

# Digital Payment Systems A Way to Protect One Another From Coronavirus

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## **Abstract**

*Every nations in this world is suffering from pandemic of COVID-19. COVID-19 started from Wuhan, China and now it is everywhere in the world. Social distance and hand-wash are two methods to prevent ourselves from this virus. The world is experience lockdown even though we are buying our daily needs and making payment for such items. Cash transfer process requires involvement of our hand to exchange and this process increases chances of spread of COVID-19. This study will explore the various expert's advices and elaborate experiments on the process of spread of corona virus. This paper will also show how digital payment process prevent spread of contagious virus corona. The paper is literature based and findings have been made from secondary sources. The comments of doctors, experts, and scientists have been collected from new articles and websites. The finding of study shows the social distancing is best way to protect each other from COVID-19 and digital payment helps us to maintain social distancing during purchasing.*

**Keywords:** *COVID-19, Digital Payment, Corona Virus, Social Distancing*

## **1. INTRODUCTION**

With the use of internet, wireless communication has emerged and changed the way business is conducting in recent years[1]. This trend allows consumers anywhere and anytime paradigm that shows how powerful internet has been using to offer before[2]. The exchange of goods started with the barter system followed by transaction through cash, credit and debit cards and latest through electronic payment systems[3]. Payments through digital mode in which both the parties- payer and payee use digital platform to send and receive money is Digital Payment System. As stated by Government of India it is "Faceless, Paperless, Cashless" [4]. Digital payment system includes use of Banking Cards, USSD, UPI, Mobile wallets, Point-of-sale, Internet banking, Mobile banking, Micro ATMs.

Amidst the fears associated with the impact of Coronavirus, many countries are being affected including India. Global economy and financial markets have been affected worse with the spread of COVID-19.[4] Countries across the globe are taking numerous measures to combat the impact of Coronavirus outbreak by restricting the movement of people, locking

down cities, maintain social distance, closing public places like malls, cinema halls, tourist places with an appeal to the public to stay indoors.

In India, to reduce social contact and counter concern of the novel coronavirus spreading through currency notes and ATMs, Indian Bank has requested its customers to use Digital Banking Service (DBS). Dr Ellen Foxman from Department of Laboratory Medicine told that COVID-19 is spread through small water droplets released into the air when the infected person coughs or sneezes. Also it is transmitted through the surfaces which we come in contact with in our daily routine and this is the reason asking people not to use traditional method of payments of goods. The National Payments Corporation of India is pushing digital payment methods like UPI, NEFT, mobile banking as a precautionary measure against the coronavirus outbreak. Amazon a leading e-commerce site has stopped accepting cash payments and asked customers to do digital payments. Swiggy and Zomato, the online food delivery apps have also asked its customers to move to digital payments.

Through this study we are going to study about benefits of using digital payments to protect one another from the spread of coronavirus. There is no existence of any model that will help to understand the process of contamination of corona virus. Only, we know that if it is not air born until infected person sneeze in front of another person. But we all know that there are many things which we are buying for our daily use and making payment for such items. If we are using hard cash for payment of such product there is a chance that if either of the person is infected during this exchange process there is high possibility that another person will also get infected as we handover cash with help of our hand and our hands may contain a copy of COVID-19. This study will provide an insight on how we can save ourselves from this pandemic and provide a layout to understand a safety measures while making payment for purchasing.

## **2. LITERATURE REVIEW**

### **a. DIGITAL PAYMENTS**

Digital payment is a mechanism used by individuals and organizations as a convenient and secured way of transaction of over the internet (Slozko&Pello, 2015). Sanghita Roy, Dr.Indrajit Sinha (2014) In India still 90% transactions are cash based. A lot has to be done for the growth and use of E-payment system. Rakesh H M & Ramya T J (2014) in their research paper titled "A Study on Factors Influencing Consumer Adoption of Internet Banking in India" studied the factors that influence internet banking adoption where it was found that internet banking is influenced by its, Perceived ease of use, Perceived usefulness and perceived reliability. (Pathania, 2016) in his article studied about benefits of cashless transactions to nations in increasing their GDP.

