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A Study of the Factors Affecting Willingness of Indian Customers to Use Mobile Wallets for mPayment

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Abstract: *Objective:* The study seeks to investigate the crucial factors which impact Indian Customers Willingness to use Mobile Wallets (mWallets) for Mobile Payment (mPayment). *Research methodology:* Primary data was collected by means of both online as well as offline survey. A structured questionnaire was administered to 200 smart phone users who also use mobile wallet for online payment. Out of 200 people 159 responses were received. Data was analysed using statistical techniques such as factor and regression analysis. *Findings:* The conceptual model was tested using statistical analysis which showcased that Technology factor, Security & Privacy factor, Pricing factor and Situational factors significantly impact willingness of customers to use mobile wallets. *Originality and Implications of the research:* This paper assumes importance as India is moving towards a cashless economy as encouraged by the Government. The conceptual model proposed in the paper will be useful to telecommunication companies who have mobile wallets, the application service providers as well as the Government to understand the factors which they need to consider for motivating consumers to adopt mobile wallets thus helping them meet the vision of making India a cashless economy.

Keywords: Mobile wallets, Cashless economy, mPayments, Regression analysis, Factor analysis.

1. INTRODUCTION

India is fast moving towards a cashless economy and has recently seen an increase in the number of electronic transactions that has now specifically been concentrated to Mobile Phones. As per the report by Omidyar Network, mobile phone penetration in India is currently 65 to 75% and is forecasted to reach 85 to 90% by the year 2020 (Live Mint May 2017). Hence the current environment necessitates understanding and appreciating concepts such as cashless economies, their value to the society and the influence of mobile money transactions on the Indian Economy. An economy in which payments are done through cards or any electronic media is termed as a cashless economy. Cashless transactions provide many benefits

such as transparency in operations, increase in speed, convenience and efficiency of transactions, curbing corruption which in result enhances economic growth, tax evasion etc.

Various modes of electronic payments can be used for cashless transactions such as debit cards/ credit cards, online payment using Internet/mobile, financial service kiosks, and mobile wallets. According to RBI reports, the number of transactions through mobile wallets for daily transactions has seen an exponential increase in the last couple of years. Despite the rising numbers in the digital transactions, it has been observed that majority of the transactions take place through plastic cards such as credit cards, debit cards etc. As per RBI data, in January 2017, the total transaction with debit cards is Rs. 49,000 crore approximately and the total transaction with credit cards is Rs 32,700 crore approximately whereas the total transaction with mobile wallets is Rs. 8353 crore approximately. (Gopal Karmakar April 2017) So, mobile wallets transaction is nearly 10% of plastic cards transactions.

Though digital transactions are on the rise, mobile wallet adoption is still in the early adoption phase of the technology product life cycle. As a result there is a dearth in literature regarding the purchase behaviour of customer with respect to usage of mWallets. Hence, this paper seeks to investigate the crucial factors which impact Indian Customers Willingness to use Mobile Wallets (mWallets) for Mobile Payment (mPayment).

2. LITERATURE REVIEW

2.1. Mobile wallets

“Mobile wallet is a type of payment service through which businesses and individuals can receive and send money via mobile devices. It is a form of e-commerce model that is designed to be used with mobile devices due to their convenience and easy access. A mobile wallet is also known as mobile money or a mobile money transfer” (Technopedia Dictionary 2017). For instance, if a person goes to a coffee shop, which is listed with his/her service provider’s mobile wallet, then that person can pay for the coffee through the phone. Depending on the service provider, he/she can also pay through mobile application, text message, social media account or website. There are 4 types of mobile wallets in India. They are:

Open wallets: Open wallets are those which allow the customer to buy products and services, withdraw money from banks and ATMs and also aid money transfer. These services are launched in collaboration banks, for example, M-Pesa by Vodafone and ICICI. It also allows users to send money to any mobile number bank account.

Semi-open wallet: Semi wallets (for example Airtel Money) are those which allow the customers to transact with all those traders who have a signed an agreement/contract with the service provider (for example Airtel). Users cannot withdraw cash or get it back. They must spend what they have loaded.

