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A STUDY ON GROWTH OF MOBILE BANKING IN INDIA
DURING COVID-19

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ABSTRACT

Banking has transformed from the traditional brick-and mortar prototype to modern day mobile banking which has enabled the customers to reach their banks virtually through Mobile phones and avail services anywhere and at any time within the click of a button. Mobile banking has provided innovational ways of conducting balance enquiries, online fund transfers, utility payments and other services with the help of a simple mobile handset. The constant developments & improvements in the fields of Information & technology have given rise to a number of enhancements in the product & service designing and their supply in the banking sector. The use of M-Banking is increasing with the addition of multiple services provided by the Banks as the customers find it very easy to pay their electricity bills, perform mobile recharges ,conduct immediate transfer of funds and much more Singh, N; Srivastava, S; Sinha, N (2017) The launch of various Mobile banking apps like ICICI iMobile, HDFC Mobile Banking, SBI's YONO App etc. has proven to be the game changer across the globe and has forced the customers to shift to banks that provide M-Banking Services. The GOI has also extended its support to the mobile wallets through its partnership prototypes with various banks to increase the acceptance of M-Banking among the users. RBI has also been promoting the digital payments through Mobile Wallets during the Covid-19 pandemic as it would ensure the social distancing norms as well as the flow of transactions at the same time without causing any exposure to the virus Dr. Jain, A; Dr. Sarupia, A; Kothari, A (2020) After demonetization, the Covid-19 pandemic is the second largest situation that has led to a 5% growth in the mobile banking just in a period of 3months from January to March 2020(Statista) and is further expected to grow even more. Hence this study is aimed towards

identifying the growth in the mobile banking during Covid-19. The research also intends to study how significantly these online transactions have helped during the Covid-19 pandemic.

INTRODUCTION

India was in a demonetization phase, when the Government had started promoting cashless transactions. After recognizing the potential of internet and technology, the Digital India project was launched by the Govt. of India, which aimed at transforming the country into an integrated economy, with the use of mobile phones and internet as two supporting pillars for extending government services (Kumar, P & Dr. Chaubey, D (2015)). Various mobile websites and apps were developed to provide facilities to the customers which were cost effective when compared to the cost of branch banking which was 43 times more. It was a difficult task for the Indians to get adjusted to the online platforms as Majority of the people were used to making transactions in cash and were of the perception that conducting the same through mobile banking wasn't safe whereas others lacked the awareness and knowledge about the same. India is regarded as the fastest emerging smartphone market in Asia. Since the onset of budget friendly smartphones, customers are increasingly joining the mobile banking platforms as they offer various services with the touch of a button. Customers can check account balances, transfer funds between accounts, and make electronic bill payments without travelling to a traditional bank. The customers have to no longer worry about the availability of liquid cash as transactions are taking place electronically. Indian consumers gradually adjusted towards mobile banking as "Digital offerings in mobile banking was the new normal" (KPMG). After digitalization, Customers were more likely to draw towards those banks which offered them with Mobile Banking Facilities. The launch of various M-banking apps had proved to be a game changer across the globe and had compelled customers to shift their banking partners. Internet banking as a technology has improved offering the various customer personalized needs now a days, the changing of infrastructure and nature of banking from "Bricks to "Clicks" (Priya, R; Vikas Gandhi, A; Shaikh, A 2018). The outbreak of COVID-19 pandemic has wrecked the world economy and financial markets. It is drastically affecting the financial health in India as fast as it unfolds.

On March 25, India imposed one of the world's earliest, stringent lockdown, while its caseload was still low. This was a good initiative by the central government as imposing a lockdown helped in keeping people indoors, which facilitated in breaking the chain. India has been facing many difficulties in extending its banking facilities due to the nationwide lockdown. Countless people have become cashless, banks are deprived of their regular Cash flows and there has been an increase in the loan defaults. Despite the prevailing challenges, People cannot behold themselves from making their obligatory payments and routine transactions for a living. But the likelihood of becoming infected with COVID-19 by touching a virus infected object or surface is high. Physical cash handling can further accelerate virus spread. Hence the need of the hour would be to shift to online payments and use mobile wallets. Government of India has also extended its support to the mobile wallets through its partnership prototypes

with various banks and IT companies to increase its adoption and acceptance among the users. The launch of 3G and 4G services in India has brought in collaborations between various telecom companies and banks to enhance the mobile wallet services. It is projected that COVID-19 would increase the usage of M-banking due to two factors. Firstly, mobile banking would promote the social distancing policy, enabling the people to make transactions safely and securely from their homes and as majority of the services are being offered on the online platforms, customers would have no other choice than discovering the options of mobile banking (V, G; & Manu, M; (2020)). The development's in the field of internet & technology and the existence of fintech companies have been a boon to the world and have made our lives much easier during the pandemic. Over 500 million people in India now use smartphones (Goyal, V; Pandey, U.S; Batra, S (2012)).

The mobile banking sector has an upward trend in countries like India as one-fifth (19.1%) of the total population is composed of the younger generation, which is further projected to grow up to 34.33% share by 2020. (Statista) Majority of the youngsters are familiar with digital technologies and depend upon them in numerous areas of their work and professional lives. They are in support of a competitive mobile banking platform which are available round the clock. Several studies have also demonstrated that India is the world's second largest country in terms of the internet base with 350 million internet users, out of which more than 50% are mobile users (Iyengar, 2017). If we take into account the combination of two factors- a large unbanked population and the ubiquity of smart phones –there is a catalyst for high mobile banking adoption (Dr. Deshwal, P 2015). Mobile technology has transformed the global banking structure and financial industry by delivering accessibility, convenience and affordability to the customers. Contactless payment is the only way out ahead and payment modes like UPI, IMPS, RTGS, Mobile Wallets and Net Banking are contributing effectively in reducing human interaction. The COVID-19 outbreak has led to a 5% increase in the usage of mobile banking in just a period of three months - January to March and is expected to further increase by a large proportion (Statista). Global Digital banking system has boosted up to 85% (Forbes).

With the wide spectrum of internet users and emergence of fintech industries, Indian Government will be able to promote the Digital India Program. The approach of mobile banking facilities with innovated technology, will ensure higher security and promising aspect for meeting the customer needs without compromising on their health and safety. Especially in times like COVID-19, Mobile banking can be used as an opportunity to replace the physical banking transactions by satisfying the customers in meeting their needs conveniently. Hence it is feasible to study how customers are adopting to mobile based payments during hard times like COVID-19.

REVIEW OF LITERATURE

1. (Deshwal, 2015) in her, study discussed about how mobile phones have been immensely providing financial services in India and its contribution to the economic growth at reduced costs. She believes that a good way to

ensure inclusive growth of the common man is by reaching out to the remotest locations of the country. The collaborations among various organizations are necessary to increase the penetration of mobile banking from high end users to low end users and from big metropolitan cities to rural areas. She further points out how the customers could be driven towards mobile banking with the help of various advertising campaigns.

