

Does Covid-19 a Compelling Force for the Growth of Digital Banking in India?

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Introduction

Covid-19 Pandemic has changed the entire world economy and impacted most of the businesses. It caused a transformation in the way people live, interact and make purchase decisions. Even under these conditions, banks are responsible for maintaining liquidity flows and should continue their duty to finance the economy, to continue to lend to individuals and business and to maintain their customer base. So banks are trying to transform their strategies that define their future and to rethink their entire flow of activities. The current crisis is an opportunity to change the banking business as well as a rethinking of the development of the bank-customer relationship. These involve not only the digitalization and modernization of financial activity of banks, but also the development of skills and the promotion of a sustainable bank-customer relationship.

Covid-19 pandemic has imposed a different approach to the banking activity in order to facilitate its consumers' access to the banking operations. It accelerated digitalization in the banking system. Banks noticed a shift in customer approach towards digital or electronic banking. So that banks have provided customers with online banking tools thereby they can perform their simple and convenient operations at anytime and anywhere. Mobile banking allows the users to access their accounts, check the status of the services online, timely update and handle transactions and communication with bank, anytime, anywhere around the world. Mobile banking wallets has boosted the banking sector and enhances daily transactions in an efficient and safe mode.

Literature & Synthesis

Covid-19 threats have imposed many changes in the banking sector of India. To ensure speedy and effective customer services in the banking sector, major banks in India developed a shift in customer approach towards digital or electronic banking. So that banks have developed digital platforms for speedy & diversified services. Simple online banking tools, which enables even the illiterate and technologically backward people to perform simple and convenient operations at anytime anywhere banking. Mobile banking and digital platforms allows the users to access their accounts, check the status of the services and helps to update banking and non-banking transactions and communications with the help of Internet of Things and Artificial intelligence. Mobile banking wallets has boosted the banking sector and enhances daily transactions in an efficient and safe mode.

Related studies highlighted the situations and provide the back up of this study, Covid-19 Pandemic adversely hampered the Indian banking operations and severely affected all the industries across the world economy, Nilam Panchal, (2021). He argued that, Governmental intervention is required to take decisions and actions to lessen uncertainty and financial stress in the economy and continuous measures should be taken to enable the smooth functioning of both money and capital markets, Banking system in India has implemented various measures due to COVID-19 Pandemic to make banking operation more smooth and effective, Patil ., Anu Alex, (2020). Based on their study they found that, most of the Indian Banks were facing the problem of

NPA, Non recovery of loan, customer issues, Bad Loans during Covid- 19 situations and resultant shut down.

The degree of mobile/internet banking services usage of the respondents has increased during the pandemic in comparison with the period before the pandemic, Daniel,Gardan,Claudia, (2020), their survey indicate the need to increase the efforts of banks to offer financial education courses to all categories of bank customers. Tammana Muzawar,(2020), points out that due to covid-19 pandemic and nationwide closure people believe that visiting branches and availing banking services is not safe and secure. As the banks have modernized they have encouraged their customers to avail benefit of online, internet and mobile banking services. Their study found that most of the people are using mobile banking services as it is clear that since time saving, cost effective, reliable and easy to use than Conventional Banking.

Suhas. D, H & N. Ramesh, (2018), in their review all the banking transactions can able to be processed quickly and easily with the help of Electronic banking. It clearly stating the numerous assistance and services provided by e-banking to their customers and also the challenges which the customers are facing in the adoption of e-banking.

Review of literature has shown that a number of studies have been conducted in the field of Technologically Improved Banking Services to identify the impact of Covid-19. We highlight the Impact of Covid-19 on Technologically Improved Banking Products and Services in India. The present study focuses on the total digital banking payments and settlement system existing in India, basically digital banking services such as Large Value Credit Transfers, Real Time Gross Settlement (RTGS), digital payments of APBS, IMPS, NACH Cr, National Electronic Fund Transfer (NEFT), Unified Payment Interface (UPI), BHIM Aadhaar Pay, Debit Cards, Credit Cards and Prepaid Payment Instruments.

Statement of the problem

Banking sector which is responsible for all the financial activities in the country and working as a supporting hand to all of the industries has witnessed a great challenge during the pandemic times. Banks were directly affected by the COVID-19 crisis, being forced to rethink their business operations and strategies to revise and analyses the directions of their existing activities. As personal banking is not appropriate during this Covid-19 pandemic, it has forced people to use contactless payments and avoid handling paper money as much as possible. Most of the bank branches encouraged their customers not to visit their branches and make use of digital banking tools and products to carry out their day to day banking operations. Thereby the Covid-19 has pushed bank consumers towards the use of digital banking products like online and mobile banking. Banks have come up with digital banking services that encouraged customers to avail benefit of online, phone and mobile banking services as all these services are available at finger tips of customers in lieu of branch visits. Thus technology has altered the banking landscape by increasing non-branch banking which in turn helps to create customer value. It is imperative for banks to adopt technology in the age of transformation to survive in the ever-changing market. The banking industry changed some of its old methods and is now finding new ways to retain its customer base. This period is of importance for banks, as it creates a modern credible digital interface to digitalise their processes.

