



A COMPREHENSIVE STUDY ON RAPID ADOPTION OF DIGITAL PAYMENTS AMID COVID-19 CRISIS IN MUMBAI

Prof. Tulshiram Kamble¹ Dr. Anoop Sharma² Dr. Pushpendu Rakshit³

¹DGET, Research Scholar, Singhania University, Rajasthan.

²Research Guide, Singhania University, Rajasthan.

³Amity Business School, Mumbai Amity University, Maharashtra

Corresponding Author - Prof. Tulshiram Kamble

DOI- 10.5281/zenodo.7101493

Abstract

Demonetization decision coupled with government's initiative to make India a cashless economy is expected to bring a phenomenal transformation in the way people make payments and expected to increase inclination towards online payment. The covid-19 pandemic has expedited the shift towards digital payments, increased digital channel adoption, spurred consumer interest in savings and safer investments in India. Anxiety of spread of virus made physical transactions almost crashed, the digital payments in India have witnessed an exponential spike in the last few months of lockdowns. Among the various modes of online payments, the mode gaining popularity during present time is E-wallets. In a nation such as India where during COVID-19 crisis larger part of venders / customers favours Cash-On-Delivery, thus emphasizing increasing adoption rate. This generates research interest to study the readiness of people to use E-wallets and factors influencing the adoption of E-wallets including the factors refraining the usage of it, during the crisis epoch. This research paper is explorative by nature and aimed at examining the adoption of E-wallets as a mode of payment in Mumbai City, India based on literature review as a part of doctoral study.

Key words: - *Smartphone Users; digital Payment, E-wallet, COVID-19 crisis.*

Introduction

The diffusion of technology-based payment solutions hinges on addressing the needs, perceived or real, of consumers whose adoption will determine whether any specific mobile payment system becomes a standard (S. Ezell,2009). This paper is also about the attitude of people towards adoption of Digital Payments methods amid pandemic. Digital Payments were encouraged by Government of India after the announcement of demonetization on 8th November 2016. Mobile wallet with the support of mobile technology as allowed the owners of smartphone to carry out many financial transaction and identification implements the mobile wallet money is used in the various areas in India across businesses like banks, retailers and online shopping etc. The present study aims to explain the

increasing impact of e-wallet money endorsed by different companies during this pandemic crisis. When smartphones can function as leather wallets, it is called "Digital Wallet" or widely known as "Mobile Wallet". (Rathore, 2016). The technological advancement has made smartphone as devices where the mobile users can make money transaction or payment by using application installed in phone. India is currently at the top in usage of digital payments and will be seen in the next six months. However, India's mobile data penetration is still only 57 per cent even as mobile penetration is 87 per cent. Many e-retailers are also requesting payments via digital mechanisms, which is also contactless and reduces risk of spreading coronavirus. Besides the National Payments Corporation of India (NPCI) has also urged people to use digital payment methods, so that people

do not step out even to go to the ATM, reduce social contact and curb the spread of Covid-19. As the market for essential services has expanded, the retail stores have also witnessed a growth in the number of payments made via payment apps. According to a survey by consultancy firm Local Circles, when consumers were asked what digital payment app have, they been using the most in the last three weeks, since the coronavirus outbreak, 33% said Paytm, 14% Google Pay, 4% PhonePe, 10% Amazon Pay, 6% BHIM while 33% used other apps. In the past three months from March end till June 2020, over 42% Indians have used digital payment mode multiple times as compared to the pre lockdown period. Anyhow according to RBI data, usage of debit cards, the second-most popular payment mode after currency notes, crashed 44% in terms of transactions and 55% by value, compared to March 2020 pre lockdowns. The data also showed a 70% fall in use of credit card by volume and 60% by value. Digital wallet transactions were down 33% by value, while the fall in terms of numbers was 42%. This is the sharpest month-on-month slide observed in these three payments channels since demonetisation. The use of RTGS, NEFT, IMPS and UPI also fell in April as the economic activity nearly stalled. RTGS payments, which are mainly used by large businesses, MSMEs and vendors for high-value transactions, nearly halved to Rs 64 lakh crore from Rs 120.5 lakh crore in the previous month. NEFT, used by both corporates and individuals to transfer funds, fell 43% month-on-month to Rs 13 lakh crore. The value of transactions through IMPS, which is largely used by small businesses and migrant labours, fell 40% to Rs 1.21 lakh crore in April versus March. Bankers said IMPS volumes are a better indicator of payment patterns of the people at the bottom of the pyramid, since that is the cheapest form of fund transfer in India. The value and the number of payments in the economy continued to decline sharply in April due to the Covid-19 pandemic that has led to a nationwide lockdown and

