

# A Study of Role of Digital Banking in Indian Banking System during Covid-19 Lockdown Period

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**Abstract**— With the widespread of Covid 19 across the world, it has negative impact on various industries like retail, manufacturing, tourism, education, international trade and banking operations due to lockdown and restrictions. Since the vaccine for Covid 19 has still not developed, there is still uncertainty when the economic activities will start increasing again and the world economies back to new normal. On the other hand, digital banking and fintech companies have shown the positive growth with the introduction of new digital offerings to the customer. Indian banking system has emerged with the bank staff as a corona warrior by keeping their retail branches open with the partial staff strength and digital modes of payment through on line and video interactions. This particular paper focus the various initiatives taken by the Government, Banks, Fintech companies and regulators to bring infrastructure changes that helped the Indian economy to easily leveraged to conquer the quick problems created by the pandemic and timely control the damage.

**Keywords**— Virus, infection, banking, digital, COVID-19, corona virus.

## I. INTRODUCTION

Quantum dots are tiny semiconductor particles a few nano COVID-19 is spreading quickly worldwide, overburdening health methods with new circumstances. As of April 4th, 2020, COVID 19 cases have been defined in twenty-nine Indian states as well as union areas. As testing will continue to grow quickly, an influx of extra cases could be anticipated in the near long term. To decrease and control the speed of the novel virus spread as well as to keep infections at a manageable level, numerous countries have instituted cultural distancing and lockdowns. First India has implemented a nationwide 21-day lockdown, which is actually predicted to avoid a lot of COVID 19 infections in the temporary, though it's unknown just how the outbreak will unfold as soon as the lockdown is actually lifted.

In India, the impact of COVID 19 was less as compared to other nations, as a result of the precautionary measures due to early lockdown in March to June 2019. Nevertheless, India could not escape from the pandemic, because the covid 19 cases started increasing once the unlock and relaxation were given. The Union Government, Reserve Bank of India and Finance Ministry has undertaken a few measures to restrain the community spread, while individuals could not understand the the difficult circumstances as they lost their jobs and started moving to their native places. Government focus on wearing marks, sanitization and frequent washing

of hands and maintaining social distance to protect their life but people with low income, daily wagers and labourers got panicked in the absence of earnings and livelihoods, aren't bothered all about the life threatening COVID 19 calamity. This particular negligence has taken place due to their poverty and Union Government haven't taken into consideration the issue of their livelihoods and declared lockdown and restricted movement by stopping all means of transport like road buses, train and air flights. However, few State Governments for example Kerala as well as Madhya Pradesh had taken early initiatives in announcing the monetary schemes and relief measures to reduce the negative impact of Covid 19.

Learnings from China offers that higher temperature plus moisture might likely bring down the transmission rates though it's not so clear that exactly how it will have an effect on the Indian situation. Nevertheless, the most effective program is usually to be ready for numerous peaks and really should be prepared for any emergency occurring later on. Individuals who'll show symptoms next week are already infected as well as incubating the virus. Several of these will transmit before they're symptomatic. A big fraction of cases is actually moderate, but for older people, the mortality rate is strikingly greater. Kids are not as likely to be infected also not as likely to be hospitalized than adults are actually. Illness is much less apt to be serious of kids than in adults, as well as the infection rate is unlikely in females compared to males.

## II. IMPACT ON BANKING FACILITIES

Due to lockdown and restrictions in travelling, the retail branch banking operations was also adversely impacted and faced many difficulties to meet the anticipated customer's needs during this particular hour of need. Indian Bank's Association (IBA) in order to protect the safety and health of bank employees issued various guidelines to ensure banking business continuity.

IBA guidelines focus on the customer's shift to electronic and digital payment transactions through lap top and mobile applications to reduce the frequent visits to the bank's branches for cash with drawl and funds remittance. Banks were advised to maintain social distancing and hand sanitization facility for customers visiting the branches for specific transactions like big cash withdrawal and electronic funds transfer. Shift duties or three days in week roster were prepared for employees. Sales and regional offices staff who are not in direct touch with the customers are advised to work from home through mobile, video conferencing and e mails.