2. (Goyal, Pandey, & Batra, 2012) in their study have arrived to the conclusion that in order to ensure the successful implementation of the online payments and its wide acceptance, elimination of the various obstructions in the fields of security and privacy is mandatory. They further pointed out that it is important for the businesses and merchants to step forward and make value-producing investments so that the customers develop trust and readily adapt this model of payments. They have also discussed that despite of the failure of many solutions towards extending secure transactions, numerous efforts are being made for the development of potential technology innovations that can deal with the security concerns of the customers and redress their grievances.

3. (Sreelakshmi & Prathap, 2020) in their study recommended that conducting various Health and awareness campaigns on the threat of Covid-19, would prove to be beneficial in the promotion of mobile banking along with preventive health concerns. They also discuss how important it is to reiterate the needfulness for fostering self-efficacy amongst the customers to utilize the services via online literacy and promotion programs. Their study also pointed out that through the provision of additional features and offerings on a single platform, the adoption of mobile payment services could be further boosted.

4. (Priya, Gandhi, & Shaikh, Mobile banking adoption in an emerging economy: An empirical analysis of young Indian consumers, 2018) in their study pointed out that mobile banking should be perceived as effective, smooth, faster and a convenient way to conduct banking transactions. They believe that banks are ought to take the advantage of this opportunity and provide additional value offerings to the customers with a view to promote the mobile banking platform. It was also discussed that if the customers could perform the transactions without encountering any errors, then their perceptions about the privacy and security would reform and they would be motivated to move towards mobile banking. Hence one satisfied customer could further drive many customers. They also found that the growth of smartphone market in India could be one of the greatest opportunities for the banks to expand their mobile banking services if they could discover their customer's desires.

5. (Ramayah, Muhamad, & Noor, 2003) in his paper observed that one of the key factors that determined the willingness of adopting new technologies by the customers was the ease of accessibility. He discussed that making customers aware of the benefits of mobile banking and providing them with guidance would make it easier for them to adopt it. It was also found out that certain factors like the increased dimensions of the websites made it difficult for the customers to access it on smaller screens. In order to tackle the same, it was suggested that the development of a friendly UI with good graphics, visual appeal, help options and meaningful error messages could make it easy for the customers to adopt it.

6. (Laukkanen & Kiviniemi, 2010) in their study have defined mobile banking as an interactive platform in which a customer uses devices such as smartphones and personal digital assistants to connect to the banks. Through mobile banking customers can check their account balances, make fund transfers and pay their utility bills electronically. They also point out that mobile banking has a vast market potential as it provides 24/7 access to the customers enabling them to make transactions virtually from any place and at any time.

7. (Singh & Srivastava, 2017) in their study have suggested that in order to increase the adoption of mobile banking, various parties like device manufacturers & service providers must extend increased security features in the mobile devices. They also state that the establishment of relevant regulations, policies and legal frameworks are essential to enhance the customer's trust. An Initiative is to be taken by the business practitioners to ensure privacy protection and improve data transmission services. They believe that a clear and crisp explanation of the mobile banking services through online demonstrations and user instructions would increase the customer's awareness about mobile banking. This is necessary as mobile banking is a recent development and is new to Indian customers, hence promotional efforts are to be made along with extending technical support to the customers in order to make them feel comfortable.

8. (Patil, Dwivedi, & Rana, 2017) have declared that resources such as digital literacy and internet facilities are still lacking in many of the developing countries due to which it is difficult to promote digital financial services (DFS). A Rural population of around 6, 50,000 villages in India are still technologically backward and do not have internet connectivity. Hence rural India is still behind the urban cities as despite of various efforts taken by the government such as building digital infrastructure and creating digital ID's it has not been much successful in promoting DFS. They have also discussed that it is very important for the center government and the 29 state governments to coordinate with each other in order to promote DFS in India.

9. (Deb & Agrawal, 2017) in their study discuss that govt. could play an important role in improving the facilitating conditions (FC's) by improving the device complexities and mobile networks. As per as them It is difficult to achieve financial inclusion as the entire population doesn't have access to the banking services. According to their study only 47% of the people in India have access to the various banking services. It is fundamental to comprehend that providing wider varieties of banking services to each resident of India in a cost-effective way can be acknowledged by offering technologically advanced services i.e., m- banking services that are cost effective. It was also suggested in the study that the GOI should work toward establishing FCs and trust. If the GoI/policymakers overcome such reluctance and barriers to market entry, it will enable the country to ensure an optimum adoption of such technologically advanced channels and contribute to the realization of the GoI's vision for achieving a leadership position in IT by means of the Digital India program.

10. (Tandon, Mandal, & Saha, 2003) described m-commerce as mobile business they found that Network and service technologies are the main protocols of the new technology. Their study discovered that an absence of

proper management can lead to the failure of mobile business activities. Operators and manufacturers agreed that data transmission speeds, user interfaces and the high cost of data services were important for consumers, but security issues were the biggest obstacles to the adoption of m-banking.

11. (Grewal, 2012) in his study revealed that in comparison to the other countries across the globe, mobile internet and service charges were very low in India. The study also found that people were readily willing to pay for the unlimited mobile data plans and the GOI had taken various initiatives to improve the growth of mobile banking in India. It also points out how with the revolutions in the fields of Internet Communications and Internet technology, various barriers caused by availability, cost and illiteracy could be controlled.

12. (Gupta, Manrai, & Goel, 2019) in their study have pointed out that payment banks represent interesting and new areas to be studied especially the core challenges that are to be faced in introducing this technology-based service for ensuring the FI (Financial Inclusion) of unbanked and under banked customers. Taking into consideration the initial stages of payment banks in India. Their study acknowledged the requirement of inspecting the various leading factors that would impact the Indian customers' intentions to undertake payments banks services. They also point out that there are very limited studies that have addressed the issues of mobile payments and mobile banking in India. Their study articulated and tested an integrated model to explain the decision of adopting payments banks services.

13. (Gupta & Xia, 2018) in their study identified the evolution and importance of Fintech's in Asia. This technological revolution enables us to adopt a banking system that serves the customers better, reduces their risk and risk to the society. They point out how India is witnessing the strong upcoming of Fintech's and is being driven by payment and lending solutions. It also tells us that the ASEAN FinTech industry is attracted towards mobile banking and wallets. The government plays the most important role in this regard as it assess the path these startups are headed towards which will further unfold the landscape of banking in the coming future.

14. (Priya, Gandhi, & Shaikh, Mobile banking: consumer perception towards adoption, 2018) in their study, they have focused on analysing the usefulness, ease of use, risk factor, assurance by the company and credibility that the customer perceives while shifting from traditional way of banking to "clicks banking". They validated that user satisfaction utmost important and has strong influence while adopting the m-banking. Instead of having wide range of smartphone available in India users deny to accept the use of mobile banking in some parts of the country. The companies need to give the more surety in terms of error free transactions and no electronic threats. Companies and the GOI can devise a policy to increase the adoption by all age groups and encourage injections of fintech investment in India. They clearly stated that higher the customer satisfaction is directly proportional to the growth rate. This issue was explored by them suggesting that banks and the mobile handset manufacture can collaborate together to develop a smartphone by keeping in mind the requirements of the customer.