Closed wallets: Closed wallets are wallets in which a specific amount of money is locked with merchant. In case the order placed with the merchant has been cancelled, then the money is returned in the wallet of that company. These wallets are very popular in e-commerce sector.

Semi-closed wallets: Semi closed wallets are those wallets which cash withdrawal or redemption are not permitted. It only allows you to buy products and services at listed stores, both online and offline, and perform financial services. The best example of this type of wallet is PayTm.

Mobile Wallets are essentially one of the building blocks to creating a cashless economy.

2.2. Factors Impacting willingness to buy mobile wallets

India is fast moving towards a cashless economy. Recent initiatives of the Indian Government such as demonetization, digital India movement, introduction of payment banks etc. are all efforts towards making India a cashless economy. Even the Reserve Bank of India has been supportive of these initiatives taken by the Government. It has recently released a document - "Payments and Settlement Systems in India: Vision 2018" –with a plan to encourage electronic payments and to help India become a cashless Economy with a long term view. Cashless transactions give rise to a lot of advantages. Even though there is availability of card, mobile interfaces & robust e-payment platforms, however, merchants do not indulge into such transactions, due to potential tax implications and also due to the payment of nominal charges to banks towards using the payment infrastructure. In turn, customers are encouraged to pay in cash. Consumers find cash transactions are simple and familiar, can be conveniently withdrawn anytime from ATMs and are also untraceable, satisfying consumers demand for privacy [Michel Andrieu, (2001)]. Some customers in order to safeguard their privacy, like to make some of their purchases by utilizing cash so that no record or trail is available for the same (Brown, 1997). Cost is an important hurdle in acceptance of new electronic payment instruments. The cost incurred in installation will be passed onto the customers as transaction fees leading to reduction in customer migration to E-Systems [Michel Andrieu, (2001)]. Citizens have a feeling that since all money transactions are exposed to the Government, their power over the society is enhanced as they become privy to the confidential information of the people (Olalekan S. Akinola, 2012). Security is of prime importance when customers look at any alternative form of payment to cash especially the authentication issue (password or digital signature) is of major concern (Olalekan S. Akinola, 2012). As the global reliance on digital currency grows, banks will be required to assess their existing technology and may have to even augment the same in order to reduce the number of discrepancies, increase productivity and increase transparency (Olalekan S. Akinola, 2012).

For the purpose of this study, it was essential to classify the factors which impact the willingness of customers to use mobile wallet for mpayment. 16 parameters were identified from literature review and after factor analysis 15 parameters were clubbed into 4 major factors (one parameter had a low factor score hence was not considered). A detailed description of these factors namely Functional, Security & Privacy, Pricing and Situational factors is explained below.

2.2.1. Functional Factor

Consumers always look for functional value whenever they buy any application or service. If the service, product or application provides functional advantages then customers will be more amenable towards buying such services. Based on literature review 5 variables have been considered under the functional factor for the purpose of this study viz. availability, accessibility/convenience, ease of usage, internet connectivity and paperless transaction. Following studies have stressed on functional parameters contributing to the acceptance of consumers towards adopting mobile payment system.

a) Availability: K. Pousttchi (2003), S.G. Dewan and L.D Chen (2005), L.-D. Chen (2006), T. Dahlberg (2006), and Viehland and Leong (2007), have considered functional parameters like *Availability/ Accessibility/ Convenience* in their studies related to mobile payment usage and adoption.

b) Accessibility/Mobility: Zmijewska et al. (2004), in their study have considered mobility, perceived trust, perceived expressiveness as affecting adoption of mobile payment services. Leif Erik Kleivene (2016)

in his study on adoption of P2P payments has mentioned that Mobility is one of the key factors affecting adoption of P2P payments.

c) *Ease of usage*: H. van der Heijden (2002); T. Dahlberg, N. Mallat, A. Öörni (2003); M. Kleijnen, M. Wetzel, K. de Ruyter (2004); A. Zmijewska, E. Lawrence, R. Steele (2004); J.J. Chen, C. Adams (2005); L.-D. Chen (2006), S.G. Dewan, L.-D. Chen (2005); N. Mallat (2006), have considered *Ease of use* in their studies as one of the parameters affecting acceptance of mobile payments and mobile payment solutions.

