A Study on Consumer Perceptions of Mobile Payment Wallets: Paytm & Phonepe

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Abstract

A digital payment wallet is an electronic or online service that enables an individual to make digital purchases, including online purchasing on the internet with a computer or using a mobile phone or physical purchasing in a shop. A mobile payment wallet is a digital payment wallet used for transactions through mobile phones.

The mobile payment wallet market has grown very rapidly in recent years, particularly due to the special emphasis placed on financial digitisation by the Government of India since 2014, and in particular the Demonetisation drive in November 2016. India's mobile payment wallets market is estimated to be US$ 191.22 billion in 2022 and is expected to reach US$ 714.92 billion by 2027, growing at a CAGR of 30.18%.

This study is a descriptive study analysing consumer and retailer perceptions towards mobile payment wallets and in particular compares consumer perceptions towards the mobile payment wallets of Paytm and PhonePe. The study is based on data collected from a sample of one hundred consumers and fifty retailers using a structured questionnaire and uses discriminant analysis to identify the factors differentiating Paytm and PhonePe.

Keywords: mobile payment wallets, consumer and retailer perceptions, Paytm, PhonePe, discriminant analysis.

Introduction

A digital payment wallet is an electronic or online service that enables an individual to make digital purchases, including online purchasing on the internet with a computer or using a mobile phone or physical purchasing in a shop. A mobile payment wallet is a digital payment wallet used for transactions through mobile phones. Basically, a mobile payment wallet is a virtual mobile-based wallet application which can be used to make online and offline payments and to send and receive money online to/from friends, family, and/or merchants. Mobile payment wallets offer may advantages, including faster payment processes, 24/7 banking services, rewards and discounts, very economical mode of conducting transactions, maintenance of transaction records, and quick remittance and settlement of bills. The digital platform has made remarkable changes in the way we manage our finances, people prefer contactless and cashless transactions.

The digital wallets also offer lot of secured payment options like, Quick Response (QR), Near Field Communication (NFC) technology, sound wave systems, virtual cards, Unified Payments Interface (UPI), and so on. Smartphones have revolutionised the digital payments process, being an all-in-one device.

The digital wallet market in India has embarked on a growth trajectory on account of the rising adoption of cashless payments due to government initiatives toward a digital economy since 2014, and in particular the Demonetisation drive in November 2016. The Digital India initiative is a flagship program of the Government of India with a vision to transform India into a digitally empowered society. The mobile payments wallet industry has undergone a huge transformation in recent years with the introduction and implementation of the UPI by the National Payments Corporation of India (NPCI). UPI has facilitated many Indian banks and third-party companies to introduce UPI-enabled mobile payment apps allowing people to send and receive money from UPI-linked bank accounts. Digital payment apps are rapidly replacing the traditional way of payment methods such as cheques, credit cards, debit cards, and so on.

The major players in India's digital payments market include: Paytm, Google Pay, BHIM Axis Pay, PhonePe, Mobikwik, Yono (SBI), Citi MasterPass, ICICI Pockets, HDFC PayZapp, Amazon Pay, Samsung Pay, Apple Pay, WhatsApp Pay, and several others. According to Startyuptalky[1], the market leaders in terms of percentage of users include Paytm (~ 80%), Amazon Pay (~ 51%), Google Pay (~ 48%), PhonePe (~ 40%), and Paypal (~ 40%). India's mobile payment wallet market is estimated to be US$ 191.22 billion in 2022 and is expected to reach US$ 714.92 billion by 2027, growing at a CAGR of 30.18%. The fast growth of e-commerce sector throughout the country on account of the changing consumer preferences towards online shopping along with the growing acceptance of payments through mobile payment wallets by the various e-commerce companies is also driving the growth of the mobile payment wallet market. Additionally, the rising adoption of digital payments by retailers throughout the country on account of the Digital India Initiative by the Indian government is also anticipated to push the growth opportunities for the market. The market has grown in both the B2C and B2B spheres during the Covid-19 pandemic, with mobile payment wallets offering incentives such as discounts, cashbacks, rewards, and offers to attract more customers.

Literature Review

There have been several studies examining factors affecting the adoption of mobile payment wallets. The following is a brief review of some Indian studies in this field.

Padashetty and Kishore (2013) found that perceived ease of usage of mobile payments was an important factor in the adoption of mobile payments. They suggested that ease of usage can be further analysed in terms of ease in starting transactions, ease in receiving the transaction details, and ease in registering for the system.

