



## Adoption of M- Wallet: A way Ahead

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### ABSTRACT

Demonetization in India has given a boost to digital payments and has encouraged people to go cashless. The government of India in tandem with RBI has been setting out plans to encourage electronic payments that enable India to move towards cashless economy, with the aim to curb the flow of black money and circulation of counterfeit currency. With the advent of technology, consumers have enormous options of making payments through debit cards, credit cards and internet banking, which facilitates the payment for the transactions more convenient and accessible. With the increased penetration of smart phones usage amongst Indians, mobile payments is gaining grounds in India. Besides being used to access internet, people use smart phones to store receipts, business cards and bills. But of late smart phones function as leather wallets, commonly known as "mobile wallet" or M-Wallet. M-Wallet services help the smart phones users to transfer money from bank to m-wallet and use that money to pay for services such as shopping, tickets, recharging and bill payments. M-Wallet not only offers convenience and security but also offers affordability over other modes of payment especially when transferring of money is involved. India is witnessing growth of M-wallet service providers like Paytm, Mobikwik, Vodafone m-pesa and others. The purpose of this study is to analyze and find out the status of adoption of M-wallet services and to find out the gender and age based variance in adoption of M-wallet modes of cashless payments/transactions. The findings of this study suggest that adoption of M-wallet has increased due to three main factors convenience, ease of use, compulsion after demonetization. It has been found that there is gender and age based variance in the adoption of M-wallet.

**Keywords---** Demonetization, Cashless, Electronic payments, Mobile- wallet

### I. INTRODUCTION

Demonetization, a radical monetary step, announced by PM Modi, has been one of the major economic events of our country. Through this step government wants to eradicate counterfeited money,

eliminate black money, stop money laundering to terrorist activities and promote a cashless economy. Country has moved towards the cashless economy after demonetization. Cashless economy is the one where circulation of physical currency is minimal and all the transactions are done using cards or digital means. There are many alternatives to go cashless like debit/credit cards, M-wallets, online payments. An increased use of credit cards/debit cards, online payments would enable to record all the transactions allowing more transparency. It will reduce instances of tax avoidance. Even the government has come up with lots of discounts on digital transactions to incentivize the move towards a cashless economy. It will boost e-banking as no physical infrastructure will be required.

### II. M-WALLET

The mobile **wallet**, which is also called M wallet, is the new age digital cash. It is a digital technology to pay your bills online as well as offline without having to pay by cash or use your credit or debit card every time. In fact M-Wallet is the new buzz word these days. They are like pre-paid cards which can be used for transactions without sharing our bank details. They are incredibly convenient, secure and widely accepted by most e-commerce websites and service providers. M-Wallet can be used to pay electricity bills, mobile recharge, bill payments, booking movie tickets, online shopping. Demonetization has brought millions of people into the fold by using digital financing vehicles like debit cards/credit cards, online payments, M-wallets and it has become extremely convenient for a person to make cashless transactions through M-wallets.

#### *Types of Mobile wallets*

- Semi closed wallets (re-loadable but do not permit cash withdrawal or redemption, but will allow you to buy products at merchants which have tied up with M wallet service provider e.g. oxygen services, Paytm)

- Semi-open wallets ( linked to a bank, but do not allow cash withdrawal e.g. Airtel money, gift cards issued by banks)
- Open wallets (re-loadable and linked with a bank, permit cash withdrawal at retailer outlets, agent outlets e.g. m-pesa)
- Closed wallets (not re-loadable with cash and do not permit cash withdrawal e.g. prepaid and gift vouchers)

In India Mobile wallet operators follow a semi-closed model, according to which users load money in the wallets and make payments to only those merchants that have operational tie ups with a mobile wallet service provider. The major companies providing mobile wallet services in India are payment services companies like Oxigen Services, PayUMoney, Pay tm, Freecharge and MobiKwik. They have been successfully able to create such wallets and provide services that link technology, merchants and consumers. There are telecom service providers also such as Vodafone m-pesa, Bharti's Airtel Money, Aircel's Mobile Money.

#### **Benefits of Mobile Wallet**

- No delays and queues will ensure speedy operation and customer satisfaction.
- Users enjoy greater flexibility in making secure payments.
- Convenient to use and it eases the challenges faced in managing cash.
- One touch payment to the mobile recharge and for e-commerce transaction.
- Discount offers, cashback offers on every transaction made, instant refunds on order cancellations.

### **III. LITERATURE REVIEW**

Rathore (2016) suggested that Digital wallets are quickly becoming mainstream mode of online payment. Shoppers are adopting digital wallet at an incredibly rapid

pace, largely due to convenience and ease of use. There's no question 2016 will be a pivotal year as digital wallets gain more wide spread acceptance. Daru U. (2016) says that Cashless idea can work when everybody is under one roof as in India some people are well educated while others are thumb users. Nigudge, Khan and Pathan A. (2014) stated that no doubt Indian banks are making sincere efforts for the adoption of advanced technology and installation of e-delivery channels but still masses are wary of the concept. E-banks should create awareness among people about E-banking products and services. Customers should be made literate about the use of e-banking products and services. Kumbhar (2011) suggested that it is realized that mobile banking is one of the important way to financial inclusion in India. In the 21st century, "mobile" does not only mean of communication it is now mean of banking and financial services also. Sharma (2016) in concluded that there is a paradigm shift from the seller's market to buyer's market in the industry and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking". The shift has also increased the degree of accessibility of a common man to bank for his variety of needs and requirements.