H. van der Heijden, (2002) have stressed on the variables perceived ease of use, perceived usefulness, perceived costs affecting adoption of mobile payment services. (Kim et al., 2010) conducted a study in Korea on factors affecting adoption of mobile payment services and the study reveals perceived usefulness and perceived ease of use as the most effective factors. Davis (1989) found that perceived ease of use affects adoption of mobile payment services. The same hypotheses has also been seconded by studies conducted by Gefen and Straub, 2000; Venkatesh, 2000). Studies done by (Davis, 1989; Gefen et al., 2003; Deveraj et al., 2003) have also showcased that when ease of use of mobile payment increases the intention to use those services also increases. Childers et al., (2002); Szymanski and Hise, (2000) in their study on mobile payment service adoption have stressed that when individuals find any technology system easy to learn and manage has a strong effect on intention to use that system.

d) *Internet connectivity*: Internet connectivity parameter has been considered in various studies as affecting mobile payment adoption, acceptance and usage. It has been considered in the form of Network externalities [N. Mallat (2006)], in the form of Speed of transaction [L.-D. Chen, S.G. Dewan (2005), L.-D. Chen (2006); T. Dahlberg (2006)] and in the form of Technology anxiety [C.-P. Lee, M. Warkentin, H. Choi, 2004].

e) *Paperless transaction*: *Paperless transaction* was a new parameter introduced in our study taking into consideration the Green environment and sustainability measures being encouraged for environmental consciousness. According to report by ASSOCHAM (2017) on Mwallet scenario post demonetization it has been observed that majority of the transactions in the upcoming ten years will be paperless and mwallets are the fastest mode of paperless payment transactions. As per a study conducted by Business Insider in 2015, it was observed that millennials are preferring a paperless future where all money transactions will be paperless and in digital form. Kunal Taheam et al (2016), in their study have considered paperless transaction as one of the parameters that influences digital wallet usage.

So the Functional factor is a combination of the above mentioned 5 parameters.

2.2.2. Security & privacy Factor

This factor pertains to the parameters of privacy and security concerns of a customer such as customer privacy, security of transactions, UPI integration to allow cash outs and integration with bank accounts.

a) Customer privacy and b) Security of transactions: Smith, Milberg and Burke (1996) in their study have stressed that customers are concerned about privacy parameters such as personal information, unauthorised access, database related errors etc. L.-D. Chen (2006), considered security and privacy concerns as affecting intention to use mpayments. Studies conducted by [S.G. Dewan, L.-D. Chen (2005)], showcase that US consumers are concerned about privacy and security parameters during transactions related to mpayments. Suh, B., Han, I. (2003) in their study have stressed that privacy protection, data integrity and

security have positive impact on trust of customer towards acceptance of ecommerce. Linck, K.; Pousttchi, K.; Wiedemann, D. G (2006) have examined security issues in mobile payment procedures as a major factor concerning customers. Security and privacy factors were also considered in the study conducted with respect to adoption of mobile payment systems by (Shon and Swatman 1997; Jayawardhena and Foley 1998; Bohle, Krueger et al. 2000; Turban, King et al. 2002).

c) UPI integration to allow cash outs and integration with bank accounts: As per the study by Sharma Aarti (2016), “Unified Payment Interface will fundamentally change the way digitized payments are effected, wherein the user’s personal mobile phone or a tablet will become the primary device for all payments”. As per the report by Axis Capital (June 2016), launch of UPI will help to influence adoption of smartphones and also perform push and pull transactions effectively with respect to payments. As per the report by NPCI (February 2015) the objective of UPI is provide a set of standards for next generation online payments so as to influence adoption of smartphones and more access to internet and data consumption for payment purposes as well as simplify interface for Indian languages which will make it easier for adoption.