Indian banking sector, digital means are getting popular as most of the customers are already much learned toward online banking. This study envisages how the Covid 19 impacts the development of digital banking in India and the growth of technologically improved digital banking services in the banking sector in an overall aspects. And analyse the growth of total digital banking settlements and payments during the pandemic period.

Significance of the study

During these pandemic times banks are concentrating more on value based services through the means of electronic banking. The evolving way of internet banking, mobile banking and information technology-enabled services are replacing the traditional way of banking operations. As a necessity, some bank customers were forced to adopt digital options as a means of transactions, while others moved to digital options for the first time. By adopting the digitalized way of operations, banking sector provide quality and value added

services to their customers . Banks will need to respond to lasting social change conditions in order to understand how consumers select products and services, to meet individuals' financial needs.

As decisions on how the banking sector responding to the pandemic challenges and relevance of the services and products that they are providing to the customers on a safe and convenient mode, will be the key to successful banking, this study mainly focus on the emerging phase of digital banking operations through Technologically Improved Digital Banking and analyzing the growth of the new banking trends during the Covid-19 pandemic times.

Scope of the study

The present study investigates the ever changing banking during the COVID-19 pandemic. The scope of the study is to understand the coping mechanisms of banks during the pandemic crises, by comparing it with the pandemic period. This study allows us to outline how banks use their strategies to adapt their digital transformation. The scope of the study limited to enquire the growth of digital banking in India. The findings of the study will be useful for the Indian banking sector to strengthen the digital banking services by formulating suitable strategies to build the customers trust and loyalty, thereby help the banks to retain their customer base and will assist the bank to reduce their cost of operation, generate substantial revenue from the online banking and e-payment transaction and encourage them to provide more digital banking product and services that will meet the costumer's needs in the future. An analytical study on banking strategies is important to properly support future research in the area of Emerging Technology in Improved Digital Banking Services of Indian banking sector.

Objectives of the study

The present study titled as “Covid-19 - Does a compelling force for the growth of Digital Banking in India has been initiated to attain the following objective.

To study the emergence of digital banking in India during the period Covid-19 in terms of value and volume.**Research Methodology**

The present study is an empirical study based on secondary data. Population for the study constitute Public and Private sector banks in India. The study is mainly aims to the develop an insight into the development of digital banking during the pandemic period.

Analysis

Financial inclusivity and accessibility are the cornerstone of global economic development, especially in a world that is traversing one of its toughest uncertainties of all times. The global banking and financial services industry, which has undergone seismic shifts in the post Covid -19 pandemic period. The larger economic objectives enable accessible and inclusive global banking using fintech and application programming interfaces (APIs). For global banks that are spread across multiple countries and market, it presents an opportunity to use advanced technology solutions to make improved infrastructure in terms of higher rates of internet and mobile penetration across the world has been a key enabler of this revolution , which is slated to make global banking industry a \$43.15 billion business world wide by 2026 (Ahamed Abdelaal, 2022) .

Nearly a quarter of million people was driven by consumers seeking advanced digital banking services (Karl Flinders, 2022). Digital banks are beginning to eat into the market dominance of traditional banks. Thousands of bank's customers counting to benefitted from digital banking even in the face of growing challenges presented by the emergence of Covid-19 Omicron variant (David Piper, 2022); and digital first current account providers continue to attract new customers as “ many seek current account providers with high quality online tools, such as mobile apps”. Digital challengers have won millions of customers, people are changing for non-financial reasons, with the top reasons cited including better online banking facilities (51%), sophisticated mobile or app based banking system (41%) and improved customer service (38%).

During the period of Covid-19, the Reserve Bank continued to ensure safe, secure, quick and affordable e-payment options, with greater competition and customer confidence in the payment ecosystem of the country.

NEFT was a significant milestone to reach out the customers and excluded sections of society with a bouquet of e-payment options, supported by an efficient regulatory environment and robust consumer protection by next generation financial messaging system and wireless technology for banks.

