

Research Article

Impact of Covid-19 on Digital Payment System

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Abstract

The coronavirus (COVID-19) has been spread all over the world making bad impact on each sector. But in this pandemic situation digital transaction increased compared to another sector. India is experiencing a growth trajectory in digital payments that is more prolific than many advanced less-cash economies. This paper is a discussion on Impact of Covid-19 on Digital Payment System.

Keywords: Digital payment system, Covid19, Cybersecurity, Digital Fraud, AI

1. Introduction

Electronic payments have their roots in the 1870s, when Western Union debuted the electronic fund transfer (EFT) in 1871. Since then, people have been enamored with the idea of sending money to pay for goods and services without necessarily having to be physically present at the point-of-sale. Technology has been a driving factor in the development of electronic payments. Today, making a purchase is as easy as tapping a button on your smartphone.

From the 1870s until the late 1960s, payments underwent a slow but gradual transformation. In the 1910s, the Federal Reserve of America began using the telegraph to transfer money. In the 1950s, Diner's Club International established itself as the first independent credit card company, soon followed by American Express. In 1959, American Express introduced the world to the first plastic card for electronic payments. Entering the 1970s, people became more reliant on computers as part of the buying process. In 1972, the Automated Clearing House (ACH) was developed to batch process large volumes of transactions. NACHA established operating rules for ACH payments just two years later.

Then along came the Internet. In the 1960s, ARPANET, a precursor to the modern Web, was built as a military network to improve communication. In the 1990s, online internet banking services were offered to bank customers. Those first online payment systems were anything but user-friendly—users had to have specific encryption knowledge and use data transfer protocols.

In 1994, Amazon, one of the pioneers of e-Commerce, was founded, along with a slew of other websites that we know and love to purchase on. Payment acceptance and securing payments has been a specific challenge for e-merchants and payment processors. In the early days of electronic payment processing, you needed special equipment and software to send a payment for goods. Now, payment acceptance can be integrated into websites, mobile platforms, and at the point-of-sale for scalability amongst merchants big and small. [1]

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The Government of India has been taking several measures to promote and encourage digital payments in the country. As part of the 'Digital India' campaign, the government aims to create a 'digitally empowered' economy that is 'Faceless, Paperless, and Cashless'. Digital payment methods are often easy to make, more convenient and provide customers the flexibility to make payments from anywhere and at any time. These are a good alternative to traditional methods of payment and speedup transaction cycles. Post demonetization, people slowly started embracing digital payments and even smalltime merchants and shop owners started accepting payments through the digital mode [2].The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes [3].So during the physical money transaction currency may be infected that is the reason digital payment system increased in this pandemic situation.

2. Digital Payment System

A pandemic strikes and forces World to pull down its shutters overnight. Shops, roads, businesses, and travel – just about every movement in real life freezes. Everyone's bolted in – family, friends, and their families too. Everyone, except the money, that stays on the go, in a series of cashless transactions [4].

The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. As part of promoting cashless transactions and converting India into less-cash society, various modes of digital payments are available.

2.1 Banking Cards:

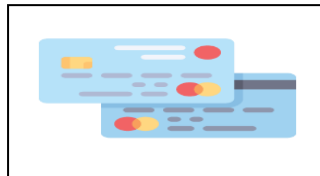


Fig.1 Banking Cards

Banking cards offer consumers more security, convenience, and control than any other payment method. The wide variety of cards available – including credit, debit and prepaid – offers enormous flexibility, as well. These cards provide 2 factor authentication for secure payments e.g secure PIN and OTP. RuPay, Visa, MasterCard are some of the example of card payment systems.

2.2 Unstructured Supplementary Service Data (USSD):



Fig.2 USSD

The innovative payment service *99# works on Unstructured Supplementary Service Data (USSD) channel. This service allows mobile banking transactions using basic feature mobile phone, there is no need to have mobile internet data facility for using USSD based mobile banking. It is envisioned to provide financial deepening and inclusion of underbanked society in the mainstream banking services.

2.3 Aadhaar Enabled Payment System (AEPS):



Fig.3Aadhaar

AEPS is a bank led model which allows online interoperable financial transaction at PoS (Point of Sale / Micro ATM) through the Business Correspondent (BC)/Bank Mitra of any bank using the Aadhaar authentication.

2.4 Unified Payments Interface (UPI):



Fig.4 UPI

Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the “Peer to Peer” collect request which can be scheduled and paid as per requirement and convenience. Each Bank provides its own UPI App for Android, Windows and iOS mobile platform(s).