In order to ensure to reduce the foot fall of the walk in customers in bank's branches, the formula for last digit of customer's account number was introduced. For example, customer's account ending with 0 and 1 were allowed to visit the branch on 4th May, 2020 and customer's with account number ending 3 and 4 will be allowed to visit the branch on 5th May, 2020 and so on. However, customer was advised to use Automatic Teller Machines (ATMs) for cash with drawl up to their debit card limit. The various challenges faced by the banks are explained as below:

### 1.1 Critical Staff at Bank's Branches to handle Customers Services

Indian Banking System emerged as an Carona Warrior essential services institutions like hospitals, chemist shops, local grocery, fruit, milk and vegetable stores which were allowed exemptions to travel and work during the he COVID 19. Banks redeployed their staff members to maintain only critical banking transactions at branches and guiding customer to use on line, internet and mobile banking. Phone banking facilities were strengthened and customer queries were resolved in faster manner. Many banks E Collaborated with Fintech Companies and staff members were trained to create more customer's awareness. With limited and staggered duty of staff, banks were able to manage the effective customer services.

### 1.2 Currency Notes and Bank Coins

The important challenges and concern was the question of spread of carona virus through currency notes and bank coins. Confederation of All India Traders wrote the letter to The Finance Minister of India Ms Nirmala Sitaraman regarding introduction of polymer currency to control the possible spread of caroanovris through paper currency cash. However, there is no such concrete research which proves this theory which links the current strain of coronavirus to contaminated currency notes. WHO has issued guidelines on proper sanitization and hygiene post handling of paper currency and notes WHO also stated that uncertain times the covid 19 stay on the surfaces and it may persist for few hour or may be few days. Thirteen countries have adopted

polymer currency and fifteen more countries are planning to start. It is advisable to wash hands frequently after handling cash and do not touch face. The solution for this problem is to promote digital and contactless payment.

### 1.3 MAXIMIZING DIGITAL CHANNELS

On 16th March, 2020 RBI issued a directives requesting customers to use digital payments as alternative modes for cash payments. Digital finance provides great resources in promoting e -banking methods efficiently and quickly to the stakeholders that require it the best. Particularly concentration on the techniques as well as answers readily available to mitigate the human and economic influence. In the existing situation, economic influence outcomes from short term elements (but these can, at some point, turn into structural elements, which would in turn call for various strategies). Digital monetary resources are able to attain conventional problems management goals with higher potency as well as precision than was historically achievable. This might well be one benefit to Government to meet the challenge of the present crisis. The data-driven dynamics of digital finance supplies policymakers with the capability to design as well as scale stimulus with accuracy. The questions are actually if the ability is completely mature and if the info is actually in, readable, and available front of the decision makers. Consolidating, checking and curating collected info is actually a primary pillar of crisis readiness that could well be tragically revealed to be low in the present pandemic.

Digital finance platforms are now being used to restrict the independence of shoppers to majority invest in through employing quantity quotas. The progress in and sophistication of online and app-based budgeting equipment has noticed the possibility of determining as well as categorizing monetary transactions improve extremely recently. Receptive banking platforms which provide third parties with customer banking info may also be leveraged to recognize buy behaviour, and aggregate details for anxiety identification as well as quota implementation. As Artificial Intelligence (AI) analytics develop, these kinds of sources of info can be correlated with other data sets (such as for instance, social media communications) to offer a lot more distinct steps of public sentiment.

## III. REVIEW OF LITERATURE

Said Nadeem (2020) studied that Humankind has watched different pandemics since the commencement where some of were more appalling than the others to the people. Mankind's history is watching a bizarre time battling an undetectable foe; the novel coronavirus. At first we saw in the Wuhan territory of China fast spreading far and wide. This exploration expressed that WHO is gathering the most recent logical discoveries and information on COVID-19 and arranging it in a database.