15. (Sinha, Majra, Hutchins, & Saxena, 2018) Their research focuses on the privacy concerns of the customer seek into while opting for the mobile

banking in India. Since, the demonetisation India has seen a rapid growth in the technology infrastructure. Due to the lack of privacy concerns and information policies in India customer tend to turn down after a certain period of time. Companies need to focus more on the individual security and serve them according to the demand and usability. India has a very fragmented mobile money market in post demonetisation, the new adopter to the new method of payment were from varied classes. From my search of the literature, it is clear that the government and the fintech giants should be able to reassure the customers in making use of digital payment platforms instead of cash.

16. (Kumar, Mathur, & Lal, 2013) Their study talks more about delivering the financial literacy among the people and gain the confidence in order to so that companies increase their customer base. Indian societal belief system is very different from the western world, here capitalist need to understand the relevance. India will adapt the changes but it will take long duration as their study concludes.

17. (Zhang, Lu, & Kizildag, 2018) After an initial overview of related work, we examine specific prior work on Banking “on-the-go” their paper aims to analyse the factors that affect the acceptance and involvement of the customer who use the mobile banking. According to finding customers are slowly and gradually positively developing trust towards mobile banking services. Customers are majorly concerned about the fraudulent activities, reliability in the transacting platform and especially the privacy of their personal data. In the near future the financial institutions will be more personalised and utility product with the advent of new fintech start-ups. Therefore, for the banking companies and the new payment banks they have to be more user centric so that wide range of people opt for the mobile banking services.

18. (Singh, Srivastava, & Sinha, 2017) The study mainly focuses on the preference of North Indian, acceptance of mobile wallets by them. The research finding tells us that those set of population have accept mobile wallet as good platform for transaction as it is user friendly approach, secure, convenient and reliable. In their opinion north Indian find it convenient and ease in using the mobile apps as it saves their time, cheap, they adapted easy in their lifestyle and have apps like Paytm and GooglePay give them offer on certain number of transactions. The important aspect which their study tells us that is gender, it is key variable in the preference and usage of mobile banking services as males use more services compared to females. They also found that usage is increasing as the new services are continuously being added by the mobile wallet’s companies, customers find it easy to pay their electricity bill, mobile recharge immediate transfer of funds and many more.

19. (V & Manu, 2020) We briefly review the body of related work that is available on the “Impact of COVID-19 on Mobile Banking services”, this study finds that in India there is huge demand for GooglePay and due to this pandemic, it has shown a significant rise in its useability and reliability. COVID has disrupted the lives, social reach and also have affected the economy in the short term. People in India are facing many problems due to immediate shutdown, necessities were needed to meet and transactions were done through mobile apps with modernized services. Their study says this

technology tool also helped to maintain social distance in order to safeguard their life. Their primary analysis clearly states that usage has increase due to COVID-19.

20. (Tam & Oliveira, 2017) This paper was primarily focused on extensive study of m-banking by measuring individual performance level. They have developed models which help the new researcher and practitioners to synthesise their study. Their investigation helped us a lot to give a clear picture on mobile banking. They also talk about how the cultural diversity and how does it influence and effect the adoption technique. They also focus on the customer centric approach so that they have higher profits.

21. (Sivathanu, 2018) India withdrew its Rs. 500 and Rs. 1000 currency notes on 8th November, 2016 and hence those currency notes are not into circulation anymore. Their study says that India has shown unbelievable growth in mobile banking UPI transactions. They examined numerous technological factors that what makes customer adopt the mobile banking during the hard times such as demonetisation. The main intention of adoption by customers are dependent on two variable behavioural intention and innovation resistance. People in India have built up mindset regarding the usage, value in terms of money, risk factor, traditional currency barrier which will slowly scale down as innovative technology companies come and invest in India. Their study tells us that the new integrations in mobile banking services have brought a shift from traditional way of transaction to mobile banking.

22. (Dubey, Sonar, & Mohanty, 2020) The literature is reviewed to examine available methods that could be used to carry on the daily transaction during the hard times like COVID-19. Their paper focuses on paperless transaction how people manage to pay their bills as cash transactions may carry some contamination. Internet of Things and Artificial Intelligence has made the mobile banking easier. They talk about RegTech will prove be winner post COVID-19. Contactless payment has indirectly helped us to follow some social distancing measures. People have started accepting, building trust, feeling secured using various mobile banking platforms from online bill payment to online money transfer using UPI. They conclude by stating that advancement in mobile banking has been comfortable to avail all services at their door step.

23. (Iyengar, Upadhyaya, Vaishya, & Jain, 2020) Several studies have explored the effects of Smart technology during all other economic regressions but COVID-19 is a global pandemic. COVID-19 transmission is very easy compared to other problems, smart phone companies and technology companies have a good opportunity to cater to large amount of consumer at same time staying at same place. Smart phone technologies have helped us a lot to avoid personal contact.

24. (Kumar & Chaubey, 2017) India flagged its Digital India Programme just after demonetisation with a vision to enhance the India digital working scenario. Their study talks about post demonetisation and the role of banks from going offline to online. They gave a broader perspective about cash and non-cash transaction. The more secured banking cards with more developed ways of authentication, Aadhar Enabled Payment System, UPI, Mobile wallet, Point of Sales (POS), IMPS all of these services have been successfully combined under M-Banking. One device for all types of

transaction customer do not need to browse through hundreds of websites for unsimilar transaction. They conclude that digitalisation will always help India in long run.

25. (Sundar, 2020) Their research was in specific geographic location of India i.e., Telangana during demonetisation. Retail sector has been into many changes post demonetisation with the help of mobile banking and digital payment modes. It has all retailer to cut down the operating cost. According to his empirical study e-Billing, e-Transfer, and e-Banking services has guaranteed customer services delivery without delay. This has improved the credibility, safety and security among the customers and incline them to use mobile banking services like Paytm & GooglePay. Due to problems of less withdrawal from ATM, liquidity crunch the usage of cards, rupay, smart cards and electronic fund transfer has declined whereas on the other hand the mobile banking sector has shown 3% increase after demonetisation policy. Specially Paytm got a 70% usage increment after demonetisation.

26. (Naskar, 2019) This paper gave us an overview of digital economy of India. India is a developing country where people are more eager to adopt new things easily. Digital India was good step for the economic welfare and prosperity of nation by removing, money laundering, black money and fake currency. In India the biggest challenge for these m-banking companies is that to maintain high security, privacy of customer data, cyber frauds and built the internet infrastructure in India with the help of new IOT devices.