2.2.3. Pricing Factor

Consumers are always very price-sensitive and would like to accept those payment options which give them best value in terms of pricing. For this research we have considered the following parameters for pricing such as such as Price (Low Service and Transaction Fee), Merchant Integrations (vendors accepting your payments through wallets), and Discounts, offers, cashbacks, Reimbursement and customer assistance.

a) Price (Low Service and Transaction Fee): As per the survey report of the MobiCom Consortium (2001), pricing is one of the major factors considered by customers while buying mobile services. According to the study conducted by N. Mallat (2006) customers refrained from using mobile payment options as a result of premium pricing. As per [Fenech (2002) ;(Shon and Swatman (1997); Jayawardhena and Foley (1998); Turban, King et al. (2002); H. van der Heijden (2002)] transaction fee or payment transaction also affects the adoption of mpayment if the cost gets transferred to customers. Amberg et al. (2003) have raised perceived cost as a major concern for mpayment usage which involves costs such as transaction fee and other nonmonetary costs as well.

b) Merchant Integrations (vendors accepting your payments through wallets): According to Siau et al. (2004), lack of trust in vendor payment systems affects the adoption of mpayment. In the report by Forrester (2017), they have recommended that in order to have sustained growth in digital payments, merchants need to focus on integration of security, acceptance, features and digital customer experiences. Daniel Kornitzer (2017), in his article on mwallets has stated that for the better functioning of Digital wallets, the systems need to be compatible, hence in order to increase the adoption of the digital wallets, a successful integration across various processors, merchant and customer hardware and software is required. According to article by Vipin Tyagi (22nd Feb 2017), better deals and offers affect rate of mobile adoption.

c) Discounts, offers, cashbacks: Teena Wadhwa et al (2017) in their study on mwallet adoption have stated that 20 % of the customers surveyed by them tended to use mwallets as they saw benefits of discounts. Hem Shweta (2016) has stated in her research on adoption of digital wallets that discount offers and reward points can encourage the adoption and use of digital payments. According to article by Vipin Tyagi (Feb 2017), better deals and offers affect rate of mobile adoption.

d) Reimbursement and customer assistance: In the article on mobile wallets Michelle Saettler (2017) has stated that in order to differentiate themselves in the digital payment space merchants are trying to offer rewards or points to lure customers and also creating customer value and customer experiences. Martin Christl (2017) has specified in his article on Mobile wallets that consumers who are served with more features, assistance, reward points are likely to be more loyal towards mobile wallet merchants and usage of mwallets.

2.2.4. Situational factors

Situational factors have been known to affect adoption of mpayment. For this research we have considered parameters such as social influence (through brand loyalty, advertising and promotions), demonetization, mobile penetration, awareness on functionality and usability of wallets.

a) Social influence (through brand loyalty, advertising and promotions): As per T. Dahlberg, A. Öörni (2006), social norm, compatibility based on skills, trustworthiness, and ease of use affect mpayment adoption. As per Dabholkar, P. A. and Bagozzi, R. P. (2002), M. Kleijnen, M. Wetzel, K. de Ruyter (2004), situational factors and social influence has an impact on usage of mobile services. As far as studies on ecommerce and email are concerned [Karahanna, E. and Limayem, M. (2000); Fang, K. (1998)], it was observed that social influence has a major impact on adoption of newer technologies. Lee, Cheon-Pyo; et al (2004), have studied the role of technology and social factors on adoption of mobile payment technologies. Chaudhuri and Holbrook (2001), in their study mention that Brand loyalty helps build commitment of customer towards a specific brand and helps repeat purchase of the same in future. Morrison and Crane (2007) have specified that brand experiences help create brand loyalty, ensure active referral and lead to greater profitability of the brand. In the context of mobile payments, creation of brand loyalty and positive brand experiences may lead to more engagement with online payment adoption.

b) Demonetization: Teena Wadhwa et al (2017) in their study have stated that there has been an increase in customer use of M-Wallet services post demonetization in India and that cash crunch during demonetization was one of the prime reasons for customers to use mwallets. Article by Technavio (November 2016), has stated that demonetization has led to an increased usage of mobile wallets in India.

c) Mobile penetration: Assocham India Report (2017) has mentioned that one of the major driving factors of Indian m-wallet market is the incline in the usage of mobile internet. According to the article by Vipin Tyagi (Feb 2017), growth of mobile wallet users has been encouraged by the growth in smartphone penetration and mobile internet users.