the labour migration. Covid-19 has forced people to self-isolate, which is making people unlearn old methods and move to the new world. Other findings of the survey are that 85% of the Indian consumers prefer to save more in 6-9 months as compared to 80% in the current period and 72% before Covid-19. India also topped demand for insurance coverage with 83% consumers opting for an increase in life insurance coverage in the six-nine months from 80% currently, and 70% in the pre-Covid period. RBI Governor Shaktikanta Das on Monday urged Indians to use the Digital Payment infrastructure of the country in order to reduce the fallout of the Coronavirus Pandemic. Public can use these modes of digital payment from the convenience of their homes through online channels like mobile banking, internet banking, cards, etc. and avoid using cash which may require going to crowded places for sending money or paying bills. Physical cash handling as a daily routine, is being considered as a major cause of concern for risk of contamination,” said Mandar Agashe, the Founder of Banking Technology provider Sarvataara Technologies. “Contactless payments could be the way ahead and payment modes like UPI, IMPS, RTGS, Mobile wallets and Net banking could contribute effectively in reducing human interactions,” he added whilst suggesting sterilising of Physical Notes and Providing Incentives for Digital Payments as other counter-measures for the outbreak.

Review of Literature

Mobile payment instruments fall under the category of electronic money, which "includes all non-cash and non-paper payments instruments such as plastic cards and direct transfer and all money transactions via electronic channels"(S. Singh,1999). L. Van Hove. (2004) notes that electronic wallets, although frequently compared to debit cards, should instead be compared to cash. He explains that "the rationale behind their introduction - from the mid-1990s onwards - was indeed to provide consumers and merchants with an

electronic payment instrument that could handle small transactions cost effectively (L. Van Hove,2004). The Committee on Payment and Settlement Systems of the Bank for International Settlements defines an electronic purse or wallet as "a reloadable multipurpose prepaid card which may be used for small retail or other payments instead of coins" (Committee on Payment and Settlement Systems, 2003). Unlike debit or credit cards, transactions using an electronic wallet are carried out off-line without the direct involvement of financial intermediaries and the burden of these institutions' high fixed costs (Z. M'Chirgui and O. Chanel,2008). Electronic-Wallet allows users to make electronic commerce transactions quickly and securely. (Upadhayaya, 2012). A mobile wallet is a much-advanced versatile application that includes elements of mobile transactions, as well as other items one may find in a wallet, such as membership cards, loyalty cards and travel cards. (Shin, 2016). Through digital wallets, the payment infrastructure with immense advancement in technology has become highly consumer friendly. (Kunal Taheam, 2016). However, the idea of a digital wallet is not new. Indeed, Japan, America, Sweden and South Korea have already rolled out cell phone-based digital wallet solutions. Consumers in those countries can use their cell phones to pay for groceries, order drinks from a vending machine, and even identify themselves at airline ticketing counters. (Rathore, 2016).

Poonam Painuly And Shalu Rathi (2016) in their research paper "Mobile wallet :An upcoming mode of business transaction "have analysed that ease of transaction ,secured profile and convenience in handling application put forth the benefits of wallet money and also concluded that business sectors like banking ,retail, hospitality etc., are making use of wallet money and mobile payment instruments including contactless and remote payment in the customers –business and customers to customers areas.