Delia Enria et al (2020) in their examination they expressed that last three weeks, new significant epidemic foci of 2019 corona virus disease, some without recognizable cause, have been distinguished and are quickly extending in North America, Europe, Asia, and the Middle East, with the

principal affirmed cases being recognized in Latin and African American nations. By 16th March, 2020, the number of instances of 2019 corona virus outside China had expanded radically and the influenced nations, states, or domains revealing contaminations to WHO was 143. Based on "disturbing degrees of spread and seriousness, and by the disturbing degrees of inaction", on 11th March, 2020, the WHO Director-General described the 2019 corona virus circumstance as a pandemic. The WHO STAG-IH normally surveys and updates its hazard appraisal of 2019 corona virus to make proposals to the WHO health crises program. The Study presumed that the STAG-IH stresses the significance of the proceeded with quick sharing of information of public health significance in medical journals that give fast friend survey and online publication without a paywall. It is sharing of data right now, well as specialized coordinated effort among clinicians, disease transmission experts, and virologists, that has given the world its ebb and flow comprehension of 2019 corona virus.

Li et al (2020) give a point by point epidemiologic & clinical depiction of the initial 425 cases announced in the outbreak focal point: the city of Wuhan in Hubei territory, China. In spite of the fact that this data is basic in illuminating the suitable reaction to this outbreak, as the creators bring up, the examination faces the confinement related with detailing progressively the development of a rising pathogen in its soonest arranges. Regardless, a level of lucidity is rising up out of this report. The median age of the patients was fifty-nine years, with higher dismalness and mortality among the older and among those with existing together conditions (like the circumstance with flu); patients Fifty-six percent were male. Of note, there were no cases in youngsters more youthful than 15 years old. Either kids are less inclined to get infected, which would have significant epidemiologic ramifications, or their side effects were mellow to the point that their contamination got away from recognition, which has suggestions for the denominator size of complete infections community.

Zhe Cheng et al (2020) expressed that the quick spread of new coronaviruses all through China and the world in 2019–2020 has greatly affected China's monetary and social improvement. As the foundation of Chinese society, Chinese universities have made huge commitments to emergency hazard the executives. Such commitments have been made principally in the accompanying regions: graduated class asset assortment, medical salvage and emergency the board, mental health upkeep, control of staff versatility, and innovation in online education models. Through the help of these techniques, Chinese universities have assumed a positive job in the prevention and control of the epidemic circumstance. Be that as it may, they additionally face the issues of graduated class' monetary improvement challenges, the danger of savage contamination to medical salvage groups and health laborers, disease of instructors and understudies, and the unsuitable utilization of data innovation in settling the emergency. In response to these dangers and emergency issues, we propose some comparing answers for public scattering, including issues identified with medical security,

emergency research, proficient help, positive correspondence, and various levelled data based educating. Wang Hongjiang (2020) Africa is confronting an undeniably extreme epidemic circumstance as more than 500 COVID-19 cases have been accounted for in somewhere in the range of 30 African nations. Customary Chinese medication (TCM) is picking up prevalence in the mainland as it demonstrates compelling in treating coronavirus patients. The European Board of Medicine (2020) is taking a shot at all fronts to help endeavours to handle the COVID-19 episode. The board is made out of seven individuals from six Member States who will act in their own abilities and freely. The European Medicines Agency (EMA), The European Centre for Disease Prevention and Control (ECDC), and the Emergency Response Coordination Centre (ERCC) will take an interest as eyewitnesses.

Bert Hoffmann, Mariana Llanos and Merike Blofield (2020) expressed that the COVID-19 pandemic is trying the social orders of the world's most inconsistent mainland, where many rely upon casual work for their employment. Social-distancing measures legitimately influence their jobs, and make immediate social help basic. The emergency is additionally trying political administration, as certain presidents are developing as solid, binding together pioneers, while others struggle, in a mainland where generally trust in formal establishments is low.

#### IV. OBJECTIVES OF THE STUDY

The purpose and objectives of the Study:

1. To understand the situation of COVID-19 in India and its Impact on Banking
2. To study the initiatives taken by Government of India and Reserve Bank for promoting Digital Banking
3. To analyse the actions taken to enhance digital payments
4. To analyse the implications for digital payments and digital currencies

#### IV. RESEARCH METHODOLOGY

To understand the role of digital banking in India in COVID-19 lockdown, we used secondary online sources. The following sections were analysed on the basis of this to identify the Research Topic. They are as follows:

- Initiatives of RBI and Indian Government
- Digital Payments Actions for Enhancement
- Present scenario increasing digital payments in COVID 19

The Secondary research methodology was adopted through literature view by studying various banking journals, banking and finance websites and on line financial websites.