3. RESEARCH MODEL AND HYPOTHESES FORMULATION

Based on literature review 4 major factors have been identified which impact the willingness of Indian customers to use mobile wallets for mpayment. A combination of these 4 factors has been considered for hypotheses formulation in this study. Based on this the following conceptual model (see Fig 1) has been developed and tested in this research.

H1: Functional factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.

H2: Security & Privacy factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.

- H3: Pricing has a significant impact on the willingness of customers to use mobile wallet for mpayment.
 H4: Situational factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.

4. RESEARCH METHODOLOGY

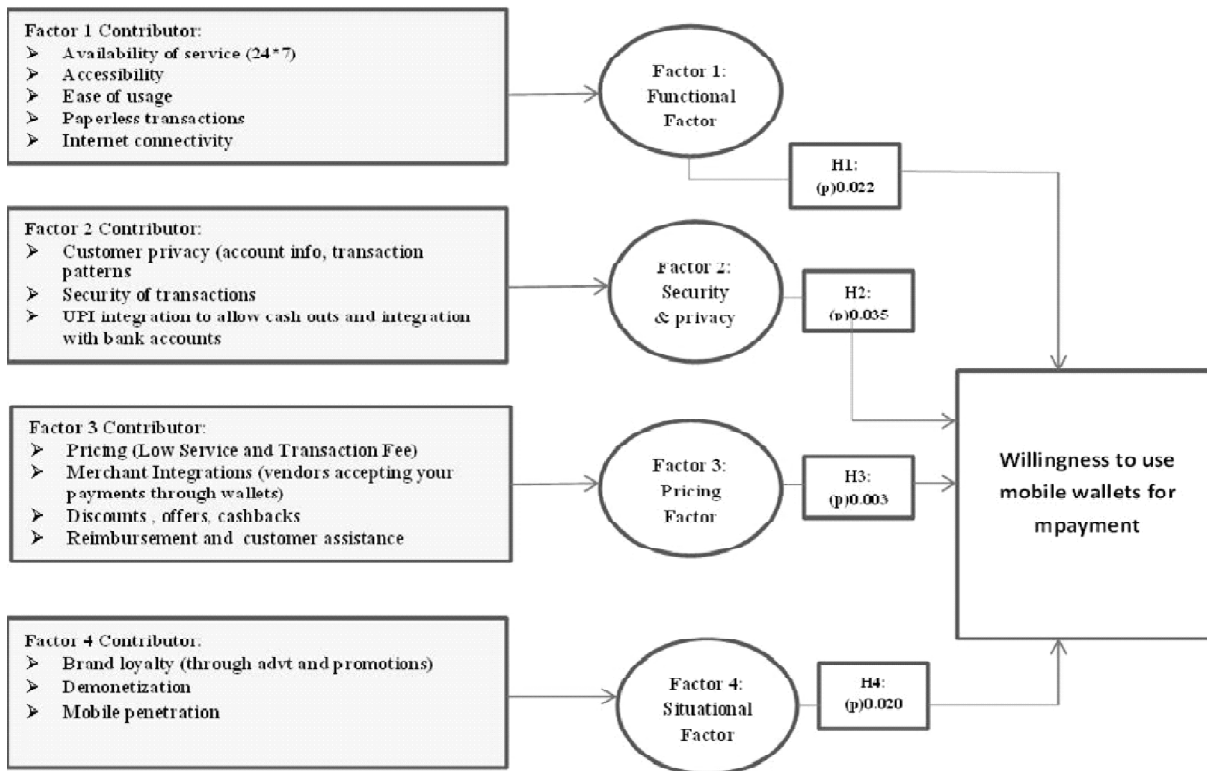


Figure 1: Conceptual model for factors affecting willingness to use mobile wallets for mpayment

The main objective of the study was to identify the influential factors that will impact the willingness of customers to use mobile wallet for mPayments in India. To fulfil this objective, primary data collection method was used. A structured questionnaire was sent out to 200 potential respondents, out of which a total of 159 responses were received. Factor Analysis has been used to group the factors identified through literature review, along with their relevant weightages. Regression analysis was used to understand if a significant relationship existed between the 4 identified factors on the willingness of customer to use mobile wallets for mpayment.

