

# A Study on the Impact of Covid-19 in Accelerating Digital Payment Services in India

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**Abstract:** COVID-19 has been a serious health disease due to which the whole globe was declared as pandemic and shuts all business through implementing worldwide lockdown by governments of every nation in order to safeguard health's and lives of common people suffering to which numerous individuals lost their existence. The global pandemic has increased use of digital payments less use of cash payments in circulation. Although there was an increase in usage of digital services but this pandemic wave has encouraged people from towns and villages to use them in their routine and this study shows that there will be a continuous increase in adoption and use of digital payment applications as people are now getting aware in India.

**Keywords:** Covid-19, Demonetization, Digital payments, E-banking, UPI

## I. INTRODUCTION

The model of digital payment refers to a system of making payment for certain sum of amount through using mobile application or website round the clock across the globe. These involve direct transfer of money from debtor's bank account to creditor's bank account without having any physical transaction between parties. Government of every nation contributes its efforts in promoting digital payments services regularly which is backed by several benefits. The concept of digital payment has taken birth last decade but is now trending with faster pace especially in towns and villages of India after the happening of world-wide pandemic that is COVID-19 which has taken all economies to face set back due to regulation of full lockdown.

The digital payment system started in India in the year 2016 though launch of Digital India Mission encouraging Indian businessman's as well as country people adopting digital technology in their life in order to strength country's economy through paperless, Faceless and cashless transactions. In year 2020 when country faced huge negative impact due to corona virus every second person has started making payments for purchase of their essentials through digital move by avoiding cash payments in order to safeguard themselves from any kind of contact with another person whether a person from city, town or even villages. Digital payment can be made either by installing mobile banking application or by any third party app such as Amazon Pay, BHIM app, Google Pay, Phone Pay, Paytm and a number of others where both the parties such as payer as well as payee are required to link their bank account with payment application in order to place transaction or needs to deposit amount on their digital wallet of installed application. COVID-19 had an adverse effect on most of the industries world-wide such as retail, fashion, hospitality, airlines, travel, tourism and several others. On the other hand the global pandemic has increased use of digital payments in few sectors such as buying groceries and medicines online, subscribing OTT (over-the-top) channels for latest movies or web series with a compliance of governmental rule for maintaining social distance and less use of cash payments in circulation. Many shopkeepers in order to make their cashless sales have adopted a means of digital payment which allowed them to accept and make various transactions through different applications. Not only there are third party applications but some of the e-commerce websites such as Amazon or messenger applications like WhatsApp have also started offering digital payment services to general public.

The concept of digital payment services has provided never-ending benefits to public in having easy as well as frequent payments and also acts as a necessity after the happening of COVID-19. The first and foremost advantage of making transactions through digital services is that it assists society in maintaining social distance and safeguards their life from any kind of contact with infection or viruses. Making payments through applications encourages people through availing some cash backs or shopping vouchers that motivated them to make more use of such digital payment service applications and make their payments. In the areas of towns or villages where buying and selling necessities through cash was very difficult, digital payment helped sellers to make their sales and experience increase due to acceptance of digital payments directly into their bank accounts, this also reduced their stress for depositing money into bank at the time when even banks were closed. Digital payments helps public in making their dues clear even from distant places or helping their peer members when they are in need, digital payment does not take into consideration the location or place of payer as well as of payee. It was very helpful for using digital payments in order to make payments of their utilities such as electricity bill payment, fuel, and school or college fees, home rents and even helped a lot in having regular investments.

## **II. VARIOUS DIGITAL PAYMENTS APPS**

### **Google Pay (Tez):**

Google Pay is a digital wallet platform and online payment system developed by Google to power in-app, online, and in-person contactless purchases on mobile devices, enabling users to make payments with Android phones, tablets, or watches. This application was being launched by Google Incorporation launched in year 2015. Google pay is most commonly used digital payment application that is easily available on android or iOS operating systems. An individual can transfer money or pay its utility bills either directly from their bank account by having Unified Payment interface (UPI) id that can be created only after installing Google Pay application. The app offers dual security to its users as well as securing through their fingerprints which makes them stress free from any kind of theft or losing their secret credentials. It can be used by small shopkeepers, wholesalers or even large business organisations to make or receive their payments. As of date the application has more than 100 million users out of which more than 67 million are solely from India making transactions higher than \$110 billion every year.