#### **Research Methodology**

To conduct the present study, purposive sampling technique was used to collect data from the respondents. The selected respondents were the ones that were using M-wallet services on their mobile phones. Sample size for the study was 50 respondents. For collecting data from the respondents the questionnaire method was used. Data was collected from Delhi region. For analysis frequency tables and chi-square test was used.

#### **Analysis and Discussion**

For the present study, the collected data was entered in SPSS for analysis.

**Table 1: Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 25-55	30	60.0	60.0	60.0
56-75	20	40.0	40.0	100.0
Total	50	100.0	100.0	

The above table reveals that 60% of the respondents were aged 25-55 years while the remaining 40% aged between 56-75 years.

**Table 2: Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	30	60.0	60.0	60.0

female	20	40.0	40.0	100.0
Total	50	100.0	100.0	

The above table reveals that 60% of the population was male and rest 40% was female.

**Table 3: Nature of work**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid self employed	10	20.0	20.0	20.0
Service	10	20.0	20.0	40.0
Business	20	40.0	40.0	80.0
Homemaker	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table reveals that 20% respondents were self employed, 20 % were in service, 40% were in business and remaining 20% were homemakers.

**Table 4: Qualification**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid under graduate	20	40.0	40.0	40.0
graduate	20	40.0	40.0	80.0
post graduate	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table reveals that 40% of respondents were under graduate. Another 40% of the respondents were graduate and the remaining 20% of the respondents were post graduate.

**Table 5: Old and new users of M-wallet**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Old users	20	40.0	40.0	40.0
New users	30	60.0	60.0	100.0
Total	50	100.0	100.0	

The above table reveals that 40% of the respondents were old users of M-wallet services while 60% of the respondents were new users.

**Table 6: Concerns about using M-Wallet Services**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid security concern	10	20.0	20.0	20.0
convenience to use by cash	10	20.0	20.0	40.0
easy to use debit/credit card	20	40.0	40.0	80.0

It leads to over spending	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table reveals that together 40% of the respondents had security issues while using M-wallet services. Another 20% found paying by cash as more convenient over M-wallet. 40% of the respondents still preferred to use debit and credit cards over M-Wallet. And 20% of the respondents found the using M-Wallet lead to over spending of their money.

**Table 7: Benefits of using M-Wallet Services**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid   compulsion           after demonetization	20	40.0	40.0	40.0
Convenience	10	20.0	20.0	60.0
ease of use	10	20.0	20.0	80.0
discounts available	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table reveals that 40% of the respondents started using M-wallet services out of compulsion because of cash crunch after demonetization. 20% of the respondents found it convenient and another 20% of the respondents found M-Wallet services easy to use. Remaining 20% of the respondents like using M-Wallet because of the discounts offered.

**Table 8: More use of M-Wallet post Demonetization**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid   yes	33	66.0	66.0	66.0
no	17	34.0	34.0	100.0
Total	50	100.0	100.0	

The above table reveals that 66% of the respondents increased their use of M-Wallet services post demonetization in India.

**Table 8: Transactions done using M-Wallet**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid   online shopping	10	20.0	20.0	20.0
payments of bills	20	40.0	40.0	60.0
retail shopping	10	20.0	20.0	80.0
booking movie tickets	10	20.0	20.0	100.0
Total	50	100.0	100.0	

The above table reveals that 20% of the respondents use M-wallet for online shopping. 40% of the respondents use it for paying bills. 20% of the respondents use it for retail shopping and remaining 20% book movie tickets using M-wallet services.

**Table 9: Age \* Moreuse of M-Wallet post Demonetization Crosstabulation**

		Moreuse		Total	
		yes	no		
Age	25-55	Count	26	4	30
		% within age	86.7%	13.3%	100.0%
		% within moreuse	78.8%	23.5%	60.0%
		% of Total	52.0%	8.0%	60.0%
56-75		Count	7	13	20
		% within age	35.0%	65.0%	100.0%
		% within moreuse	21.2%	76.5%	40.0%
		% of Total	14.0%	26.0%	40.0%
Total		Count	33	17	50
		% within age	66.0%	34.0%	100.0%
		% within moreuse	100.0%	100.0%	100.0%
		% of Total	66.0%	34.0%	100.0%

**Table 9.1 Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	14.275 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	12.066	1	.001		
Likelihood Ratio	14.645	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	13.990	1	.000		
N of Valid Cases <sup>b</sup>	50				

In the results of the "Pearson Chi-Square", it is revealed that  $\chi(1) = 14.275, p = .000$ . It can be concluded that there is a statistically significant association between Age and Moreuse of M-Wallet post Demonetization. That is, respondents aged 25-55 increased their usage of M-wallet than the respondents aged 56-75.