5. DATA ANALYSIS, RESULTS AND DISCUSSIONS

5.1. Respondent profile

Responses were received from men as well as women and a few members from other category as well. Majority of the respondents were youth in the age group of 19 years to 30 years. Figure 2 and 3 below capture the profile of the respondents.

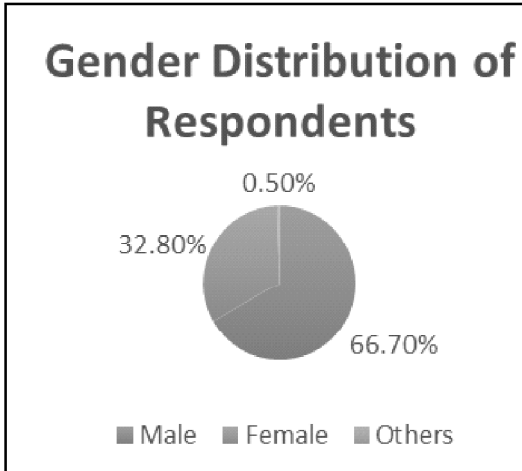


Figure 2: Gender Distribution of Respondents

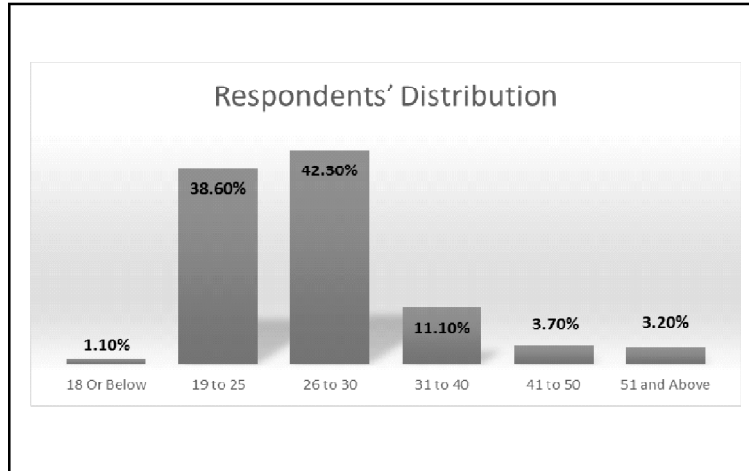


Figure 3: Age – Wise Distribution of Respondents

5.1.2. Reliability and Factor Analysis

“Cronbach’s alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is a measure of scale reliability”. (Cronbach 1951). The value of Cronbach’s alpha for good results should be greater than .700. In this study, we have achieved .844 as the Cronbach’s alpha values which showcases high level of reliability (more than 0.7) for all 4 constructs. (See Table 1).

Table 1
Scale Reliability using Cronbach Alpha
Scale: All Variables
Case Processing Summary

		N	%
Cases	Valid	159	100.0
	Excluded ^a	0	0
	Total	159	100.0

^aListwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.844	16

5.1.3. Factor Analysis and explanation of the output

Factor analysis was used to identify the major factors influencing customer willingness to use mwallets for mpayment in India. All the parameters with factor score more than 0.5 were considered for clubbing under the various factors. Based on factor analysis 15 parameters were considered relevant and grouped under 4 factors which had a cumulative variance of 63.94%. The result of component matrix shows four major factors grouping the 16 underlying variables identified by literature survey.