Rajesh Krishna Balan, Narayan Ramasubhu, Giri Kumar Tayi (2006) in their research paper "Digital wallet: Requirement and challenges "have identified about Singapore's use of digital wallet and analysed the key challenges in building and deploying a digital wallet. Dr. Hem Shweta Rathore in her research paper "Adoption of Digital wallet by consumers "have analysed about the factors that influence consumers in adoption of digital wallet and also analysed the risk and challenges faced by consumers in usage of digital wallet and concluded that shoppers are adopting digital wallet largely due to convenience and ease to use and in the future years digital wallet will gain more widespread acceptance.

Rathore Hem Shweta studied various factors affecting adoption of digital wallet as a mode of payment by consumers and different risk and challenges encountered by users while using digital wallet. The study was conducted by collecting primary data through a structured questionnaire from 132 smart phone users (respondents). Researcher found that main factors contributing towards the adoption of digital wallet as a mode of payment are convenience in making payment online, brand loyalty and usefulness of digital wallet. It was found that users of digital wallet are satisfied with the services provided by them. The most crucial and challenging issues for adoption of digital wallet are security and safety. Shoppers are adopting digital wallets at an incredibly rapid pace, largely due to convenience and ease of use. (Rathore, 2016)

Tahem Krunal, Sharma Rahul, Goswami Saurabh (2016), conducted a descriptive study to examine the factors driving use of digital wallets in state of Punjab. The study was conducted during the fourth quarter of 2015 by collecting primary data from 386 (Selected using snowball sampling) users of digital wallets in state of Punjab. The results of this study indicated that People in Punjab have been found using digital wallets due to the motives of controllability & security,

societal influence & usefulness and need for performance enhancement. This study indicates that people of Punjab use any type of digital wallet due to one or all of these identified motives. (Kunal Taheam, 2016)

Kalyani Pawan in his paper studied the awareness and usage of paperless E-Currency transaction like E-Wallet using ICT in the youth of India. The paper elaborately explains features of various E-wallets in India. Researcher found that the most preferred modes of payment among the selected respondents are Cash on Deliver (COD) and credit card and debit card. It was found that respondents have good amount of information about the e-payment and e-wallet services available in India, but they know very little about the same types of services available outside India. Researcher concluded that awareness and practical usability of the E-wallet is low, that should be increased by adding more value added services to it. (Kalyani, 2016)

Sardar Ramesh studied the preference towards mobile wallets among the urban population of Jalgaon city of Maharashtra. The study was collected by collecting primary data from 60 users of mobile wallet through a structured questionnaire. The study aimed at examining the awareness and preference towards the usage of Mobile wallets in Jalgaon and to find out the impact of various demographic variables on the usage of mobile wallets. Data was analyzed using chi-square and t-test. It was found that Majority (29%) of the respondents are preferred to use Mobile wallet payment to transfer money followed by recharging mobile or DTH payment and so on. Majority of respondents (90%) believes that an instant payment is an important factor to opt for Mobile payments. Respondents opined that security is the most critical issue while making online payment. (Sardar, 2016).

Shukla Trilok Nath in his research paper “Mobile Wallet: Present and the Future” stated that based on current developments, it is safe to say that mobile wallets will soon be a self-reliant

ubiquitous ecosystem. In the near future, mobile wallets will be used to engage with the customer by the marketers and digital businesses. With the addition of the value-added services that go beyond just payment, experts believe that mobile wallets will become a new marketing channel. Mobile wallets won't just be about mobile payments; they would become one of the major contributors of a seamless shopping experience for the customers. Simply offering faster and more-secure payments would no longer be good enough; the industry players will have to counter the real pain points such as giving consumers the ability to see what's on stored value cards at any moment in time, access loyalty points, or automatically receive digital copies of payment receipts. (Shukla, 2016)

Hee Shin-Dong, in his study “Towards an understanding of the consumer acceptance of mobile wallet” seeks to validate a comprehensive model of consumer acceptance in the context of mobile payment. It uses the unified theory of acceptance and use of technology (UTAUT) model with constructs of security, trust, social influence, and self-efficacy. Structural equation modelling is used to construct a predictive model of attitudes toward the mobile wallet. While the model confirms the classical role of technology acceptance factors (i.e., perceived usefulness and ease of use are key antecedents to users' attitude), the results also show that users' attitudes and intentions are influenced by perceived security and trust. (Shin, 2009)

