and solutions associated with utilizing e-wallets. In order to verify the link between variables, measurement models are constructed. Among the conclusions is a notable variation in the correlation of solution in electronic wallets. There is a negative correlation between issues and e-wallet user satisfaction.

[7] carried out research in the Finland region to learn more about the use of mobile wallets by consumers. Potential respondents in Finland were issued a questionnaire as part of the quantitative design of this study. The study assesses the state of the mobile wallet market. The study's conclusions suggest that although respondents had good sentiments regarding using mobile wallets, the technology is still in its early stages of adoption. According to the study's findings, depending on the circumstances and level of user pleasure, the trust factor might have a favorable or negative effect on users' adoption.

3 STATEMENT OF PROBLEM

In the rapidly evolving landscape of digital finance, electronic wallets (e-wallets) have emerged as a prominent means of conducting financial transactions. Despite the increasing prevalence of e-wallets, there exists a gap in our understanding of consumer perceptions towards these digital payment solutions. The adoption and sustained usage of e-wallets are influenced by a myriad of factors, including security concerns, user-friendliness, perceived benefits, and societal attitudes toward digital financial instruments. Therefore, there is a need for a comprehensive investigation into the factors shaping consumer perceptions towards e-wallets to inform both industry stakeholders and policymakers. This study aims to identify and analyze the key determinants that impact consumer attitudes, thus contributing to the broader discourse on the integration of e-wallets into the financial habits of modern consumers.

4 OBJECTIVE

- To research the top 5 Indian digital wallet providers.
- To ascertain users awareness of and opinions regarding electronic wallets.
- To assess the benefits and drawbacks of the e-wallet system.
- In order to examine potential developments in electronic -wallet.

5 RESEARCH METHODOLOGY

The study location was selected in Chennai city. Convenience sampling, a non-random sample technique, is employed for the current investigation. To ensure that the conclusion is accurate, careful thought should be given to the data collection process. The term "sample size" describes a number of components that this study will have, such as 130 respondents. A primary information in this study, data will be gathered by the survey approach using a structured questionnaire. Secondary data: Company websites, magazines, online sources, and other sources will all be used to gather secondary data. This study's instrument is a percentage analysis carried out with MSEXCEL assistance.

6 LIMITATIONS OF THE STUDY

- The research is constrained to the Chennai city due the time constraints.
- The study's sample size is quite modest. As such, the findings cannot be interpreted as universal.
- This study is subject to the constraints of the non-random sample technique.
- As technology advances, consumer views occasionally shift.

7 HISTORY - E-WALLET

History of E-Wallets in India can be traced through significant milestones are early 2000's: The introduction of online banking and digital payments laid the foundation. However, widespread adoption was limited due to technological constraints and low internet penetration. 2005-2010: Companies like Paytm and MobiKwik started as recharge platforms for mobile phones. This period marked the initial foray into digital transactions. 2010-2015, the broadening of smartphones as well as improved network access facilitated the expansion of E-Wallets. Paytm, in particular, diversified its services, allowing users to make various payments, including utility bills and online shopping. Demonetization (2016) in the Indian government's demonetization moves in 2016 acted as a catalyst for E-Wallet adoption. The sudden cash crunch led to a surge in digital transactions, with E-Wallets becoming a popular choice. UPI 2016-Digital payments were further transformed with the NPCI launch of UPI. A seamless and interoperable payment experience is offered by the numerous E-Wallets that have integrated UPI into their systems. Regulatory Changes-The Reserve Bank of India (RBI) introduced regulations to govern E-Wallets, ensuring security and consumer protection. These regulations are aimed at fostering trust in digital transactions. Cryptocurrency and Blockchain-The exploration of blockchain technology and the rise of cryptocurrency added another dimension to digital transactions. Some E-Wallets began exploring the integration of cryptocurrencies into their platforms.