Table 2
Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.319	39.495	39.495	6.319	39.495	39.495
2	1.643	10.270	49.765	1.643	10.270	49.765
3	1.266	7.911	57.676	1.266	7.911	57.676
4	1.003	6.267	63.943	1.003	6.267	63.943
5	.925	5.783	69.726			
6	.848	5.299	75.026			
7	.732	4.575	79.600			
8	.639	3.991	83.592			
9	.532	3.324	86.915			
10	.468	2.925	89.840			
11	.421	2.633	92.474			
12	.335	2.091	94.565			
13	.261	1.629	96.194			
14	.258	1.614	97.809			
15	.197	1.229	99.038			
16	.154	.962	100.000			

Table 3
Rotated Component Matrix

Rotated Component Matrix^a

	Component			
	1	2	3	4
Availability of Service - (24*365)	.852	.189	.155	
Accessibility - Anywhere/Anytime	.744	.250	.331	.166
Ease of Usage	.736	.329	.250	
Paperless Transactions	.617		.246	.410
Internet Connectivity	.609	.498		
Customer Privacy - Account Information, Transaction Patterns	.211	.812	.140	
Security of Transactions	.502	.740		
UPI Integration to allow Cash-outs and Integration with Bank Accounts		.678	.255	.374
Pricing (Low Service and Transaction Fee)		.158	.778	
Merchant Integration - Vendors accepting your payments through Wallets	.246	.279	.687	
Discounts, Offers and Cashback	.311	-.173	.602	.272
Reimbursement and Customer Assistance	.445		.483	.136
Awareness on Functionality and Usability of Wallets	.346	.239	.380	.285
Brand Loyalty - Advertisements and Promotions		.103		.797
DEMONETIZATION			.162	.783
Mobile Penetration	.381	.202	.139	.599

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 8 iterations.

5.1.4. Hypotheses Testing Using Regression analysis

After factor analysis, regression analysis was conducted on the 4 factors in order to prove the hypotheses. Results of the Regression analysis are explained below.

Table 4 shows that the difference between R square and adjusted square is less than 10% indicating a good model. Table 5 shows that the F is significant thus explaining that variance explained is more than unexplained variances. From the table 6 we can see that the factor 1,2 3 and 4 namely Functional factor, Security & Privacy factor, Pricing and the willingness, Situational factors show a significance (p) value of less than 0.05 thus signifying a 95% confidence in the estimated relationship of the 4 factors on the dependent variable i.e. willingness to use mwallets for mpayment. Moreover the positive beta values also show that the factors positively impact the dependent variable. So the hypotheses 1, 2, 3 and 4 are accepted.

- H1: Functional factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.
- H2: Security & Privacy factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.
- H3: Pricing and the willingness of customers has a significant impact on the willingness of customers to use mobile wallet for mpayment.
- H4: Situational factor has a significant impact on the willingness of customers to use mobile wallet for mpayment.

Table 4
Model Summary
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.369 ^a	.136	.114	.885

- a) Predictors (Constant). REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1. REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1
- b) Dependent Variable: If the above factors are provided, will you be willing to adopt Mobile Wallets?

Table 5
Anova Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1.	Regression	19.011	4	4.753	6.066	.000 ^b
	Residual	120.650	154	.783		
	Total	139.660	158			

- a) Dependent Variable: If the above factors are provided, will you be willing to adopt Mobile Wallets?
- b) Predictors: (Constant), REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1. REGR factor score 1 for analysis 1

Table 6
Table of Coefficients
Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>		
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>
1. (Constant)	4.340	.070		61.823	.000
REGR factor score 1 for analysis 1	.163	.070	.174	2.321	.022
REGR factor score 2 for analysis 1	.150	.070	.159	2.127	.035
REGR factor score 3 for analysis 1	.209	.070	.222	2.970	.003
REGR factor score 4 for analysis 1	.166	.070	.176	2.353	.020

6. MANAGERIAL IMPLICATIONS

India is fast moving towards a cashless economy and has recently seen an increase in the number of electronic transactions that has now specifically been concentrated to Mobile Phones. This study deals around the major factors affecting willingness to use mobile wallets for mpayment. The study reveals 4 major factors (involving 15 parameters) which affect consumer's willingness to use mobile wallets for mpayment namely functional factors, Security & Privacy Factor, Pricing Factor and Situational factor.