### **b. METHODS OF DIGITAL PAYMENTS**

Worthington (1995), "The cashless society" paper discuss about the cashless society where people are moving from clumsy and expensive-to handle coins and notes to efficient payment by cards for the 21<sup>st</sup> century. Natarajan and Manohar (1993) "Credit Cards—an Analysis". A study has been done to know that to what extent the credit cards are operated by the cardholders and the factors influencing the utilization of credit cards. Vora and Gidwani (1993), "Plastic at a premium" shows that credit cards are very useful to people who use it as to increase their purchasing power through plastic card. Different

cards offer the different packages to attract the customers like discounts, insurance coverage and provide reward points etc.

i. Digital wallet payment system

In Digital wallet first of all money is loaded into the wallets with the use of digital wallet apps in our mobile through various online payment methods such as card, internet banking, UPI etc. Some digital wallets available are Freecharge, Paypal, Buddy, Payzapp, Mobikwik, etc.

ii. USSD code payments system

Unstructured Supplementary Service Data (USSD) can be used from basic phone using GSM- based technology. It serves as a linkage between banking financial services and telecommunication. For each bank there is a different dialling code which we have to use while making the transfer of payment.

iii. Internet Banking

It is also known as virtual banking. It is for the services related to banking- transfer of funds, opening of deposits. Login username, password, and transactions password is given by bank to account holders to access their account online and allow to perform financial and non-financial activities.

iv. Mobile Banking

To carry out the transactions related to banking and financial every bank provides its mobile app to its customers. Username and password is provided by bank to perform banking related activities with the help of mobile banking app.

v. UPI

In this platform a Virtual Payment Address (VPA) is used. It is a payment system in which customer holding bank account can transact money through a UPI-based app.

vi. (BHIM) app

Bharat Interface for Money app is a platform which uses UPI application for making transfers. In this multiple bank accounts can be linked and can be used with the mobile number, bank account number.

c. COVID-19

World Health Organization reported about coronavirus disease also known as COVID-19 is an infectious disease caused by a newly discovered virus named coronavirus. People infected with the coronavirus experience respiratory illness, dry cough, high fever. When an infected person coughs or sneezes, its droplets of saliva or discharge from the nose spreads this COVID-19. The best way to mitigate its transmission is to keep yourself well

informed about its causes and how it spreads. Sadly there are no specific vaccines available to cure this deadly disease.

#### d. DIGITAL PAYMENTS AND COVID-19

According to Wall Street Journal Digital-payment services are facing a hike in demand as efforts to control the novel coronavirus pandemic result in housebound shoppers stocking up on groceries, prescription drugs, audiobooks and movies online. According to David Jones (March 24, 2020) Banks have encouraged customers to use mobile banking to avoid exposure to large crowds in the ATMs as through ATM use also people will get infected. According to Financial Express Instead of cash, use of digital transactions is being witnessed as one of the many measures to mitigate the spread of COVID-19. According to National Payment Corporation of India (NPCI), Digital transactions can be made using smartphones as it will reduce social contact.

### 3. METHODS SUGGESTED BY EXPERTS TO PREVENT COVID-19-

S.No.	EXPERTS	SUGGESTION	REASON
1.	(a) WHO (World Health Organization) (b) ICMR	Frequently washing hands	Frequently and thoroughly washing your hands especially with soap helps in kill the viruses from the hands.
2.	(a) WHO (World Health Organization) (b) Caitlin Rivers (Johns Hopkins Centre for Health Security)	social distancing	Maintaining minimum 1-meter distance between the infected person who is sneezing or coughing will prevent from absorbing the liquid droplets from their mouth and nose.
3.	WHO (World Health Organization)	Do not touch eyes, nose and mouth	Avoid touching your eyes, nose and mouth with your hands as hands touch many surfaces which may come in contact with the virus infected surface.
4.	WHO (World Health Organization)	Practice respiratory hygiene	Cover your mouth and nose with your bent elbow or tissue when you cough or sneeze and dispose of the used tissue immediately. It will be a preventive measure to transfer the virus.
5.	WHO (World Health Organization)	Seek medical care if feel fever, cough and difficulty in breathing	Immediately seek a doctor if you have a fever, cough and difficulty in breathing. Try to stay at home.