27. (Raj & Bahl, 2020) had analysed the whole Indian economy which has gone for a toss due to the COVID-19. There are losses in revenue, increase in unemployment, decline in all sector has been seen by measuring the Financial Market. The Paper especially talks about effects of COVID-19 on Indian economy, supply chain, unemployment, financial market, banking & currency. The emerging digital companies play a key role to facilitate smooth operation between retailers and customers with minimum casualties. Earlier banking system were too monotonous from the advent of m-banking it has been easy for customer get services avail just at one click.

28. (Jain, Sarupria, & Kothari, 2020) WHO declared COVID-19 as the global pandemic. The business has been affected on a very large scale. However, some of them who managed to enable the digital technology and payment method significantly have increased the operation like Big basket, Grofers, 1MG, Netmeds, Pharmeasy, Medlife, Jio services, Ed-Techs like Coursera and edx, and the payment platforms such as Paytm, GooglePay, Amazon Pay, Airtel Payment Bank, PayPal etc. Meanwhile RBI has been pushing the digital payment during COVID-19. Use of NEFT, IMPS and UPI like services will keep the operations moving and operations wouldn't be filly shut down and will also us to maintain social distancing norms. Their study suggests us that using M-banking is safer.

29. (Kumar, Dhingra, Batra, & Purohit, 2020) their study demonstrated that factors like easy to use the technology, usefulness during hard times and faith in adapting those online transaction play a very crucial role. Ease of use increases as and when the new and advance technology is the market, but their study derived that trust is most important when it comes to mobile banking in India. They also mention about the convenience that are offered

by banks to their customer is a good utility tool and educating them about convenience and ease of usage will benefit all of us.

30. (V & Babu, 2019) their study focuses on the mobile banking technology that is increasing rapidly in India since January 2018. The main factors that affect the growth of mobile banking is security, crash in network, need improvement in mobile devices, and standardization. According to them M-banking has been very easily accessible to customers, promotes digital currency and paperless transactions and customer are widely offered few coupons and recent offers during peak seasons. They also identified that there are many mobile devices that do not support the advance technology application so companies need to have mobile devices accessible.

31. (Gujrati, 2017) in her study she has focused on Digital India programme being the root cause of Paperless Economy. She also stated that government took steps to increase the transparency of transactions happening on daily basis. To promote this objective government took steps like demonetization and started promoting online payment system which also helped small retailer to get into the system. India took time at initial stages as small retailer didn't had enough funds to establish resources to establish the digital payment systems but now it has grown to a very large extent.

32. (Lakshmi, Gupta, & Ranjan, 2019) they identified that UPI payment are the main selling point for all the payment services providers, the mobile pin security has improved over the years and customer find it easy to have transaction.

RESEARCH GAP

Though Mobile Banking has been a significant mode of transaction post demonetization, however during this pandemic it has been a very crucial mode of transaction as people are not comfortable with dealing in cash transactions due to the fear of the spread of the Covid-19 virus.

The research intends to study what all changes have happened in the transaction patterns and how significantly these online transactions have helped during the COVID-19 period.

Many Studies have explored the Factors impacting the adoption of m-banking, Paradigm Shifts in Banking, Banking "on-the-go" adoption of mobile banking services, analysis of young Indian consumers in mobile banking adoption, Impact of COVID-19 on Traditional Banking, : FinTech, RegTech and Contactless Payments Through the Lens of COVID-19 Times, but they have not sufficiently explored the initiatives taken by M-banking companies like Paytm or say M-banking services by SBI (Public sector) and HDFC, ICICI (Private Sector).

RESEARCH METHODOLOGY

TITLE: - A STUDY ON GROWTH OF MOBILE BANKING IN INDIA DURING COVID -19

SCOPE OF THE STUDY:

Scope of the study is limited to the customers of mobile banking services in India during Covid-19. The study is confined to a period from March 2020 to September 2020 and its impact on Mobile Banking Services.

RESEARCH OBJECTIVES: -

- 1) To study the effect of Covid-19 on the mobile banking services
- 2) To understand the shift from physical banking transactions to mobile banking transactions during Covid-19
- 3) To study how m-banking can promote social distancing policies

RESEARCH QUESTION

- 1) How effectively has mobile banking grown during COVID -19?

RESEARCH MOTIVATION

We were highly motivated to find the outcome of this research as we could now understand how Covid-19 had transformed the banking nature & its infrastructure. The whole research gave us an insight so as to how the customers were adopting towards mobile banking services to follow the social distancing norms as well as make their obligatory payments without holding back from the fear of the deadly virus.

METHODS OF DATA COLLECTION

Secondary Data collection was done

SOURCES OF DATA

Secondary data have been collected through online articles on livemint, economic times, RBI reports, journals, newspapers etc. to review the literatures and understand theoretical backdrop of mobile banking in India, both Pre COVID-19 and During Covid-19.

DURATION OF THE STUDY

The study duration is the time taken to complete data collection or it takes account the time Since inception of protocol or design of study to end of data collection. The duration of the Study was from July, 2020 to September, 2020.

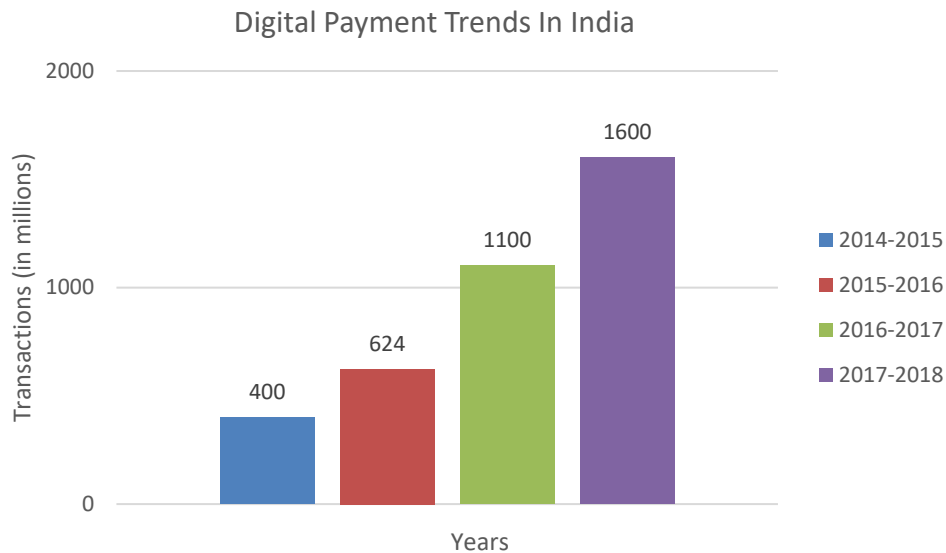
DATA ANALYSIS

The Effect of Demonetization on Mobile Banking

Demonetization is considered to be the biggest catalyst for mobile banking in India. On 8th November 2016, the Government of India had announced the demonetization of all Rs 500 and Rs 1000 banknotes, according to this the 500 and 1000 bank notes could no longer be used as a legal tender. There was a limit set on the cash withdrawals and people were restricted to withdraw only Rs20,000 per week from their accounts. A lot of hardships were faced by the common people as there was no liquidity in the economy due to which people couldn't use physical cash to make transactions. They had to stand in long queues for withdrawing the new RS 2000 note from the banks. The acute shortage of cash was making it very difficult for the middleman to survive & this was the time when the Government of India

felt that it was the need of the hour to boost the mobile banking sector in India in order to tackle the issue of acute shortage of cash.