Shetty et al (2014) found that for digital wallets, the transactions were completed more efficiently by having a better user identification, smoother transactions over a large range of vendors, and higher security in transactions, as compared to physical wallets. Overall, they

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[1] https://startuptalky.com/mobile-wallets-india/

observed the benefits of QR code-based mobile payments wallet as being fast, secure, more traceable, and making accounting easier.

Chauhan and Shingari (2017) studied the classification of wallets: open wallets, semi open wallets, closed wallets and semi closed wallets. They observed that convenience in payments is the most important advantage of digital wallets, while security of payments is the most important risk factor in digital payments.

Bagla and Sancheti (2017) studied the factors responsible for the growth of the digital wallets and payments. They found that cashbacks and rewards was the most important factor, followed by ease of use, instant transfer of money, wider acceptability, higher transaction security, and absence of transaction fee.

Vally and Divya (2018) suggested that there was a direct influence of adoption of technology and digital payments and improved banking performance.

Praiseye and John (2018) observed that the Demonetisation drive had contributed to the adoption of digital wallets largely in the urban areas, while its impact in rural areas was much less mainly due to poor financial literacy and poor internet connectivity.

Das and Das (2020) observed that marginalised sections still use debit cards to withdraw money and are comfortable using cash. However, they found that the adoption rate of FinTech services in India was 87%, much higher as compared to the global average of 64%.

George et al (2021) found that there was a significant impact of Covid-19 on the usage of mobile payment wallets, and they suggested that this trend would continue to sustain even in the post-pandemic world.

Muhtasim et al (2022) found six significant factors affecting user satisfaction with digital payments wallets, including transaction speed, authentication, encryption mechanisms, software performance, privacy details, and information provided. Based on these findings they proposed a six-factor security framework for digital wallet user satisfaction.

Methodology

The objective of the study was to understand customers' and retailers' perceptions towards and to compare the services offered by the e-wallets Paytm and PhonePe. The variables considered for the analysis include usability, interface, range of services offered, transaction speed, cashback options, support offered, and failed transaction settlement.

The study conducted was a descriptive study. The data for the study was collected from a sample of one hundred customers and fifty retailers using structured questionnaires, as detailed above. The sampling technique used was convenience sampling. The data from the survey was analysed using descriptive statistics and discriminant analysis.

The study provides insights for payment wallets to improve their services by analysing customers' and retailers' perceptions towards and comparing the services offered by Paytm and PhonePe.

Analysis & Findings from the Customers Survey

It was found that all of the respondents were using payment wallets. The most subscribed payment wallets were Paytm (41%) and PhonePe (35%), followed by others including Google Pay (9%), Zappay (8%), and Bharatpay (7%). The most widely accepted/preferred payment wallet was perceived to be PhonePe (72%) as compared to Paytm (28%).

The comparison between the services of Paytm and PhonePe from the customers' point of view is presented in the table below.

	PAYTM		PHONEPE			
	mean	std dev	mean	std dev	Wilcoxon z	p-value
Transaction speed	1.94	1.179	2.17	1.341	-4.796	0.0000
Usability	2.04	1.348	2.52	1.534	-4.899	0.0000
Range of services offered	2.17	1.341	2.45	1.373	-4.660	0.0000
Support offered	2.17	1.341	2.50	1.202	-4.621	0.0000
Failed transaction settlement time	2.17	1.198	2.50	1.202	-5.745	0.0000
Cashback options	2.31	1.293	3.18	1.690	-7.023	0.0000
Interface	2.32	1.325	2.81	1.594	-6.090	0.0000

The respondents were found to have significantly better perceptions of Paytm's services as compared to PhonePe's services along all of the parameters considered. The most significant difference was for cashback options, while the least significant difference was for support offered. For Paytm, the parameter with highest rating was transaction speed, followed by usability, failed transaction settlement, range of services offered, support offered, cashback options, and interface; while for PhonePe, the parameter with highest rating was transaction speed, followed by range of services offered, support offered, failed transaction settlement, usability, interface, and cashback options.

Further, 24% of respondents reported that they faced problems with Paytm, while 47% of respondents faced problems with PhonePe; and 96% of respondents reported that their problems with Paytm were quickly resolved, while 89% of respondents reported that their problems with PhonePe were quickly resolved.