6.	WHO (World Health Organization)	Keep yourself informed and follow the health care advice	Keep yourself well informed by the trusted sources of information only regarding COVID-19. Follow the advice from the health care also.
7.	DilipAsbe, NPCI MD & CEO	Digital Payments	The use of contactless payments prevents the spread of coronavirus.

#### 4. PROCESS TO PREVENT SPREAD OF CORONA VIRUS

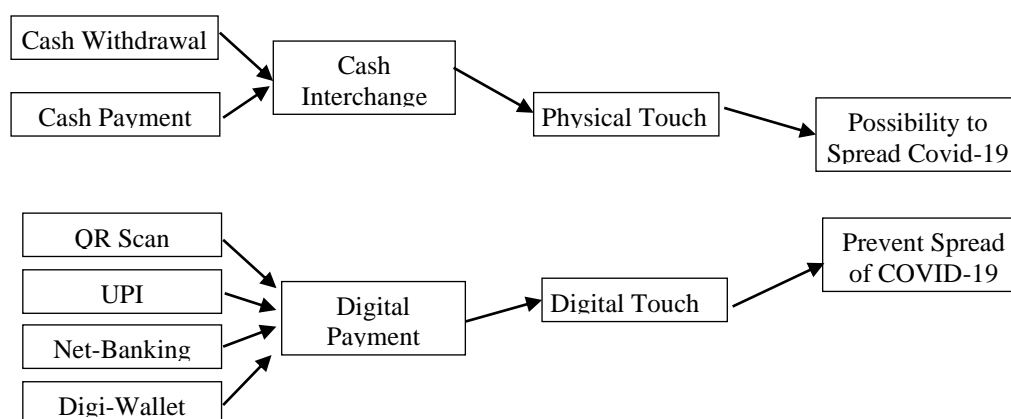


Figure 1: Conceptual Process to Prevent Spread of Corona Virus

The above process shows how COVID-19 spread from one another and how we can prevent to spread COVID-19 from each other. From the laboratory experiments, it has been found that through handshake, sneezing corona virus spread from each other. Cash payment is a payment system where a physical domination of cash is given to another party. If payee is infected from COVID-19 then due to use of hand, it may get transfer to receiver when s/he touch the infected cash. Another, situation may also come where payee and receiver may not able to maintain social distancing. Digital payment methods are very safe way to make payment for purchased item. In this process, there is no physical exchange of hard cash and also easy to maintain social distancing. This method is full proof safe and protect from spread of contagious corona virus.

This framework will help both buyer and sellers to prevent each other from COVID-19. It is also implementable as we are in digital era where every one of us have a smartphone connected with high speed internet.

#### 5. FINDINGS AND DISCUSSIONS

Many experts all around the world have given various preventive measures to combat COVID-19 and in this one of the measures is using Digital payments. It has been found that cash and the ATM surfaces and keypads have germs lingering on them and this is the reason that governments across the globe are educating people through social media for using digital payments instead of traditional payment. In India RBI has urged people to use digital modes like NEFT, IMPS, UPI and Bharat Bill Pay? Paytm and Mobikwik have also asked people to

stay safe by using these apps for transactions to avoid the spread of viral infection. It has also been studied credit and debit cards may not be much better as in some study it has been found that these carry more bacteria than even coins and cash. The researcher pointed out that plastic cards used for making payments like in restaurants may be taken from the person who has virus and this will lead to spread of that virus onto the surface while we swipe the card into the machine and later on spread to another person. One research also suggested that coins are less prone to carry any germs or virus but they aren't still free of it.

## 6. CONCLUSION

Whole humanity is passing through a crucial phase due to ubiquitous spread of COVID-19. Dearth of vaccine to control this virus, the need of the hour is to act pre-emptively so as to save human life. Among numerous measures, digital payment, as it is presumed can substantially mitigate the effects of this deadly disease. The survival of human rests on materialistic needs including food, shelter, etc which can be obtained with the use of cash. The only one way to safeguard ourselves from virus is to take recourse to digital payment. It will empower the consumers to pay for the goods and services without physically handling of currency. Even the keypads of different channels of payments can be accessed without tangency of human organs. Such initiatives into digital payments to a certain extent will minimize the effect of COVID-19.

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