**Table 9.3: Symmetric Measures**

		Value	Approx. Sig.
Nominal by Nominal	Phi	.534	.000
	Cramer's V	.534	.000
N of Valid Cases		50	

Phi and Cramer's V are both tests of the strength of association. It can see that the strength of association between the variables is strong

**Table 10: gender \* Moreuse of M-Wallet post Demonetization Crosstabulation**

	Moreuse	Total
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			yes	no	
Gender	male	Count	27	3	30
		% within gender	90.0%	10.0%	100.0%
		% within moreuse	81.8%	17.6%	60.0%
		% of Total	54.0%	6.0%	60.0%
	female	Count	6	14	20
		% within gender	30.0%	70.0%	100.0%
		% within moreuse	18.2%	82.4%	40.0%
		% of Total	12.0%	28.0%	40.0%
Total		Count	33	17	50
		% within gender	66.0%	34.0%	100.0%
		% within moreuse	100.0%	100.0%	100.0%
		% of Total	66.0%	34.0%	100.0%

Table 10.1: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	19.251 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	16.670	1	.000		
Likelihood Ratio	20.164	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	18.866	1	.000		
N of Valid Cases <sup>b</sup>	50				

In the results of the "**Pearson Chi-Square**", it is revealed that  $\chi(1) = 19.251, p = .000$ . It can be concluded that there is a statistically significant association between Gender and **Moreuse of M-Wallet post Demonetization**. That is, male respondents increased their usage of M-wallet than the female respondents.

Table 10.2: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.621	.000
	Cramer's V	.621	.000
N of Valid Cases		50	

Phi and Cramer's V are both tests of the strength of association. It can see that the strength of association between the variables is strong

#### IV. DISCUSSION

60% of the respondents were aged 25-55 years while the remaining 40% aged between 56-75 years. 60% of the population using M-wallet was male. 20% of the respondents were self employed, 20% were in service, 40% were in business and remaining 20% were homemakers.

It is found that more than half of the respondents are new users (after demonetization). Many of the respondents still prefer to use debit and credit cards over M wallet. Adoption of M wallet will take time as it will be a habit changing experience for users. India is a cash majority country people are more in a habit of paying by debit or credit cards or by cash. People find it more convenient to pay by card or cash over M wallet. Others have security

concerns. Some are reluctant to use due to fear of overspending. People have started using M-wallet services out of compulsion because of cash crunch after demonetization. Few respondents found using M wallet to be more convenient than using credit/debit cards or carrying cash in their wallet. Some of the respondents prefer using M wallet because of cash back schemes and discounts available. 66% of the respondents increased their use of M-Wallet services after demonetization in India. On Nov. 8, All 500 and 1,000 rupee notes were instantaneously voided in a great demonetization effort that aimed to clean out the black market's cash supply. Banks didn't have enough of the newly designed banknotes on-hand to distribute in exchange for the cancelled notes, which lead to adoption of M wallets as an alternative to cash. More and more customers prefer mobile payments as an alternative solution for transacting online as well as offline. Many of the respondents use it for paying bills. 20% of the respondents use M-wallet for online shopping. 20% of the respondents use it for retail shopping and remaining 20% book movie tickets using M-wallet services. All mobile wallets have been helped greatly by demonetization. It can be concluded that there is a statistically significant association between Age and more use of M-Wallet post Demonetization. It is found that respondents aged 25-55 increased their usage of M-wallet than the respondents aged 56-75. Young people are more tech savvy in comparison to older people. With advancement in technology and increased usage of smart phones young people are opting for digital lifestyle to make things convenient and fast. It is concluded that there is a statistically significant association between Gender and more use of M-Wallet post Demonetization. Male respondents increased their usage of M-wallet than the female respondents.

## V. RECOMMENDATIONS AND CONCLUSION

The findings of this study suggest that adoption of M-wallet has increased due to three main factors convenience, ease of use, compulsion after demonetization. Adoption of M-wallet has increased amongst the respondents post demonetization. But gender differences and age differences in the adoption of M-wallet has been found. Females are less adaptive to M-wallet in comparison to male respondents. To increase their adoption rate there is need to ensure the safety and security of digital wallet transactions. Promotional programs should be conducted to create awareness among non-users. It is found that older People in age group 55-75 are less adaptive to M-wallet than people in age group 25-55. Main reason for slow adoption by older people is hands on experience. Some older people don't even know how to use smart phones. Young people are more tech savvy. To increase the adoption rate of M-wallet, it is required to

educate consumers about the benefits of M- wallet. Discount offers and cash back on transactions will also increase the adoption rate. The M wallet is a way ahead and it will soon become indispensable mode of payment in the near future.

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