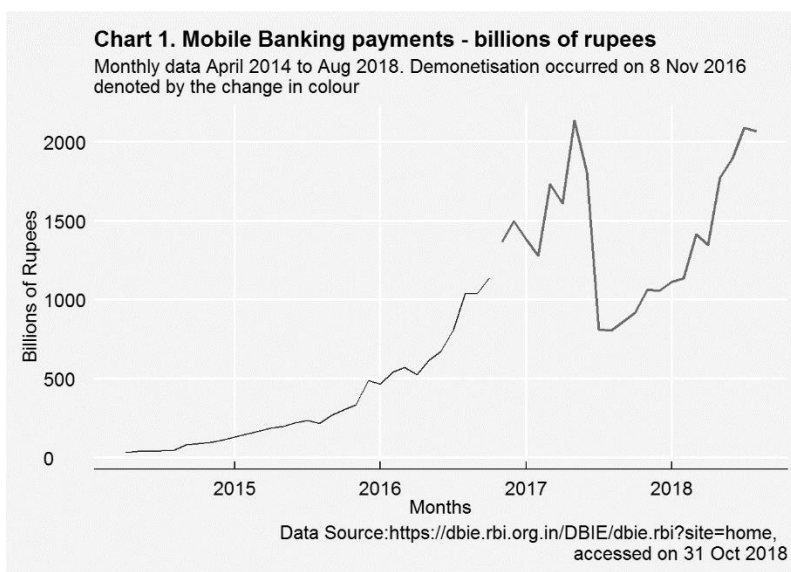
Digital Payment Trends in India



Source: Media Reports

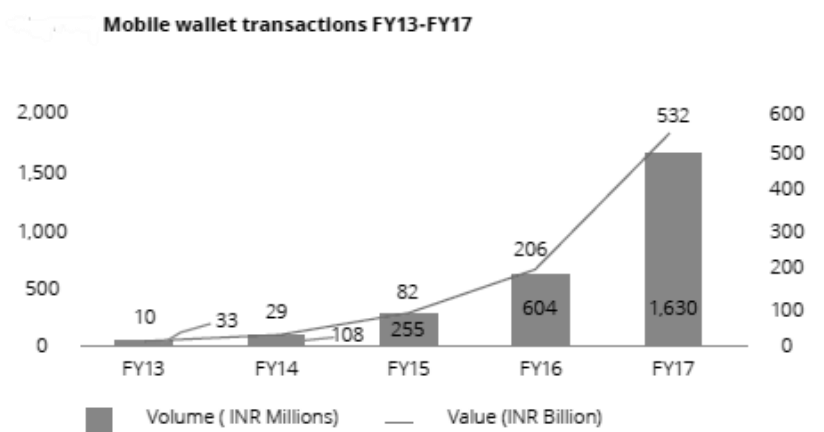
www.bjp.org

It is believed that one of demonetization's stated intention was to bring a push in the digital payments. It was indeed a good move by the Government of India as in the first few months of the demonetization phase (up to August, FY 2016-2017), digital payments showed a large rush in the volume of transactions as compared to the transactions in the previous corresponding year. It can be observed that there has been a rise in the digital payments from nearly 624 million transactions in 2015-16 to approximately 1100 transactions post demonetization. For a country like India where survival was through primary cash, took a lot of time to adapt to the digital payment systems and hence the pre demonetization phase witnessed slow growth in the digital payments. Demonetization was an exclusive move to push the growth in the digital payments, thus attempting to make India a cashless economy.



The mobile banking volume jumped from 524mn transactions to 1048mn transactions in the period (Nov-Aug of 2016-2017). The value of mobile banking transactions, rose up from ₹2,700 crore in September 2015 to ₹104,300 crore in 2016, and to ₹186,200 crore in 2017(Hindu Business Line)

The collaboration of the new technologies with the traditional banking has proved to be a winning situation for the financial systems. Mobile wallets like Paytm took the maximum advantage of demonetization to facilitate the customers in making small number of payments like hiring cabs, booking movie tickets, payment of utility bills etc. The demonetization moves encouraged the adoption of digital payments through mobile banking and also provided ample opportunities to startups like Paytm, Mobikwik etc.



Source: Reserve Bank of India data; Deloitte Analysis

As per the above graph, it is evident enough that even though mobile banking was introduced much before the demonetization move in India, the growth in the same was very stagnant. The pre demonetization period shows us a minimal growth in the mobile wallet transactions each financial year. There was a minimal growth of 19mn transactions in mobile wallet transactions from FY13 to FY14. But after the launch of Digital India in

2015, with the help of integrated technologies and the internet, mobile wallets slowly started picking up and projected a larger growth in the volume of transactions compared to the corresponding previous year. Further after the announcement of Demonetization in the year 2016, Mobile wallets like Paytm and Phone Pe gained momentum and the growth in the mobile wallet transactions increased ever since.

Paytm became best alternative of cash for the country in times like demonetization. Many Shopkeepers, vegetable vendors, petrol bunks started accepting payments through Mobile wallets like Paytm, Phone Pe etc. Paytm witnessed an increasing trend of 435% in its traffic, 200% growth in the app downloads and a rise of 250% in the overall transactions volume and their value.