The results of the discriminant analysis between preference for PhonePe and Paytm are presented in the table below.

	model I	model II	model III	model IV
Cashback options- PHONEPE	-2.438	-	-3.300	-3.233
Usability - PHONEPE	-0.143	-	0.053	-
Interface - PHONEPE	2.043	-	3.312	3.494
Range of services offered - PHONEPE	0.414	-	2.078	1.909
Transaction speed - PHONEPE	1.151	-	-	-

Support offered - PHONEPE		1.569	-	1.458	1.293
Failed transactions settlement time - PHONEPE		-	-	-	-
Cashback options - PAYTM		-	-1.010	-0.584	-
Usability PAYTM		-	0.354	0.026	-
Interface PAYTM		-	-0.429	-3.388	-3.480
Range of services offered - PAYTM		-	2.353	3.881	3.992
Transaction speed - PAYTM		-	0.146	-0.957	-0.956
Support offered - PAYTM		-	-	-	-
Failed transactions settlement time - PAYTM		-	0.329	0.591	-
(Constant)		-5.064	-3.499	-6.373	-6.181
Group Centroids	PHONEPE	-1.967	-1.312	-2.806	-2.758
	PAYTM	5.058	3.373	7.215	7.093
Wilks' Lambda		0.090	0.181	0.046	0.048
p-value		0.000	0.000	0.000	0.000
%age Correctly Classified		100%	100%	100%	100%

The results of model I indicate that greater preference for PhonePe's interface, support, transaction speed, and range of services offered was associated with preference for PhonePe over Paytm, while greater preference for PhonePe's cashback options and usability was associated with preference for Paytm over PhonePe.

The results of model II indicate that greater preference for Paytm's cashback options and interface was associated with preference for Paytm over PhonePe, while greater preference for Paytm's range of services offered, usability, and transaction speed was associated with preference for PhonePe over Paytm.

The results of model III indicate that greater preference for both PhonePe's and Paytm's range of services and usability were associated with preference for PhonePe over Paytm; greater preference for both PhonePe's and Paytm's cashback options were associated with preference for Paytm over PhonePe; greater preference for PhonePe's support offered was associated with preference for PhonePe over Paytm; greater preference for Paytm's transaction speed was associated with preference for Paytm over PhonePe; and greater preference for Paytm's interface relative to PhonePe's interface was associated with preference for Paytm over PhonePe. However,

The results of model IV indicate that the significant associations were as follows: greater preference for both PhonePe's and Paytm's range of services were associated with preference for PhonePe over Paytm; greater preference for PhonePe's cashback options were associated with preference for Paytm over PhonePe; greater preference for PhonePe's support offered was associated with preference for PhonePe over Paytm; greater preference for Paytm's transaction speed was associated with preference for Paytm over PhonePe; and greater preference for Paytm's interface relative to PhonePe's interface was associated with preference for Paytm over PhonePe.

Findings from the Retailers Survey

It was found that all of the respondents were accepting payment wallets. The most subscribed payment wallets were Paytm (42%) and PhonePe (38%), followed by others including GooglePay (10%), Bharatpay (8%), and Zappay (2%). The most widely accepted/preferred payment wallet was perceived to be PhonePe (66%) as compared to Paytm (34%).

The comparison between the services of Paytm and PhonePe from the retailers' point of view is presented in the table below.

	PAYTM		PHONEPE			
	mean	std dev	mean	std dev	Wilcoxon z	p-value
Range of services offered	2.00	1.195	2.14	1.178	-2.333	0.0200
Transaction speed	2.00	1.195	2.54	1.388	-4.669	0.0000
Support offered	2.00	1.195	2.68	1.168	-5.091	0.0000
Interface	2.30	1.165	2.92	1.602	-4.916	0.0000
Failed transaction settlement time	2.30	1.165	2.92	1.602	-4.916	0.0000
QR code	2.38	1.292	3.30	1.681	-5.098	0.0000
Settlement time	2.38	1.292	3.30	1.681	-5.098	0.0000

The respondents were found to have significantly better perceptions of Paytm's services as compared to PhonePe's services along all of the parameters considered. The most significant difference was for QR code and settlement time, while the least significant difference was for range of services offered. For Paytm, the parameters with highest rating were range of services offered, transaction speed, and support offered, followed by interface and failed transaction settlement, and then by QR code and settlement time; while for PhonePe, the parameter with highest rating was support offered, followed by range of services offered, transaction speed, interface, failed transaction settlement time, QR code, and settlement time.

Discussion

The results of the study suggest that, though service quality improvement is desirable for all service providers, specific service aspects may be associated with preference for specific service providers. The results suggest that greater preference for range of services offered and support offered was associated with preference for PhonePe over Paytm, while greater preference for transaction speed and cashback options was associated with preference for Paytm over PhonePe, and greater preference for Paytm's interface relative to PhonePe's interface was associated with preference for Paytm over PhonePe (and vice versa).