### **Paytm:**

Paytm is an Indian digital payments and financial services company, based in Noida. It was founded in 2010 by Vijay Shekhar Sharma under One97 Communications. The concept of Paytm came into existence in year 2010 as a private business operating firm. The application has a specialization in areas of e-commerce, financial technology as well as digital wallets. It is a widely accepted application that offers its services in 11 different languages of India with an aim that can be easily understood by every citizen of country. Other than serving facility of making and receiving payments, the application also fulfils several needs of its customers such as by its Paytm mall, Gamepind, Paytm money, Paytm smart retail and Paytm Payments bank. As of date the application is having more than 350 million users who are active to its services and considers application for their use generating net income of more than 360 million each year.

### **PhonePe:**

**PhonePe** is an Indian digital payments and financial technology company headquartered in Bengaluru, Karnataka, India, launched in year 2015 as a private owned multilingual mobile and computer based application. The company has its headquarter in Bangalore city in Karnataka region of India. PhonePe is a unified payment interface (UPI) based app where a user is required to link his or her bank account and generate a UPI id to make any kind of transaction or paying utility bills. Like Paytm the app is also available in 11 languages for users from India. As of date the application is having more than 280 million customers who use services of PhonePe. In the year 2020 January the company has launched ATM service for its users under the name "PhonePe ATM". It generates revenue more than \$60 million each year.

### **Internet Banking:**

Internet banking, also known as online banking, e-banking or virtual banking, is an electronic payment system that enables customers of a bank or other financial institution to conduct a range of financial transactions through the financial institution's website. A bank account holder can avail services through internet banking either by installing mobile application or by direct visit on its official website from bank account of one party to another. This offers various kinds of corporate as well as personal banking assistance in a form of money transfer, having a look towards transactions which recently made, generating statements, paying bills for utilities and several others. The application provides dual security to its users so to remain stress free from security issues and fear. As of date more than 150 million account holders use services through online banking comprising more than 45 million users from urban areas of India.

## **III. REVIEW OF LITERATURE**

**Singhal Rashi (2021)** has quoted in the paper entitled "Impact and Importance of Digital Payment in India" that services offered by banks in digital form provides various opportunities to the banks when it comes to the benefit of their customers. The shoppers have a great impression along with a worthwhile effect upon the use of digital payments services. As one of the largest providers of financial and monetary services in our smart cities and the bush of rural areas, business banks provide inimitable services to their potential customers.

She has founded that RBI and Indian government has brought up some noticeable acceptances with an entry of a mode such as non-financial system of deferred payments. The regular improvement in transmission of media as well as innovation has provided stimulation to voluntary framework of computerized installments. Further she also mentioned about various governmental activities such as demonetization or GST which is contributing to the economic expansion along with spreading of net for high expenses.

**Vally Suma and Divya Hema (2018):** mentioned in their study on “digital payments in India with perspective of consumer adoption” that digital payments services got hike after the happening of demonetization which gave rise to use of BHIM and UPI applications with a presence of full transparency. The researches have conducted a primary survey for 183 people from Hyderabad region of India and analysed their data through application of a technique that is Chi-square. They founded that technological deployment in case of digital payments has raised banking performances that is competent to attain objective of cash less economy. Additional, they analyzed that banks are required to bring some measures that are effective in order to create awareness while using security or technology.

**Pal and et. al., (2018):** quoted in their present report “Digital Payments and discontents: street shops and the Indian government’s push for cashless transactions” mentioned that adoption of digital payment services solely depends upon certain factors such as transaction scope, form of goods sold, some personal aspects that are specific to enterprise owners upon familiarity of use as well as comfort.