8 TOP 5 DIGITAL WALLET SERVICE PROVIDERS IN INDIA AND THEIR COMPANY PROFILE

Table 1. Paytm

Owned by:	One 97 Communication
Founder:	Vijay Shekar Sharma
Established in:	2010
Head Quarters	Noida, India

Paytm is an Indian e-payments platform that supplies a wide range of services, including mobile recharging facilities, online shopping, bill payment and financial services. This application has obtained prominence as a mobile wallet but has expanded to include features like Paytm Payments Bank, Paytm Mall, and more. Users are able to link their bank accounts to make transactions through the application. Keep in mind that developments in Paytm's services may have occurred after my last training data in January 2022.

Table 2. Gpay

Owned by	Google India Digital Service Private Limited
Founder:	Sujith Narayanan
Established in:	2011
Head Quarters:	New Delhi, India

Google Pay, commonly known as GPay which was introduced by Google. It enables the users to make payments, both online and offline using their smartphones. Google Pay supports various functionalities, including sending money to friends, paying bills, and making purchases. Additionally, Google Pay incorporates security features like tokenization to enhance the safety of financial transactions. Please note that details about Google Pay may have evolved since my last training data in January 2022.

Table 3. Phonepe

Owned by:	Flipkart
Founder:	Sameer Nigain, Burzin Engineer, Rahul Chari
Established in:	2015
Head Quarters:	Bangalore, India

PhonePe is an Indian digital payment and financial technology platform. It provides users with a range of services, such as peer-to-peer money transfers, mobile recharges, and online shopping. It operates as a UPI app, which can be linked to their bank account and make seamless transactions. It also offers various financial products such as insurance and mutual funds. Keep in mind that developments in PhonePe's services may have occurred after my last training data in January 2022.

Table 4. Mobikwik

Owned by:	One Mobikwik System Private Limited
Founder:	Bipin Preet Singh and Upasana taku
Established in:	2009
Head Quarters:	Gurgaon, India

It is an online payment platform. It enables the users to store cash in the wallet and make online transactions, including , bill payments, utility payments and recharge.

MobiKwik also facilitates the purchase of goods and services on various platforms. Users can link their bank accounts and other monetary cards to the app for transactions. The platform has expanded its services to include features like digital gold, loan offerings, and more. Note that developments in MobiKwik's services may have occurred after my last training data in **January 2022**.

Table 5. Amazon Pay

Owned by:	Amazon
Founder:	Jeff bezos
Established in:	2007
Head Quarters:	Bangalore, India

This E-Wallet facility is offered by Amazon, a multinational e-commerce and technology company. It allows users to carry out online payments on other websites and apps using their account credentials. It simplifies the checkout process by using the payment information stored in users' Amazon accounts, providing a simple and safe way to carry on transactions. In addition, Amazon Pay can be used for bill payments, recharges, and other financial transactions. Please note that features and services related to Amazon Pay may have evolved since my last training data in January 2022.

9 ADVANTAGES OF E-WALLET

Convenience-E-wallets offer quick and easy access to money, allowing quick balance checks, money transfers, and payments. They are user-friendly due to their integration across various services, making it convenient for students to access, send, and receive money

Security-E-wallets offer secure payment storage through encryption and authentication methods, reducing fraud risk. Passcode-protected apps with unique pins ensure legitimacy. An authentication process is conducted before app installation, fostering trust and reassurance in users.

Mobility-E-wallets offer convenience and accessibility for people, allowing them to make payments anytime, anywhere with an internet connection. They are particularly beneficial for students, who can make secure transactions quickly and securely. E-wallet apps also transcend physical boundaries, making financial matters less of a concern for those studying abroad or traveling.

Reward and cashback-E-wallets offer rewards, cashback, and loyalty programs, allowing users to accumulate benefits, discounts, or points for their spending. These incentives are particularly beneficial for students, as they can lead to substantial savings and free or discounted purchases. These benefits enhance the overall value of e-wallet app usage, especially for students with limited budgets.