2.5 Mobile Wallets :



Fig. 5 Mobile Wallets

A mobile wallet is a way to carry cash in digital format. You can link your credit card or debit card information in mobile device to mobile wallet application or you can transfer money online to mobile wallet. Instead of using your physical plastic card to make purchases, you can pay with your smartphone, tablet, or smart watch. An individual's account is required to be linked to the digital wallet to load money in it. Most banks have their e-wallets and some private companies. e.g. Paytm, Freecharge, Googlepay, Mobikwik, Oxigen, Ruppee, Airtel Money, JioMoney, SBI Buddy etc.

2.6 Point of Sale:

A point of sale (PoS) is the place where sales are made. On a macro level, a PoS may be a mall, a market or a city. On a micro level, retailers consider a PoS to be the area where a customer completes a transaction, such as a checkout counter. It is also known as a point of purchase.

2.7 Internet Banking:



Fig. 6 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. e.g. National Electronic Fund Transfer (NEFT), Real Time Gross Settlement (RTGS), Electronic Clearing System (ECS) etc.

3. COVID-19 Crisis: Implications for Payment Systems

The COVID-19 pandemic has led to a shrinking in digital transactions in India. In corroboration, the growth of currency with the public in India accelerated from 11.2 per cent on February 28 to 14.5 per cent as on March 31, to 21.3 per cent as on June 19, 2020 (12.8 per cent a year ago). At the same time, the cumulative value of digital transactions during January-May 2020 declined by 25.5 per cent (y-o-y) as compared with a strong growth of 20.6 per cent a year ago. Digital retail transaction value growth contracted by 10.6 per cent as compared with an increase of 31.3 per cent last year. However, both these indicators recovered in the month of May 2020.

In digital payments, the retail RTGS volume, which had registered healthy growth since July 2019 due to waiving of RTGS charges by the Reserve Bank, declined in March (-12.3 per cent), April (-52.5 per cent) and May (-27.5 per cent). While they regained traction in May, transactions through Immediate Payment Service (IMPS) had started declining in February 2020 and the drop became sharper in April 2020. Unified Payments Interface (UPI) transaction volume declined by 5.9 per cent in March 2020 and further by 19.8 per cent in April 2020 to slightly less than one billion transactions. However, it recovered as the lockdown was gradually lifted and logged a record 1.34 billion transactions in June 2020. The ratio of RuPay card transactions at e-commerce portals to point-of-sale (PoS) jumped to 237 per cent in April 2020 from 76.8 per cent in February 2020, reflecting the effect of social distancing. Apart from low demand during the lockdown, the suspension of operations by leading users of digital payments such as e-commerce and BigTechs could have contributed to a decline in small value digital payments. The decline in digital transactions during the lockdown period is indicative of the integration of the digital economy with the real economy. Digital transactions are expected to pick up when economic activity gathers momentum, with enabling conditions for uninterrupted growth of digital payments such as spread of seamless digital connectivity within consumers, local traders, distributors, producers and other stakeholders.[Source: RBI.][5]

Among rising fears of Covid-19 spread, when the physical transactions have almost crashed, the digital payments in India have witnessed an exponential spike in the last 21-day lockdown period. In the past three weeks over 42% Indians have used digital payment mode multiple times as compared to the pre lockdown period. Digital payment platforms have also not just seen a surge in the number of transactions but the number of downloads of digital payment platforms have also almost doubled

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 per the report about 54% of respondents have used their Visa card, while 30% have made online payments via Mastercard. About 12% respondents have used Rupay card for making online payments, the report added [6].

4. Barriers in Digital payment system

Digital payment system increased in Covid-19 pandemic. Digital fraud, weak IT infrastructure & awareness in rural areas and also cyber security is the big challenge for the growth of the Digital payment systems [7]. Banking sectors is not providing any proper training for the rural people about the digital payment systems. Digital payment system basic requirements are to open a bank

account, obtain a smart phone, and obtain internet access so most of the small merchant, rural peoples don't know about all these factors.

The statistic represents the results of a survey among digital payments users about the reasons for not adopting digital payments across India in 2017. A majority of respondents, about Security concern 15%, 14 percent, stated that the lack of awareness and a lack of strong ecosystem for cashless payments as reasons for not using digital payments during the survey period [8-13].

5. Conclusion

Digital payment system increased in Covid-19 pandemic. Digital payment system have very bright future in coming years but digital fraud, weak IT infrastructure cyber security is the big challenge for the growth of the Digital payment systems. Artificial Intelligence (AI) will be used in future to battle against digital fraud. To increase in digital payment system involvement of common peoples is the key factor and this is achieved by giving commitment to security about their personal data as well as digital transactions'. We need to empower users with continue security awareness, education and tools since they are often the first line of defense.

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