Sanghita Roy, Dr. Indrajit Sinha stated that E- payment system in India, has shown tremendous growth, but still there has lot to be done to increase its usage. Still 90% of the transactions are cash based. Technology Acceptance Model used for the purpose of study. They found Innovation, incentive, customer convenience and legal framework are the four factors which contribute to strengthen the E- payment system. Sanghita Roy, Dr. Indrajit Sinha (2014)

Rakesh H M & Ramya T J in their research paper titled “A Study on Factors

Influencing Consumer Adoption of Internet Banking in India” tried to examine the factors that influence internet banking adoption. Rakesh H M & Ramya T J (2014)

Objective of the Study

- 1) To study the consumers perception towards mobile wallet during COVID-19 epoch.
- 2) To study the pandemic influence on consumers in adoption of mobile wallet.
- 3) To study the increasing rate of digital transactions in Mumbai amid pandemic.

Various methods of Digital Payments available in India are as follows:

1- NFC or MST transmission waves platform Companies have come up with making transaction through NFC (Near Field Communication) and MST (Magnetic Secure Transmission) technology. Without swiping your card through POS (Point of Sales) machines, you can easily make payment to merchants through its wireless transmitting magnetic waves. You can avail this facility by downloading MST enabled app and also, your phone should support NFC facility. Once it is done, after registering your card details, you can make contactless transactions through your phone on any of merchants' POS terminal.

2- Digital wallet payment system Through this platform money is loaded in wallets. Similarly with the launch of e-wallets you can add money using digital wallet apps. However, the constraint is you can transfer fund to the same wallet only. It means that if you have PayTM or SBI's Buddy app on your phone then you can only transfer money to another person's Paytm wallet or SBI's Buddy app who is having these apps installed respectively. Simply in another way round, you cannot transfer money from Paytm wallet to SBI buddy wallet app. There are some other e-wallets available in the digital marketplace such as Mobi Kwik, Free charge, Oxygen, JioMoney, PayPal, Buddy, Pockets etc.

3- USSD code payments system If you do not have a smartphone or internet facility, still you can make payments through dealing USSD (Unstructured

Supplementary Service Data) code even from your basic phone and following the certain instruction, you can easily make your payments done. It is GSM-based technology where transactions take place through messages. It is a platform which forms a medium between the telecommunication and banking financial services altogether. For every banking app, you have a different dialling code which you need to check from your service provider while making the transfer of payments.

4- Mobile Money Identifier MMID is a seven-digit unique number which issued by the bank once you have registered your mobile number. A person who wants to send money and the person who wants to receive that money should have MMID for the particular interbank funds transfer. However, through MMID you can transfer only a small amount (around Rs 10,000) within a day. Almost all banks are providing this facility of making small payments.

5- UPI App based payments platform UPI has come up with a unique feature of creating virtual address through which you can transfer money without disclosing your account number and IFS code to the receiver. UPI works on a real time basis which means the money is transferred instantaneously. UPI also supports the other medium of doing funds transfer. UPI facility is available with all the banking apps like HDFC UPI, SBI UPI, ICICI UPI, AXIS UPI, and almost all the other private and public banks. Now, most of the bank are embedding their UPI feature within their mobile banking app only.

6- QR Code based payments system QR code is again a different mechanism of making the transfer of payment where you only need to scan the QR code of the merchant and do the transfer of payments. It is being mostly used by all the digital payments app like BHIM, other banking apps to make the transfer of payments easily. The black square holds the information about the items whereby scanning the code information gets transmit automatically through the smartphone and payments get done. You

do not have to enter anything manually while using QR code facility. Bharat QR code has been launched by the government to push the digital payment initiative in all the way round.