10 DISADVANTAGES OF E-WALLET

- It could encourage reckless spending: When currency is digital rather than tangible, some people find it difficult to control their spending. Appropriate budgeting is impossible since the money in the application doesn't feel real. Using an electronic wallet might worsen your budgetary difficulties if you are already having trouble keeping to them with a traditional wallet.
- No elimination of security risks: Your smartphone or other mobile device's level of security will depend on the settings you select. Hence it may vary according to which feature one uses.
- Device need to be charged: The fact that an electronic wallet requires a fully charged device to operate is another disadvantage. If you carry a traditional wallet, you won't have to worry about the phone's battery.
- It still requires you to carry something: Even though it is said to be seamless and no need to carry anything still there is a need to carry your mobile phone.

Accepting E-Wallet by retailers: Certain retailers may not be set up to take digital payments, so the places where you can use them may be limited. Certain retailers may not be set up to take digital payments, so the places where you can use them may be limited.

11 DATA ANALYSIS & INTERPRETATION:

Table.6 Profile of the respondents

Gender	No. of response	PERCENTAGE
Male	18	14.5%
Female	112	85.5%
Total	130	100%

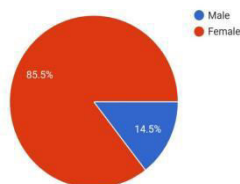


Fig. 1. Profile of the respondents

INTERPRETATION: Out of the total respondents 14.6% are male and 85.4% are female.

Table 7 : Age

Age	Number	Percentage
Below 18	2	1.5%
18-25	109	82%
26-30	6	4.5%
31-40	4	3%
Above 41	11	8.3%

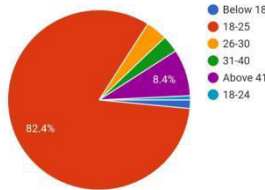


Figure.2. Age

INTERPRETATION: Among the overall respondents 84.1% were between 18-25 and 7.1% were above 41.

Table8. EDUCATIONAL QUALIFICATION/OCCUPATION

Usage	No. of re- sponse	Percentage
Yes	122	93.1%
No	9	6.9%

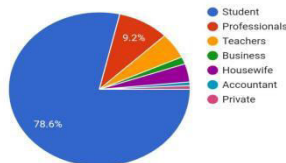


Figure 3. EDUCATIONAL QUALIFICATION/OCCUPATION

INTERPRETATION: Due to the time constraints the study has fully focused on Students and professionals as respondents (i.e): 79.2% students and 9.2% professionals.

Table 9. E-WALLET APPLICATIONS THAT USERS ARE AWARE OF

Applications	No. of response	Percentage
Paytm	71	54.2%
Gpay	121	92.4%
Phonepe	69	52.7%
Mobikwik	17	17%
Amazon pay	51	38.9%
Others	3	2.3%
Paytm	71	54.2%

Figure.3. E-WALLET APPLICATIONS THAT USERS ARE AWARE OF

INTERPRETATION: There are various E-wallet applications in India, this study has also focused on the applications people are aware of which 54.2% are aware of Paytm, 92.4% are Gpay, 54% are Phonepe , 17% are Mobikwik users and 38.9% are Amazon Pay users.

TABLE 10 : USAGE OF SMARTPHONES FOR ONLINE PAYMENT

Usage	No. of response	Percentage
Yes	122	93.1%
No	9	6.9%

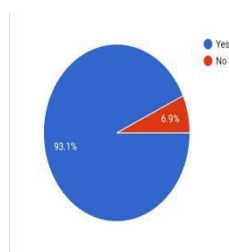


Fig. 4

INTERPRETATION: The above chart represents that 93.1% of the respondents use digital wallets for completing a monetary transaction while 6.9% of the respondents do not use digital wallets.

TABLE 11: E-WALLET APPLICATION -PREFERENCE OF THE USERS:

Applications	No. of response	Percentage
Paytm	11	8.4%
Gpay	106	80.9%
Phonepe	10	8.4%
Amazon Pay	2	1.5%
None	1	0.8%
Total	130	100%

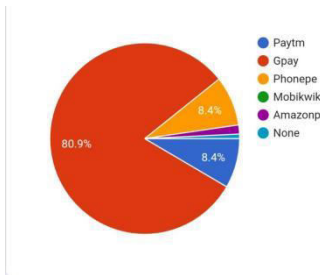


Fig. 5

INTERPRETATION: Hence this study also focuses on which evolved application the users prefer the most, 80.9% of the respondents prefer Google Pay followed by Paytm users 8.4% and 8.4% by phonepe users.