#### V. ANALYSIS AND INTERPRETATIONS

Below are the Results of the Findings of the sections: Government of India launched Digital India Campaign five years ago through national E Governance Plan including two important web based platform My Gov .in and Umang as well digital locker and Sampark industry. The main vision of the Government is to promote cash less society and

transformation of digital banking initiatives through financial literacy and customer awareness.

Artificial intelligence, Block chain, Big Data, Robot Process Automation and Internet of things have promoted remote banking which played an important role during covid 19. E collaboration of traditional banks with Fintech companies have increased the financial inclusion to a great extent. Digital banking promoted anywhere any time banking through net banking and mobile banking in the remote areas of India which were unbanked.

During these difficult and uncertain times of Covid 19, Artificial intelligence technology have played an important role in leading India to substantial growth. Digital India initiatives by Government are:

1. Aadhar Enabled Payment System ( AEPS )
2. BPO Scheme
3. Digidhan Abhiyan
4. MYGOV
5. National Mission on Education using ICT
6. North East BPO Promotion Scheme
7. NREGA Soft
8. Openforge
9. Pahal ( DBTL)
10. Pay Gov India
11. Pradhan Mantri Jan Dhan Yojana ( PMJDY)
12. Pradhan Mantri Koshal Vikas Yojana ( PMKVY)
13. Smart Cities
14. Targeted Public Distribution System ( TPDS)
15. BHIM (Bharat Interface for Money)

All the initiatives taken by the Government of India promoted awareness among the common man to use digital banking funds transfer and opening savings accounts in the banks.

### 5.1 INITIATIVES TAKEN BY RESERVE BANK OF INDIA

On March 27, 2020 Reserve Bank of India announced 10 important decisions through various developmental and regulatory policies to control the stress in financial system caused by Covid 19.

#### A. Liquidity Management Initiatives

##### 1. Targeted Long Term Repos Operations

RBI conducted auctions of three years tenor of targeted term repos for a total amount of Rs. 100000 crores with appropriate sizes at a floating rate linked to the policy repo rate. This will help the banks to access working capital to increase the bank credit.

##### 2. Cash Reserve Ratio

To meet the challenge of highly asymmetrical distribution of liquidity in the economic system, RBI took one time measure to support the banks by reducing Cash Reserve Ratio by 100 basis points from 4 % to 3%. The advantage of this initiative by RBI was Rs. 137000 crores primary liquidity would be available thus enabling banks to increase their lending.

##### 3. Marginal Standing Facility (MSF):

Taking into consideration the high volatility in the financial markets and to provide support to banks in case of liquidity stress, Banks can borrow overnight under MSF facility at their discretion by dipping up to the 2 % into the Statutory

Liquidity Ratio (SLR). RBI increased the MSF from 2 per cent to 3 percent which allowed banks to borrow additional Rs. 137000 Crore under the LAF Window.

#### 4. Widening of the Monetary Policy Rate Corridor –

#### 5. Moratorium on Term Loans

#### 6. Deferment of Interest on Working Capital Facilities

#### 7. Easing of Working Capital Finance

#### 8. Deferment of Implementation of Net Stable Funding Ratios

#### 9. Deferment of Last Tranche of Capital Conservation Buffer

#### 10. Permitting Banks to Deal in Offshore Non Deliverable Rupee Derivative Markets (Offshore NDF Rupee market.

#### B. Digital Banking Initiatives

RBI Governor Mr Shaktikanta Dass requested banking customer to replace cash as mode of their payment with digital banking products for safe banking and a precaution to reduce the spread of virus through coins and currency notes. These digital payments have advantage of avoiding social contact, avoiding visiting public places, convenience of use from home or office through online, internet, cards, mobile and wallets. Government of India and RBI's vision to promote digital payments through various products like:

1. National Electronic Funds Transfer (NEFT) is a RBI controlled interoperable payment channels for funds transfer between the customers. It's a safe, stable, affordable and secure retail payment system. In 2019, RBI removes the charges and made NEFT 24 X 7 available. There is no limit on minimum amount of remittance and processed in batches.

#### 2. Immediate Payment System (IMPS)

is electronic funds transfer facility instantly through internet, website and application. . Indian Financial System Code (IFSC), Account number and bank branch id of the beneficiary is required by the remitter to execute the funds transfer up to Rs. 2 Lakh per day.