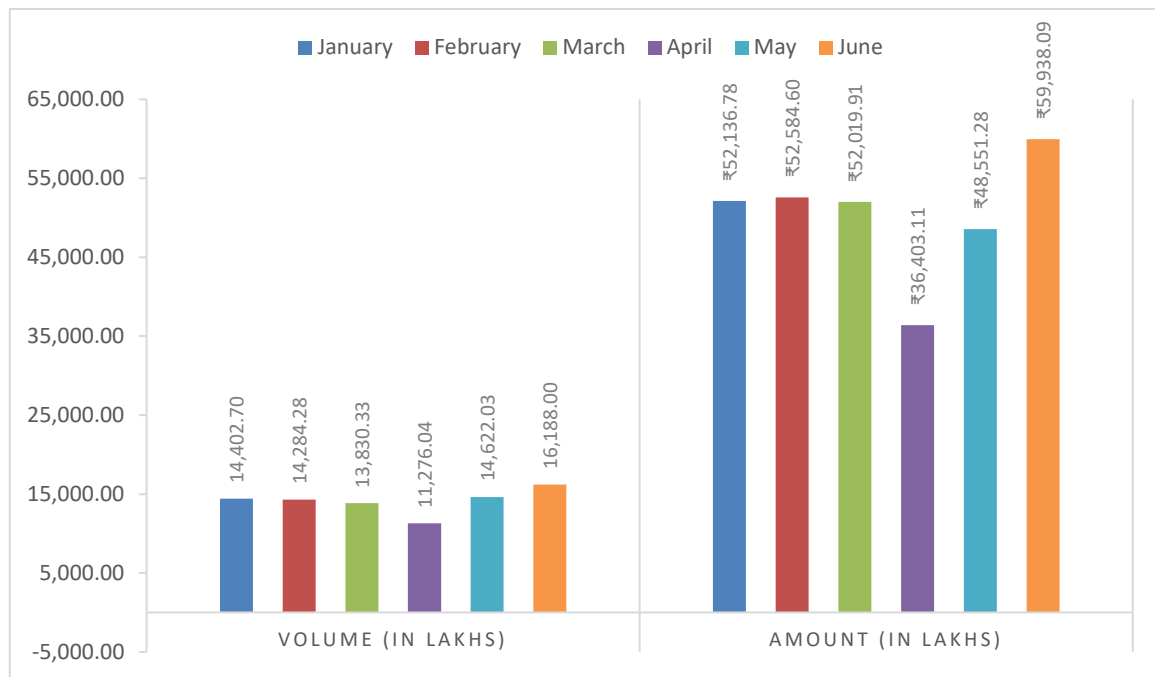
The Effect of COVID-19 on Mobile Banking

M-banking will be the new normal to many industries and businesses after COVID -19. It is very challenging for many countries as it was in 2008 crisis, we need to accept the digital change and innovate the way of transaction with the new M-banking application that emerging Fintech company serves. Banks need to build the trust, create the digital and safe environment for digital banks, make customers aware with the helpful use of it.

Due to shut down there was very less physical transaction done as it was not safe to withdraw money and even for banks to accept deposits. RBI report says, ATMs stood at over 91% of their full capacity which means there was need to refill the cash in 91% of machines. Slowdown in the deposits grew up to 7.98%. According to RBI, 15.5 lakh crore of outstanding debt in the market has been affected, retail and wholesale trading were halt, more than 19 Sectors were affected. Top five affected sector were port and services, aviation, construction, mining and mineral, retailing done by corporate all sectors affect banking at very high rate.

We are living in a digital world and India being a developing country here banks had a very advantage of promoting mobile banking, although India is having online banking internet infrastructure since very long but it was adopted by majority of customers that bank managed with them. Banks are now supporting customers guiding them personally for their needs. Many people who were reluctant to move to mobile banking application are now considering the shift as an easy mode. Mr. Niraj Mittal says, there has more 29% more transaction in Q1 2020 from Q1 2019 as corporate and retailer have higher issuance rate from bank accounts to mobile wallets.

Developing countries like India are very beneficial as more and more Fintech company are investing in banks and with the help of their internet infrastructure and technology banks will be able to serve customers with better facility and more secured transactions. In this new normal period, we are experiencing a new network environment where everything is available on our fingertips. We are seeing much faster and reliable transaction pattern. Mobile banking has brought a very significant increase in number of users after lockdown as mobile application has been more customized and made more user friendly like Paytm, Yono (SBI), PayZapp and many more.

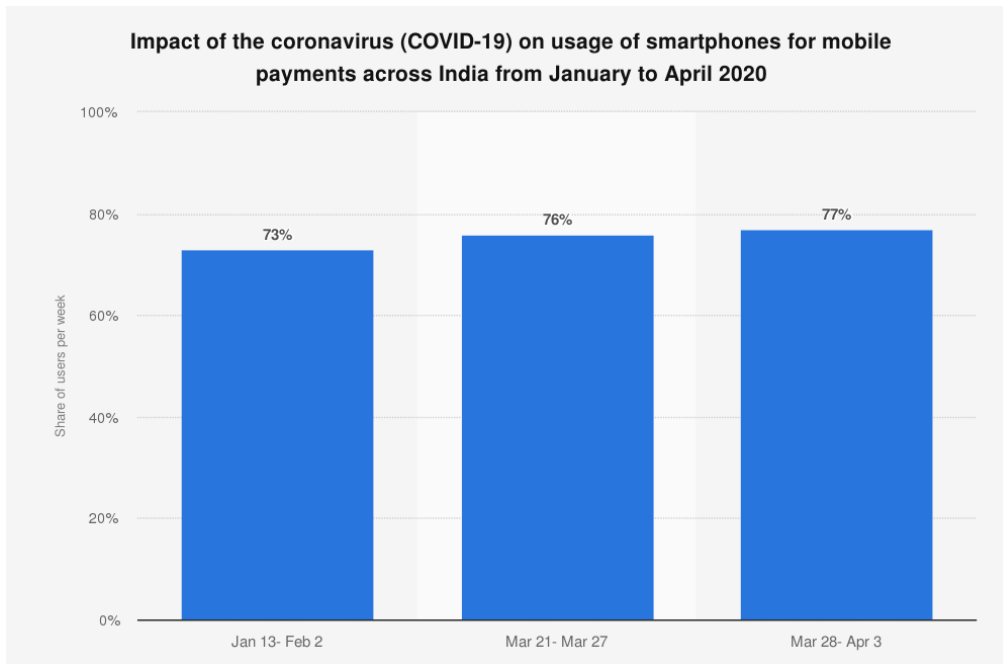


(RBI, 2016) Source: <https://www.rbi.org.in/scripts/NEFTView.aspx>

M-banking volume of transactions in Jan 2020 was 14,402.70 lakh and in June it shot up to 16,188 lakh volume of transaction. (Source: RBI Combining all 354 banks of India recognized by RBI of Public and Private sector)