TABLE 12 : FACTORS CONSIDERED AS AN ADVANTAGE IN USING E-WALLET APPLICATION

Advantages	No. of response	Percentage
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Internet connectivity	39	31%
Simple to use	93	71.4%
OTP	42	33.3%
Increased security	36	27.8%
Transaction speed	85	64.3%
Cashback and rewards	44	33.3%
Transaction history	59	45.2%

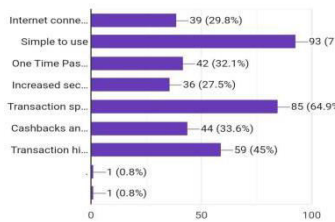


Fig. 6

INTERPRETATION: E-wallet provides various facilities some of which are considered as an advantage, 31% of the respondents have considered internet connectivity as the major advantage of e-wallet and 71.40% of the respondents have considered the advantage as simple to use also 33.3% of the respondents have decided OTP has an advantage and 27.8% of the respondents do prefer the security feature as a major advantage 64.3 percentage of the respondents prefer transaction speed and cashback 33.3 %and transaction history 45.2 %.

TABLE 13 : FACTORS CONSIDERED AS A DISADVANTAGE IN USING E-WALLET APPLICATION

Disadvantages	No. of response	Percentage
Reckless spending	61	46.6%
Not fully available	36	27.5%

Security problems	63	48.1%
Technical glitches	71	54.2%

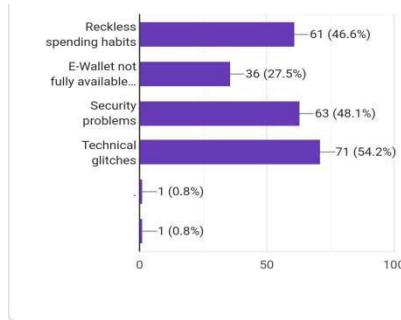


Fig. 7

INTERPRETATION: E-Wallet may have various advantages but still it has its drawbacks so this study also aims to analyze the various drawbacks that have been faced by the users. 46.6% of the respondents have considered reckless spending habits as a major disadvantage 27.5% of the respondents have decided E wallet is not fully available, 48.1% of the respondents have decided as securities problems and 54.2% of the respondents have decided technical glitches as a disadvantage.

TABLE 14: FEATURES IN E-WALLET THAT USERS FIND IMPORTANT:

Features	No. of response	Percentage
Availability	77	58.8%
Ease of use	66	50.4%
Connectivity	58	44.3%
Privacy	72	55%
Reliability	45	34.7%
Security	52	39.5%

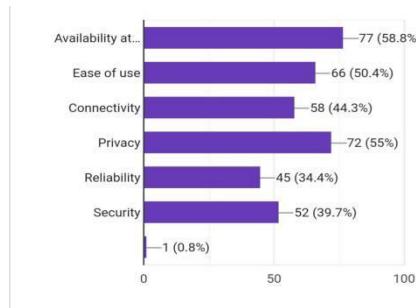


Fig. 8

INTERPRETATION: There are various features provided by the e-wallet among those some features are considered as an important one by the users hence this study has found that 58.8% of the users consider the availability feature as most important, followed by the privacy feature (55%) other 50.4% consider the ease to use feature as important, followed by connectivity features (44.4%) and 35.7% as reliability.