#### 3. Unified Payment Interface (UPI)

is a retail payment system introduced by NPCI – National Payment Corporation of India for funds transfer through mobile platform between two banks accounts up to Rs 1 lakh per day. Internet and Smart phone is required with VPA of recipient and M Pin.

#### 4. Bharat Bill Payment System (BBPS)

is an integrated bill payment system for the customers to pay their utility bills like electricity, water, school fees which are of repetitive nature. Multiple payment modes and multiples network of agents available for making instant payment without physically visiting the offices,

#### 5. Real Time Gross Settlement (RTGS)

Is a real time on line high value funds transfer payment system for Rs 2 lakh and above?

### 5.3 Implications of digital banking initiatives

#### 1. Opening of PMJDY Account

2. Decrease in UPI / IMPS /BHIM /BBPS Transactions in initial period of lockdown

As per the recent data provided by NPCI, during lockdown period and due to restrictions in travel, retail sectors and hospitality, digital transactions have witnessed 30% decline in the transaction value in the initial months from March to

June 2020. UPI and BHIM transactions decline 30% and 39% in in April 20 as compared to January 2020. IMPS saw a decline of 44 percent as during lockdown customer restricted the spending as well as deferred monthly loan instalments. Due to restriction in volumes for UPI transactions, charges for INR 2.5 / INR 5 for P2P transactions were introduced beyond 20 transactions per month.

3. Digital payments regained increasing trends post relaxations of lockdown restrictions

Transactions value of UPI / BHIM transactions increased to 122% and 91% respectively in June 2020 as compared to their January 2020 levels. IMPS transactions increased to 95% in June 2020. Customers shifted to online grocery shopping through E Commerce during covid 19 as shopping malls and markets were closed.

4. Waiver of third party ATM Withdrawal fees for three months starting 25th March 2020

#### 5.4 PRESENT SCENARIO INCREASING DIGITAL PAYMENTS IN COVID 19

Regardless of if worries are actually justified or perhaps not, perceptions in which money may distribute pathogens might change payment behaviour by firms and owners. In previous crises, need for money has frequently improved, as buyers have sought a stable store of medium and value of exchange. At the present juncture, information doesn't yet paint a consistent photo. In India, money in circulation has just recently improved. But in India, automatic teller machine (ATM) withdrawals have fallen. Within the medium term, the outbreak might in process lead to both greater precautionary holdings of money by customers along with a structural rise in the usage of mobile, online payments and card. These advancements might differ throughout societies, and in between several customers.

Present advancements bring digital payments to the fore. However only some digital payments are actually immune. For example, debit as well as charge card transactions commonly call for a signature or maybe a PIN entry at a merchant owned unit for bigger transactions. Contactless card payments, which are actually common in a number of countries don't call for a PIN for tiny transactions.

Digital wallets or maybe various other smartphone-based payment interfaces (eg saved card details or perhaps QR codes) where no bodily contact of the identical object by several individuals takes place are more possible solutions. Online payments for e-commerce are of course not prone to viral transmission. A realistic assessment of the chances of transmission via money is particularly crucial because there might be distributional effects of any shift away from money. When money isn't mostly recognized as a means of payment, this may open a payments divide' between individuals with access to digital payments and those without. This in turn might have a particularly serious effect on older and unbanked customers.

In a lot of the emerging market place and developing economies in which authorities have just recently known as for higher use of digital payments, access to these kinds of options is much from common. This may remain a crucial

debate going forward, possibly asking for a strengthening of the job of money.

#### VI. CONCLUSION

A crisis isn't the time period to attempt to apply completely new digital & technological fixes. It's the time period to make use of the digital infrastructure already in place to much greater & likely new consequences, as well as the simplest way to do this might well be for governments to convene (electronic) gatherings of financial sector as well as fintech professionals to check out what could be completed in each country. Mobile cash along with other payment infrastructures could be utilized to point specific payments to the individuals as well as small enterprises virtually all in need. These digital payment infrastructures provide traceability as well as quickness. Loyalty as well as certainty have to be preserved as well as enhanced. Quickly effected assistance payments going to those that want the most work to attain both ends

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