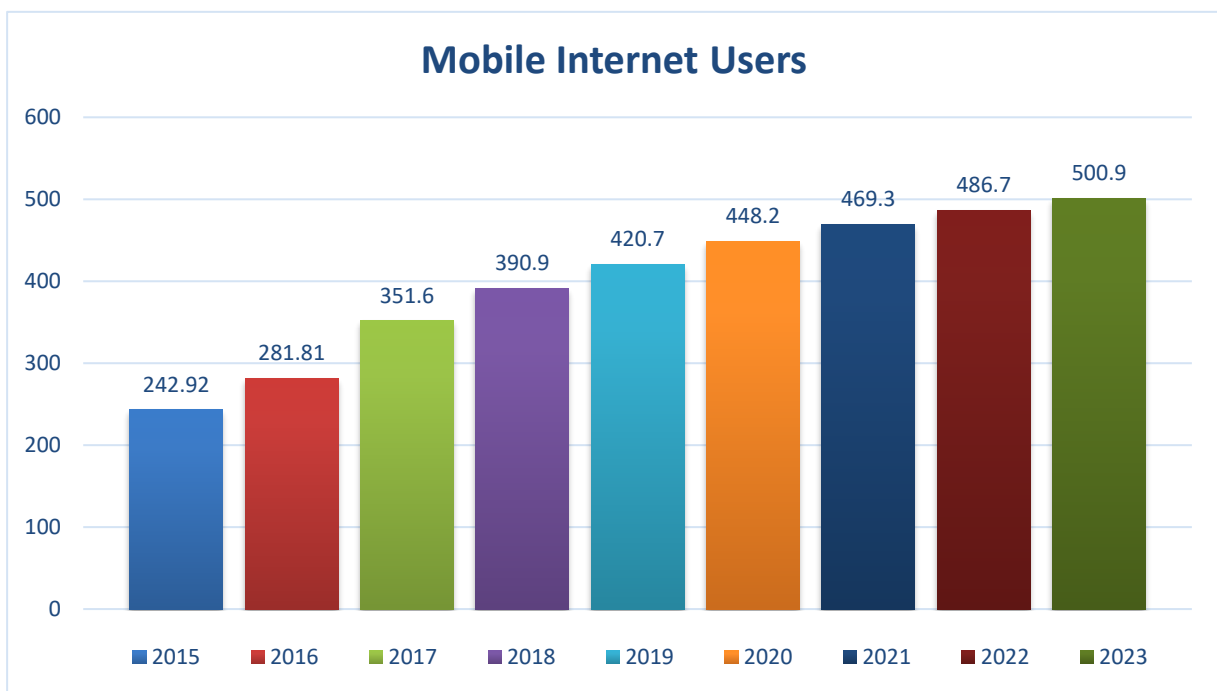
This figure shows is that there is an increase in amount of Rs.7801.31 lakhs from pre-COVID and during COVID which is June 2020.

A report from PWC predicts that, the overall conversion rate of customer from offline to online will increase at greater speed. The acquiring of money will 100% happen through payment gateways and companies like Razor pay and Paypal will offer to tie up small stores to increase their volume of transaction, as all the daily necessity transaction are only happening online with help of m-banks. It will also help to build more stronger payment infrastructure that is more secured and reliable in means of transfer and transaction. UPI, IMPS and BBPS has shown more than 50% increase in number of transactions. M- banking has made our lives easier to meet our daily requirement and for MSME immediate fund transfers in just a matter of 5 minutes.



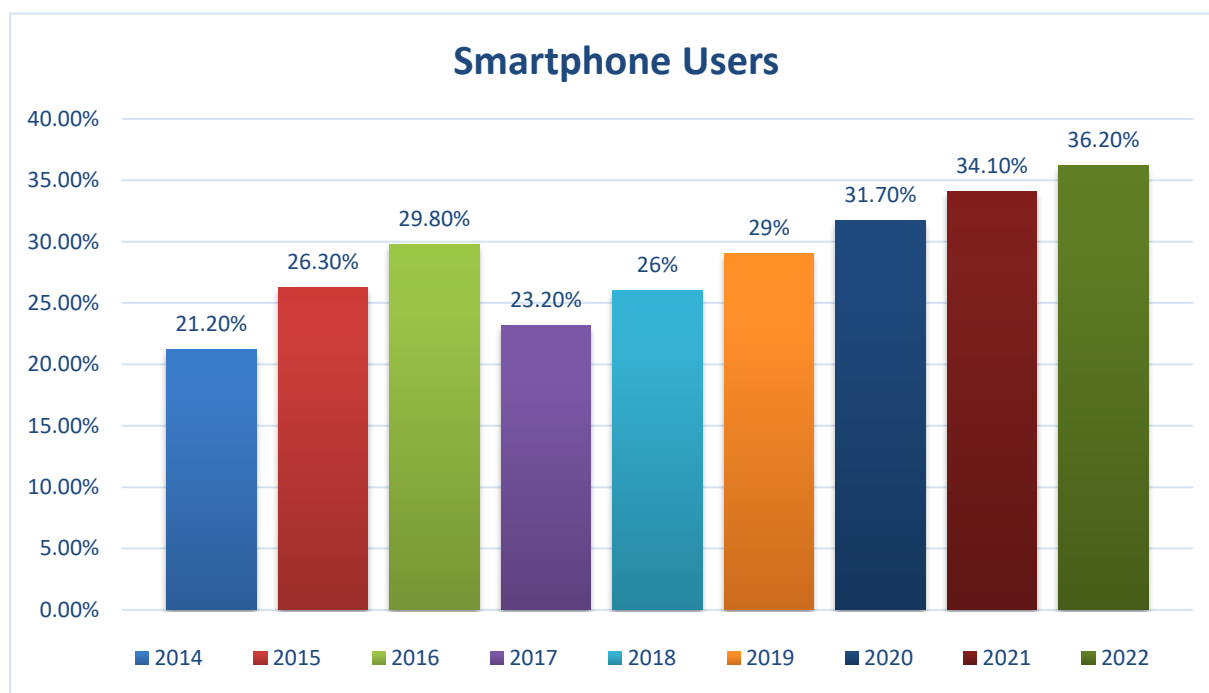
From the

above graph we can infer that there has been an increase of 4% in duration of 4 months i.e. January to April. The major reason after lockdown in March as it shows in just span of 1 Week 1% users have enrolled themselves to online payment platform.



(Keelery, 2020) India is the second largest base for internet users. From the above graph we can depict that from 2015 the number of users having mobile internet is increasing at 16% in

the year 2015-16 and so on in further years. This graph also tells us the estimate of users in



the year 2021-2023.