TABLE 15:Major preferences for integrating E-WALLET in various services:

Services	No. Of re- sponse	Percentage
Recharge	85	64.9%
Utility bill pay- ment	62	47.3%
Transportation	49	37.4%
Food or movie tickets	79	60.3%
Online shopping	91	69.5%
Free payment	63	48.1%
Transfer money	82	62.6%
Others	2	2.6%

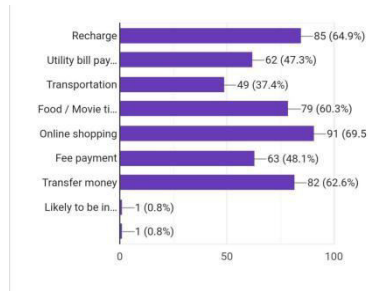


Fig.9

INTERPRETATION: The study also looked at various types of activities the consumers would prefer to use digital-wallet, Majority of the respondents surveyed prefer using digital-wallets for Online shopping purpose (69.5%) followed by Recharge (64.9%). 62.6% of the respondents surveyed prefer using digital-wallets for transferring money respectively. About 60.3% of the respondents surveyed prefer using digital-wallets for food / movie tickets payments and 47.3% for utility bills payment while 37.4% preferred for transportation and 48.1% of the respondents prefer using digital-wallets for Fee payment.

12 FINDINGS

The most popular e-wallet app among responders is Gpay, which is followed by Paytm phone pay, Amazon pay, and MobiKwik. The majority of respondents use smartphones to make transactions online. Gpay is the most popular e-wallet app among respondents, followed by Paytm and Phonepe. A significant portion of respondents cited the E-wallet applications' speedy transactions as a primary benefit, with transaction history tracking, cashbacks and awards, one-time passwords (OTPs), and enhanced security coming in second. The majority of respondents reported experiencing technical glitches with their e-wallet applications, which were followed by security issues and the fact that e-wallets are not available everywhere. One of the most important feature in an evolut according to the respondents is availability followed by the privacy settings, East to use, connectivity, security and reliability.

Majority of the respondents prefer E- wallet to be integrated in various services such as online shopping, recharge ,transfer of money ,food or movie tickets, utility bill payments, fee payment and transportation. Majority of people have used electronic wallet more than thrice in a week. A large number of respondings are satisfied in using the various E-Wallet applications. Major part of the respondents prefer to continue the usage of E-wallet. Hence E-wallet is considered as a sustainable payment method in the upcoming era.

13 SUGGESTIONS

Integration of biometric authentication such as facial recognition or fingerprint scanning for secure access. Implementing advanced encryption techniques to safeguard user data and transaction information. Continued research into blockchain technology for decentralized and tamper-resistant transactions. Development of universal standards to facilitate interoperability between different e-wallet providers, enabling users to seamlessly transact across platforms. Integrating the Augmented reality (AR) and Virtual reality (VR) technologies results in e-wallet user experiences that are immersive and fascinating. Exploration of the potential applications of the Internet of Things (IoT) in e-wallets, allowing for smart and automated transactions. Implementation of secure and standardized digital identity solutions, ensuring a seamless and trusted user experience. Introduction of AI-powered personalization to tailor the e-wallet experience based on individual spending patterns and preferences. Integration of chatbots or virtual assistants within wallet interface to provide real time support and assistance. Implementation of eco-friendly practices in E-Wallet operations, such as utilizing green energy sources for greater centers. Collaboration with educational institutions and government bodies to integrate digital finance literacy programs in curricula. Implementation of offline transaction capabilities to enable the users to make payment in areas with limited or no internet connectivity. Initiative to educate users about the benefits, security measures, and proper usages of E-Wallets to increase adoption rates and to build trust.

14 CONCLUSION

In conclusion, the widespread adoption of e-wallets has ushered in a transformative era in the realm of financial transactions. The impact of e-wallets is multifaceted, revolutionizing the way individuals manage and transfer funds. With the convenience of mobile payments and the seamless integration of financial services into digital platforms, e-wallets have not only enhanced financial inclusion but also fostered a shift towards a cashless society. This transition has resulted in increased efficiency, reduced transaction costs, and improved security. Moreover, e-wallets have played a pivotal role in accelerating economic activities, particularly in emerging markets, by providing accessible and inclusive financial solutions. However, it is crucial to address challenges such as security concerns and interoperability to ensure the sustained success of e-wallets. Overall, the impact of e-wallets is undeniably profound, reshaping the landscape of modern finance and paving the way for a more interconnected and technologically advanced financial future.

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