Major challenges/ problems of digital payments

1. Lack of trust among people in digital payments.
2. Lack of knowledge and awareness among uneducated or less advanced people.
3. Less reliability due to scams and hacking cases.
4. Loss of internet connection sometimes.
5. Delay in cashback processing by E-commerce Companies and e-wallet Companies.
6. Sometimes the payments get blocked and no confirmation is sent to customer regarding status of payment.

Limitations of the study

- Limited coverage of areas.
- Small sample size of 110 people.
- Less interest shown by respondents in writing their opinions.

Conclusion

Mobile wallet usage awareness as spread among the people in India due to government policy of demonetization and this as forcefully induced the usage of mobile wallet .The security issues are tighten and risk factors are reduced will automatically increase the adoption of mobile wallet .Apart from these issues the convenience and ease of use as gained an credit to mobile wallet and it can be concluded that they will be a tremendous growth in adoption of mobile wallet in the forthcoming years. The study identifies that the pandemic epoch has made an increase in the rate of online payment. India has been ranked highest in the use of digital touchpoints in next 6-9 months, with strong growth in voice assistants and chatbots as emerging channels of interaction for banking and insurance segment.

References

1. Axis Bank Launches Mobile Wallet to Shop, Pay and Bank (2015, Sept 11) The Business Standard, Retrieved from www.business-standard.com/article/finance/axis-bank-launchesmobile-wallet-to-shop-pay-and-bank-115091101575_1.html.
2. Dr. Hem Shweta Rathore (2016) “Adoption of digital wallet by consumers” BVIMSR’s journal of management research. Volume 8 issue 1, pp 69-75.
3. Dorothy Sagayarani, Digital payments in India; IOSR Journal of Business and Management.
4. KUMAR., A & SERI., S.P (2014) White paper Banking on the Mobile Wallet - Infosys, Retrieved from <https://www.infosys.com/.../white-papers/.../banking-mobile-wallet.pdf>
5. Gregory., J. G (2014) Hotels & Restaurants Dabble in Mobile Payments.
5. K. Suma Vallyand KHemaDivya, A Study on Digital Payments in India with Perspective of Consumer’s Adoption; International journal of Pure and Applied Mathematics, Vol. 119, No. 15 2018.
6. NGOC DOAN(2014) “Adoption of digital wallet by consumers”www.google.com
7. Poonam Painuly And Shalu Rathi (2016) “Mobile wallet: An upcoming mode of business transactions “International journal in management and social science. volume 4 pp356- 363.
8. SINHA.,S.(2015). RBI norms to facilitate E- Commerce, retrieved from <https://economictimes.indiatimes.com/new/economy/policy/rbi-norms-to-facilitate-ecommerce/article.show/49102033.cms>
9. Shin, D.-H. (2009, July). Towards an understanding of the consumer acceptance of mobile wallet. Elsevier , 1343-1354.
10. Shin, D.-H. (2016). Towards an understanding of the consumer acceptance of mobile wallet. Elsevier , 1343-1354.
11. Shukla, T. N. (2016, June). Mobile Wallets Present and Future. International Journal in Multidisciplinary and Academic Research (SSIJMAR), VI (3).
12. Sinha, I. (2016, April). Mobile Wallet service Utilisation in India : emperical analysis of user trust and acceptance factors. International Journal of Scientific & Engineering Research, VII (4), 1762-1772.
13. Shamsheer Singh and Ravish Rana, STUDY OF CONSUMER PERCEPTION OF DIGITAL PAYMENT MODE; Journal

of Internet Banking and Commerce, December 2017, vol. 22, no.

14. Thulsiram, R. V. (2016). Acceptance of E-Wallet Services: A Study of Consumer Behavior. International Journal of Innovative Research in Management Studies (IJIRMS), I (4), 133-141.
15. Upadhayaya, A. (2012). Electronic Commerce and E-wallet. International Journal of Recent Research and Review, I (1), 2277-8322.
16. Upadhyay, A. (2012, March). Electronic Commerce and E-wallet. International Journal of Recent Research and Review, I (1).