They measured environmental force towards adoption of technology against trust, practices as well as transactional control. In their research they founded that there is a need of imparting high technology to have modernity in digital payments with regular initiatives instead of experiencing productivity which is present in today’s scenario of digital payments. The researchers have interviewed 238 different vendors for successful conduct of their research and applied certain techniques of coding in order to get accurate results for the data. It was found that shopkeepers have adopted method of digital payments after facing happening of demonetization but later started conducting their business more with cash payments as soon when new currency notes came into circulation.

**Balaji and Vijaykumar (2018):** analysed the concept of “Diffusion of Digital payment system in Rural India” and mentioned the significance of cashless country in context to Southern Indian economy through application of a specific research tool that is Structural Equation Modelling. The researchers have collected some data from people who belong to rural areas of South India and founded that there are some people who are still unaware about the economy which is moving towards cashless country and were very much reactive while mentioning for their responses. On the other hand they founded that digitalization is now a priority of survival, the economy of digitalization has a significance impact on social lives of people. The adoption of digital payment services by rural community will enhance south India and contributes in installing computerized systems in areas.

**Chavda (2018):** mentioned in his study of “An Empirical study on factors affecting consumer adoption of mobile payments in rural area” mentioned that using of digital payment services by rural people in India was very rare in fact was a fluke only. There are several reasons that gave a boost to adoption of mobile payments such as digital India, demonetization and growth in smart phones and internet use in India. In some cases political and social trends have also contributed rural sectors in using digital payments. From their analysis they founded that people from rural areas find it difficult in using mobile payments due to lack of enough knowledge and technology, infrastructure, poor facility and several other factors is continuously knocking the door of challenges to rural people.

**Thirupathi, Vinayagamoorthi and Mathiraj (2019):** studied the concept of “Effect of Cashless Payment Methods: A case study perspective analysis” and quoted that several financial institutions and banks are getting interlinked with a system of digital payments by every day. This linkage assists Indian government in attaining economic prosperity and growth which can be seen due to effect of demonetization. They analyzed that there is a presence of electronic payment only lesser than 5% of total and near about 26 per cent of the population has an access to internet.

They further found that in order to increase habit of digital payments banks are now offering certain discounts to their customers if they make payments through their debit or credit cards along with an attractive offers via payments through digital wallets. Making transactions via electronic mode has made country people comfortable through having paperless proceedings. It was also quoted by them that now-a-days banks are making highest investments in area of mobile payment systems along with paying emphasis towards various initiatives in case of IT such as online and mobile banking.

**Srivastava (2018):** studied the concept of “Digital financial services: Challenges and prospects for liberalized and globalized Indian economy” the objective of this study is to elaborate services of finance via digital mode in globalised and liberalized economy of India, to anticipate digital services for general people in cashless country and the last objective is to put light on some challenges of digital services in context to India.

The researcher has developed hypothesis test for data collected and founded that trend of digital services will have continuous and positive growth with its regular innovation that might dominate Indian payment scenario. It was being

observed by him that there is a most crucial challenge in Indian system that is of less literacy level in relation to digitalization, in appropriate internet access, less availability of infrastructure related to banks and unorganized market for rural people can bring hurdle in growth of digital services within country.

**Tiwari and Iyer (2018):** quoted in their study of “Adoption of Digital Wallets by Petty Vendors Post Demonetisation in India: A Prediction Approach” that the happening of demonetization has given a large hit to the markets of India especially to small shopkeepers. The researchers have analyzed the purchasing as well as demographic attitudes of 223 different small vendors from two cities of India. They analysed several challenges and benefits that are being faced by such vendors during adoption of digital payment methods. It was found that there has been a significant shift in markets of India in both segments that is unorganized and organized sectors.

There were some small shopkeepers who faced huge hit and are required to shift towards adoption of digital payments whereas due to less knowledge about technology and its usage affected livelihoods of many vendors. It is being recommended by them that a government should enhance awareness about educating people towards technology and digital payments so that these vendors can feel comfortable in adopting digital payment services into their business. There were some vendors who were open to adopt digital services and switched their payment mode in order to bring stability in their sales.