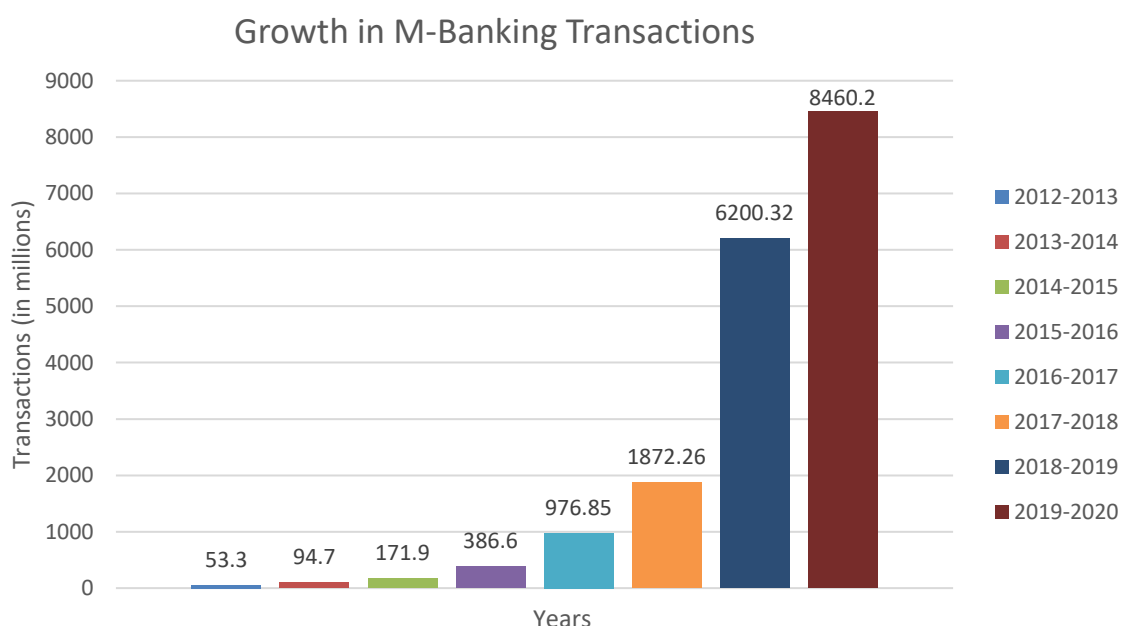
(Asher, 2020) According to a report by MCKinsey, there will be 40% increase in the internet mobile users. We can say more and more of internet user are using internet and making use of mobile internet to use various facilities like, m-banking, social media, utility tools and many more. Reports by Economics time suggests that inspite of rising cost of internet people are meant to opt for it as a basic necessity now a days. They say that subscribers to internet will be 835 Million by end of year 2023. Mobile internet usage is increasing at a rate of 152% per annum. The government promoting Jan Dhan Yojana is a mass financial inclusion programme due to which the number of banking accounts have doubled in numbers after 2011 and around 80% of the banks were opened using smart phone and mobile internet. **(Source: Statista)**

India is a country of vast population, there are many smartphone companies. Smartphones have widely offered various application for mobile banking and facilitating other digital services including education, healthcare, financial daily book keeping and many more. The digital services on smartphones covering various sectors has been very user friendly and rapidly increasing its reach. According to the report by Economics times Digital banking services has been playing a very crucial role in response to COVID 19. Studies say that both rural and urban unfortunately spend (25 – 26%) same amount of their budget on smartphones and to opt it services. World's Largest Digital Literacy Programs are run by Indian organization which led people to adapt new technology. Programs like **Pradhan Mantri Grameen Digital Saksharta Abhiyan** (PGMDISHA) and E-Kranti have been promoted with great initiative under the umbrella of Digital India which provides, M-banking, Digital Agriculture, Healthcare, Education,

Passport and various other services through smartphones. This effort has increased the number of smart phone base in India after launch of Digital India Programme.

According to a report of Gadget 360 NDTV (Studio, 2020), there has been 15% increase in the smartphones market after 2018. A study of **techARCh**, states that in December 2019 almost 77% of Indian were having smartphones and they are using all the wireless services. There are top brands acquiring 25 to 41% of market by offering different range of smartphones from budget phone to luxury phone brands. Factors like good quality, budget friendly and new features attract the customer a lot.

Growth of Mobile Banking in India



Source: RBI

According to the above data from RBI Reports, it can be observed that the growth in the number of mobile banking transactions in the years 2012-2014 have been very minimal. But after the launch of the Digital India program in the year 2015, there was a sudden increase in the number of transactions i.e., 386.6mn in 2015-2016, almost double than that of the previous year i.e., 171.9mn transactions in 2014-2015. Later in the year 2016-2017 mobile banking transactions grew from 386.6mn transactions in 2015-16 to 976.85mn transactions. The post demonetization period has shown increasing trends in the number of mobile banking transactions when compared to the pre demonetization period. It is believed that demonetization was one of the catalysts for mobile banking in India. Followed by the COVID-19 pandemic in India, Mobile Banking transactions in the month of Jan 2020 were 14,402.70 lakh (1440.27 mn) and in June it shot up to 16,188 lakh volume of transaction. The total number of transactions from Jan 2020 to June 2020 were 84602 lakhs (8460.2mn) (Source: RBI Combining all 354 banks of India recognized by RBI of Public and Private sector). Hence COVID-19 is considered as one of

the largest catalysts after demonetization to promote the adoption of mobile banking in India.

CONCLUSION

Mobile banking has completely revolutionized the banking infrastructure in India. It was introduced in the early 21st century with limited operations, but over the years with the advancements in the fields of information and technology, mobile banking is now emerging as a new normal in the banking infrastructure. Mobile banking has been successful in catering to the needs of the customers with minimal drawbacks and has provided them with customer satisfaction. Factors such as increasing penetration in the smartphone and internet users, Ease of accessibility, Convenience & security in conducting digital transactions have proven to be the building blocks for the promotion of mobile banking services in India. For countries like India, Mobile banking can be used as a great opportunity to develop the banking infrastructure as 34.33% of its population is constituted of the younger generation who are well versed with using the digital payment platforms such as mobile banking & e-wallets. Smartphone & Internet Penetration is regarded as a backbone for the mobile banking in India. It is projected that the internet subscribers will reach 835 Million by end of year 2023 which also means that the mobile internet usage is increasing by nearly 152% per annum Being the second largest smartphone market in Asia, India has a huge potential for adopting mobile banking as internet enabled smartphones have proven to be very efficient in conducting safe virtual banking transactions. Various initiatives of the government Such as **Pradhan Mantri Grameen Digital Saksharta Abhiyan** (PGMDISHA) and E-Kranti under the Digital India Program have doubled the number of bank accounts opened using smartphones.

COVID-19 Pandemic has wrecked the economy and affected the Export Import services, aviation industry, construction industry, mining and mineral industry, & the retail industry of all the corporate sectors which have further affected the banking infrastructure very drastically due to the nationwide lockdown. The pandemic has also created fear in the minds of the people as it is believed that the currency notes could transmit the deadly virus. This created greater difficulties for the common man to conduct transactions. Mobile banking has been very helpful in the times like COVID-19 as it has been successful in promoting the social distancing policies as well as providing 24/7 banking facilities to their customers. COVID-19 is the second catalyst after demonetization which has increased the shift of the banking customers from the traditional/ physical banking to digital platforms like mobile banking and mobile wallets. The Study has found out that that there was an increase of 4% in the shift of the people to online payment platforms from Jan 2020 to April 2020. Mobile banking applications such as Google Pay, ICICI imobile, SBI Yono & mobile wallets such as Paytm have seen a greater percentage of increase in the number of transactions. The Mobile banking transactions have increased by 2439.88millions in 2019-2020 (Jan 2020 to June 2020) from 6200.32mn in 2018-2019 (RBI). COVID-19 has prepared the Indian banking infrastructure to continue its operations through mobile & online banking services. This will also insure the banks against any further unprecedented pandemics and lockdowns as well as help them to maintain its overhead costs.

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