Thus, service providers should understand their customers' perceptual mapping of their service offerings and improve specific aspects of service delivery. Thus, the results suggest that PhonePe should prioritise improving their service quality by offering a wider range of services, offering more customer support, and improving their customer interface, while Paytm should prioritise improving their service quality by reducing transaction time, offering more lucrative discounts and cashback options, and improving their customer interface.

There were several limitations inherent in the study. The sample size was limited, so that the results may not be representative. There was also a possibility of response inaccuracy/inconsistency/bias. The study should be conducted on larger scale to improve the generalisability of the results. The study should be further expanded to consider other payment wallets and a wider set of service parameters to generate a proper perceptual mapping of payment wallet services.

References

Bagla, R.K. and Sancheti, V. (2017), "Gaps in customer satisfaction with digital wallets: challenge for sustainability," Journal of Management Development 37(6), 442-451.

Chauhan, M. and Shingari, I. (2017), "Future of e-Wallets: A Perspective from Under Graduates," International Journal of Advanced Research in Computer Science and Software Engineering 7(8), 146-150.

Das, A. and Das, D. (2020), "Perception, Adoption, and Pattern of Usage of FinTech Services by Bank Customers: Evidence from Hojai District of Assam," Emerging Economy Studies 6(1), 7–22.

George, A., Sonawane, C., and Mishra, D. (2021), "A study on the usage and relevance of mobile wallets in India in COVID-19 pandemic," Indian Journal of Commerce & Management Studies 12(3), 1-12.

Muhtasim, D.A., Tan, S.Y., Hassan, M.A., Pavel, M.I., and Susmit, S. (2022), "Customer Satisfaction with Digital Wallet Services: An Analysis of Security Factors," International Journal of Advanced Computer Science and Applications 13(1), 195-206.

Padashetty, D.S. and Kishore, K.S. (2013) "An empirical study on consumer adoption of mobile payments in Bangalore city - A Case Study" Researchers World, 4(1), 83 - 94.

Praiseye, T. and John, F. (2018), "A Study on Consumer Preference towards Mobile Wallet," International Journal of Research and Analytical Reviews 5(3), 185-189.

Shetty, S., Shetty, T., and Amale, R. (2014), "QR-Code based Mobile Wallet," International Journal of Advanced Research in Computer Science 5(7), 105-109.

Vally, K.S. and Divya, K.H. (2018), "A study on Digital payments in India with perspective of consumers adoption," International Journal of Pure and Applied Mathematics 118(24),

Appendix

The customer questionnaire was structured as follows:

Q1.   Are you using payment wallets? Y/N

Q2.   Which of the following payment wallets you are currently using?

PhonePe/Paytm/Google Pay/BharatPay/Zappay

Q3.   Which payment wallet is more widely accepted? PhonePe/Paytm

Q4.   How do you rate the cashback options? Paytm ____, PhonePe ____

Q5.   How do you rate in terms of their usability? Paytm ___, PhonePe ___

Q6.   How do you rate in terms of interface? Paytm ___, PhonePe ___

Q7.   How do you rate the services offered? Paytm ___, PhonePe ___

Q8.   How do you rate the transaction speed? Paytm ___, PhonePe ___

Q9.   How do you rate the support offered? Paytm ___, PhonePe ___

Q10.   Have you ever faced problem while doing transaction in Paytm/PhonePe? Y/N

Q11.   Are problems are quickly resolved in Paytm/Phone Pe? Y/N

Q12.   How do you rate the failed transactions settlement time? Paytm ___, PhonePe ___

The retailer questionnaire was structured as follows:

Q1.   Are you accepting wallet payments? Y/N

Q2.   Which payment wallets do your customers prefer to use?

        PhonePe/Paytm/Google Pay/BharatPay/Zappay

Q3.   Which Payment Wallet is more widely accepted by retailers? PhonePe/Paytm

Q4.   How do you rate the settlement time? Paytm ___, PhonePe ___

Q5.   How do you rate in terms of interface? Paytm ___, PhonePe ___

Q6.   How do you rate the services offered? Paytm ___, PhonePe ___

Q7.   How do you rate the transaction speed? Paytm ___, PhonePe ___

Q8.   How do you rate the support offered? Paytm ___, PhonePe ___

Q9.   Do Paytm/ PhonePe provide promotional material to the retailers? Y/N

Q10.   How do you rate the failed transactions settlement time? Paytm ___, PhonePe ___

Q11.   How do you rate the QR code? Paytm ___, PhonePe ___

Q12.   Do your customer frequently face problems in Paytm/PhonePe? Y/N