**Adarsh and et. al., (2018):** mentioned in their study of Transformation towards E-wallet payments Systems pertaining to Indian Youth” that there are approximately 80.5 crores users for digital wallet alone in India and the major group who uses such service is youth. The researches has paid focus towards students of Indian colleges and conducted a survey through asking various questions so to analyse the impact of digital payments after the happening of demonetization on daily expenses of students. They founded that approximately two-third of youth use to have mobile recharges, ticket bookings from online mode due to its less time consuming and easy to make transactions. They also analyzed that various cash backs, loyalty or points redeem offers attracts them to make digital payments and avail best offers out of them.

**Jain, Sarupria and Kothari (2020):** studied “the Impact of COVID-19 on E-wallet’s payments in Indian economy” and analysed that happening of COVID-19 has brought a great boost for the Indian economy especially for the sectors like food and beverages, entertainment and others. The services of digital payments have seen huge growth that is from 5 per cent to 30 per cent after the happening of demonetisation also with continuous efforts of government towards economy. There is a big contribution by entertainment and hospitality industry which is approximately 40 per cent to the economy which is helping for growth.

#### **IV. RESEARCH METHODOLOGY**

In the present research, the researcher has used secondary data in order to conduct a successful study on Impact of COVID-19 on Digital Payment Services at towns and Villages. The data has been studied and collected from secondary research such as previously published articles, journals and government published sources.

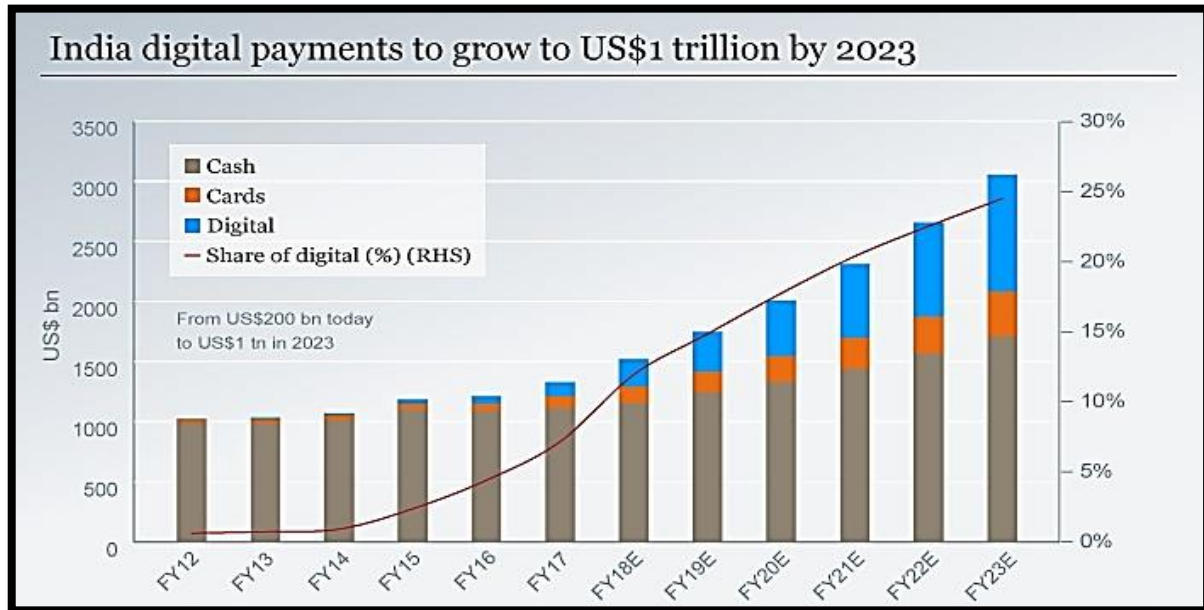
#### **LIMITATION OF THE STUDY**

It is possible that some or many people are not aware about digital payment as they may do not use android mobile phone or computer. The present study was conducted on the basis of some secondary data which might be fabricated in order to generate effective conclusion. The present report has several limitations such as the research is based upon secondary resources which can be further improved by use of primary data collection through first hand survey. However, the purpose of the study was to analyse the impact of COVID-19 on adoption of digital payment services.