So this study will prove to be useful to Telecom service providers has a mobile wallet as part of its product portfolio. By making use of the 4 factors mentioned in the study, managers of Telecom companies can be involved in devising mobile wallet and payment solutions. This value adds to their services, and can differentiate them from their competitors. This would definitely help in improving customer loyalty, potentially increase the average revenue per user, and move toward creating a self-sufficient ecosystem.

Secondly the above mentioned factors and the involved parameters specified in this study will be useful input to the Banks to adapt their services accordingly to meet the changing needs of their customers since most major banks in the Indian market are already either buying into or developing mobile wallets for their customers.

Thirdly the study can be useful to Independent wallet manufacturers such as PayTm who can devise the wallets based on the requirements of the customers as has been revealed through this study.

7. LIMITATIONS OF THE RESEARCH AND SCOPE OF FUTURE RESEARCH

The scope of this research is focussed on B2C and C2C perspective so future research could focus on B2B perspective as they may need the mobile payment services as well. As we are moving towards a cashless economy many players are launching Payment banks so future research could concentrate in the area of Payment banks, such as the driving factors or limitations of Payment banks. Although the sample size for this research was adequate, the online survey method gave rise to the limitation of controlling who responds

to the survey which may give rise to an inherent bias as people with specific background and characteristics are likely to respond. Thus future studies can be replicated in other markets and regions as well. This area is an upcoming area and more literature is coming up on the topic. In this study we have considered 4 factors consisting of 15 parameters so the model may suffer from non-inclusion of some new, upcoming factors. So future research can be conducted considering any such new or remaining parameters. Lastly an interesting study could be on acceptance of Mobile wallets by Businesses/merchants instead of customers.

8. CONCLUSION

This study was undertaken to primarily investigate the factors which impact the Indian customer's willingness to use mobile wallets for mPayment. Literature review was undertaken to identify the parameters which influence willingness to use mWallets. Out of the sixteen parameters which were identified one parameter was rejected from analysis as it had low factor score. The fifteen parameters were clubbed into 4 factors using factor analysis. Regression analysis was further applied on these factors for hypotheses testing.

Table 7
Results of Hypotheses Testing

	<i>Hypotheses</i>	<i>Sig (p) Value</i>	<i>Result</i>
H1	Functional factor has a significant impact on the willingness of customers to use mWallets for mPayment.	0.022	Accepted
H2	Security and Privacy Factor has a significant impact on the willingness of customers to use mWallets for mPayment.	0.035	Accepted
H3	Pricing Factor has a significant impact on the willingness of customers to use mWallets for mPayment.	0.003	Accepted
H4	Situational Factor has a significant impact on the willingness of customers to use mWallets for mPayment.	0.020	Accepted

The study reveals that the 4 major factors namely Functional Factors, Security and Privacy Factor, Pricing Factor and Situational Factors have a significant impact on the willingness of customers to use mWallets for mPayments. Digital wallets are increasingly going to become the mode of monetary transactions in future since customers are using them for online payment as they find this payment option convenient and easy to use. As a result technology savvy customers are demanding seamless, omni-channel retail experiences and looking out for solutions which can deliver such experiences. Hence the following strategies are recommended to the providers of digital wallets.

Integration with UPI and implementation of Payment Banks allowing interoperability with banks will further improve the value proposition of mobile wallets. Awareness needs to be created amongst the nonusers through advertising and marketing communication programs. Discount offers, reward points, easy reimbursements and customer can increase the popularity and adoption of mobile wallets. Security and privacy concerns of the customers need to be addressed so that customers do not fear using digital wallets for monetary transactions. Lastly internet connectivity also needs to be enhanced so that transactions can take place smoothly. If the providers of digital wallets ensure the above factors, there will be a wide scale adoption of mobile wallets in India in the near future.

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