#### **PAST TRENDS AND FUTURE PROJECTION OF DIGITAL PAYMENTS IN INDIA**

The past trends refers to an analysis of previous years related to digital payments in India and the future projections shows an idea of some upcoming years. In order to have more strong conclusion research has considered some graphs which shows trend of digital payments in India from financial year 2012 to financial year 2023.

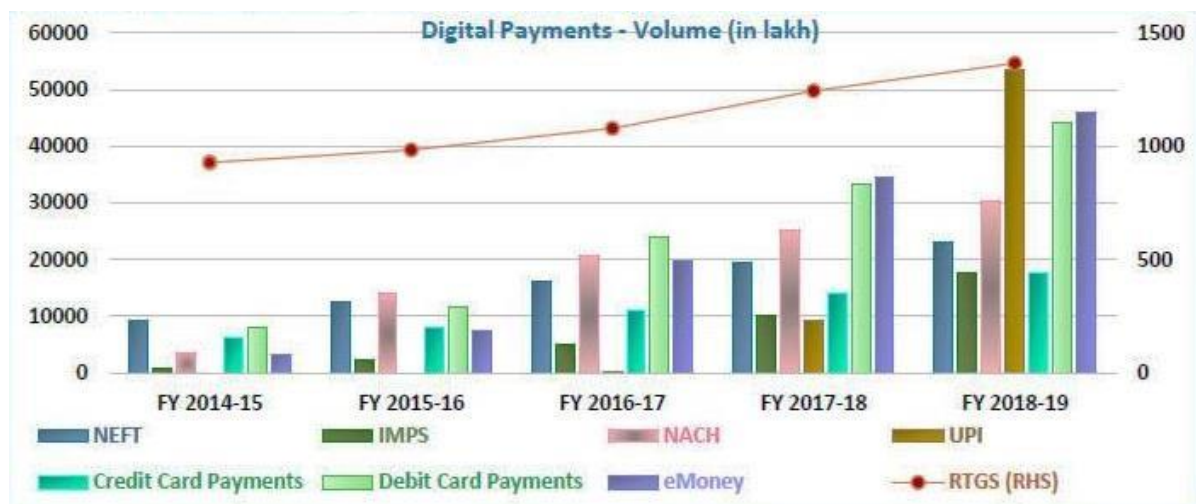




Source: RBI, CME, Credit Suisse estimates 05.04.2018

**Figure 1: Indian Digital Payments growth trend**

The figure 1 shows trend of India's digital payment which is predicted to grow by US\$1 trillion by the financial year 2023. The graph shows an increasing trend year by year that is in financial year share of digital payment was less than 5 per cent in an economy which increased up-to 15 per cent approximately in financial year 2019 that is before pandemic. In year 2020 the share experienced a growth between 15-20 per cent which has further increased to nearby 20 per cent in current year that is financial year 2021. It is being predicted that by the year 2023 the Indian economy will have approximately 25 per cent of its share which will lead to US\$1 trillion. The graph shows that the use of digital payments is continuously increasing by each year along with an growing trend in use of debit or credit cards.

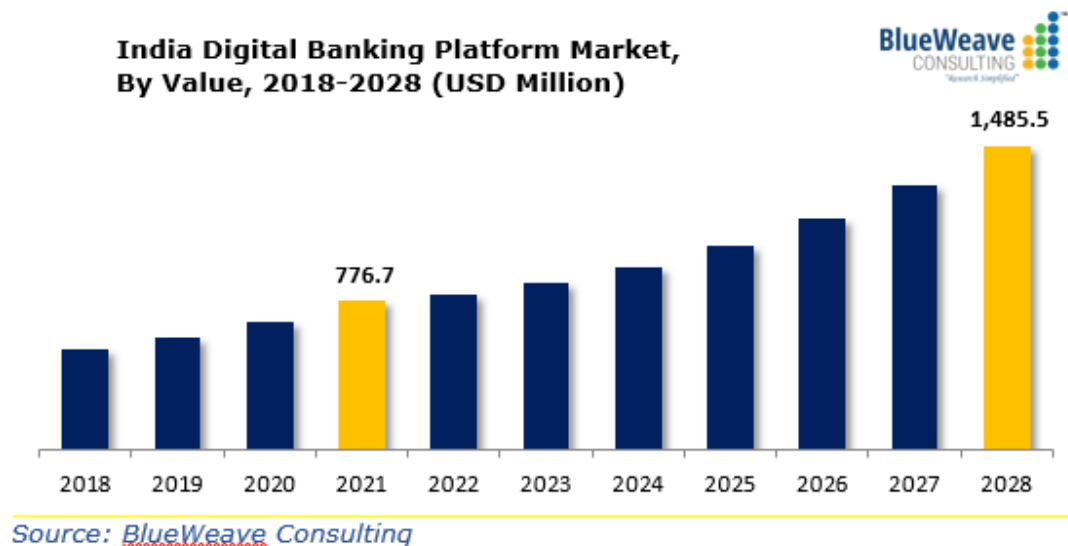


**Figure 2: Different digital payments volume graph**

Source: RBI publications 24.02.2020

The figure 2 shows use of various digital payments systems within India depicting NEFT, Credit card payments, IMPS, Debit card payments, NACH, eMoney, UPI and RTGS for the year 2014 to 2019 that is before pandemic. The graph shows that the use of different digital payment services/systems in financial year 2014-15 was below 10,000 units especially

UPI payments were not present but year by year when Indian people started enhancing their awareness about digital payments along with an use of banking services such as NEFT, RTGS there is an increase in use of eMoney and UPI payments. It can be seen that by the financial year 2018-19 there is a high increment in use of UPI id's that is by more than 5000 people resulting into 1300 lakhs transactions, the highest digital payment system among all. Although each digital payment system is showing a continuous growth by every year but UPI is at the top of all which means that people are more using digital payment applications such as Paytm, Google Pay, Phonepe and several others.



## V. DISCUSSION AND FINDINGS

Digital payments are a source of sending and receiving monetary payments in economy which acts as an economic booster as this encourages money flow with more ease. Digital payment applications allow an individual to make their transaction happen round the clock across the world without making their pockets heavy. There was an use of digital payment services post pandemic by Indian people such as businessman's as well as by households but the wave of Covid-19 has increased the use of digital applications in economy especially at towns and village level. Now-a-days most of the small businessman's, shopkeepers even those who earn their livelihood through selling of their items using hand carts or hawkers. Every citizen is now conscious about their health and safety hence prefers digital transaction instead of cash payments. Having trade through digital applications is much safer than physical exchange of money which involves touch to notes by numerous hands in circular. The people at towns and villages carry their QR code of their digital wallet at their shops or on their carts which makes easy to pay the amount of money in exchange of items purchased or services consumed.

On the other hand attracts more customers to pay right from their bank accounts or digital wallets while making any kind of purchase not having stress of cash crunch in market. For small businessman's digital payment simultaneously acts as a direct deposit into their bank accounts by not standing in a long queue at deposit desk in bank which saves their time and enhances their scope of business. The happening of Covid-19 has enhanced the use of digital money as well as understanding and knowledge about digital payments and its services that towns and village people does not carry before this in ratio what is experienced today. Instead of exchanging cash for their essentials they just make their payment through use of digital payments and small businessman's or shopkeepers are also now able to make the payment of their stock. Before the pandemic it was easy for shopkeepers or hawkers to buy their stock through real time cash payment after which only the wholesaler supplies their items. But now these hand cart users, hawkers or small shopkeepers can acquire their required stock through making payment digitally to their related wholesalers. Although there was an increase in usage of digital services after the happening of demonetization but this pandemic wave has encouraged people from towns and villages to use them in their routine. The present trend shows that there will be a continuous increase in adoption and use of digital payment applications as people are now getting aware and understanding its relevance. Digital services or digital payment applications is a great contributor to the development of Indian economy GDP as well as standards of society who were not much aware before or was facing trade related issues through using cash only in their routine.

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