| Table-1: Payment System Indicators – Annual Turnover (April-March) | Table-1: Payment System Indicators – Annual Turnover (April-March) |
|--------------------------------------------------------------------|--------------------------------------------------------------------|
| | Volume (Lakh) |
| | 2017-18 |
| | 1 |
| A. Settlement Systems | A. Settlement Systems |
| CCIL Operated Systems | 35 |
| B. Payment Systems | B. Payment Systems |
| 1. Large Value Credit Transfers – RTGS | 1,244 |
| Retail Segment | Retail Segment |
| 2. Credit Transfers | 58,793 |
| 2.1 AePS (Fund Transfers) | 6 |
| 2.2 APBS | 12,980 |
| 2.3 ECS Cr | 61 |
| 2.4 IMPS | 10,098 |
| 2.5 NACH Cr | 7,031 |
| 2.6 NEFT | 19,464 |
| 2.7 UPI | 9,152 |
| 3. Debit Transfers and Direct Debits | 3,788 |
| 3.1 BHIM Aadhaar Pay | 20 |
| 3.2 ECS Dr | 15 |
| 3.3 NACH Dr | 3,738 |
| 3.4 NETC (Linked to Bank Account) | 15 |
| 4. Card Payments | 47,486 |
| 4.1 Credit Cards | 14,052 |
| 4.2 Debit Cards | 33,434 |
| 5. Prepaid Payment Instruments | 34,591 |
| Total – Retail Payments (2+3+4+5+6) | 1,56,371 |
| Total Payments (1+2+3+4+5+6) | 1,57,615 |
| Total Digital Payments (1+2+3+4+5) | 1,45,902 |

Note: 1. RTGS system includes customer and inter-bank transactions only. 2. The figures for cards are for payment transactions at point of sale (POS) terminals and online. 3. Figures in the columns might not add up to the total due to rounding off of numbers. Source: RBI.

The payment and settlement systems recorded a robust growth during 2019-20, growing by 44.1 per cent in terms of volume on top of the expansion by 55.8 per cent in the previous year. Real Time Gross Settlement (RTGS) system. The share of digital transactions in the total volume of non-cash retail payments increased to 97.0 per cent during 2019-20, up from 95.4 per cent in the previous year (Table-1). However, the extended period of lockdown arising on account of the COVID-19 pandemic resulted in subdued economic activity and lower discretionary payments, thereby leading to a fall in digital transactions. 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 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.

Figure-1: Total Digital payments - Payment System Indicators (2017-2020) Annual Turnover (Volume)

[CHART]

Source: Reserve Bank of India - Annual Report 2020.

During 2019-20, the number of card payment transactions carried out through credit cards and debit cards increased by 23.5 per cent and 16.1 per cent, respectively, Prepaid Payment Instruments (PPIs) recorded a volume growth of 15.7 per cent on top of the 33.2 per cent a year ago. The acceptance infrastructure witnessed substantial growth; the number of Point of Sale (PoS) terminals increased by 38.2 per cent to 51.4 lakh and the number of Bharat QR codes deployed increased by 74.6 per cent to 20.28 lakh as at end-March 2020. Further, during the same period, the number of ATMs increased from 2.22 lakh to 2.34 lakh. (Reserve Bank of India - Annual report -2020).

Table-2: Payment System Indicators – Annual Turnover (April-March)

| | Table-2: Payment System Indicators Value (in crore) 2017-18 |
|----------------------------------------|-------------------------------------------------------------------|
| A. Settlement Systems | |
| CCIL Operated Systems | 10,74,80,202 |
| B. Payment Systems | |
| 1. Large Value Credit Transfers – RTGS | 11,67,12,478 |
| Retail Segment | |
| 2. Credit Transfers | 1,88,14,287 |
| 2.1 AePS (Fund Transfers) | 300 |
| 2.2 APBS | 55,949 |
| 2.3 ECS Cr | 11,864 |
| 2.4 IMPS | 8,92,498 |
| 2.5 NACH Cr | 5,20,992 |
| 2.6 NEFT | 1,72,22,852 |
| 2.7 UPI | 1,09,832 |
| 3. Debit Transfers and Direct Debits | 3,99,300 |
| 3.1 BHIM Aadhaar Pay | 78 |
| 3.2 ECS Dr | 972 |
| 3.3 NACH Dr | 3,98,211 |
| 3.4 NETC (Linked to Bank Account) | 39 |
| 4. Card Payments | 9,19,035 |
| 4.1 Credit Cards | 4,58,965 |
| 4.2 Debit Cards | 4,60,070 |
| 5. Prepaid Payment Instruments | 1,41,634 |
| 6. Paper-based Instruments | 81,93,493 |
| Total – Retail Payments (2+3+4+5+6) | 2,84,67,748 |
| Total Digital Payments (1+2+3+4+5) | 13,69,86,734 |
| Total Payments (1+2+3+4+5+6) | 14,51,80,226 |

Note: 1. RTGS system includes customer and inter-bank transactions only. 2. The figures for cards are for payment transactions at point of sale (POS) terminals and online. 3. Figures in the columns might not add up to the total due to rounding off of numbers. Source: RBI.

Amongst the electronic modes of payments, transactions under the RTGS system expanded by 10.3 per cent during 2020, with their value at [?]1,311.6 lakh crore, however, dipping by 3.3 per cent from the previous year, mainly on account of decline in large value transactions of corporates in line with slowdown in economic activity. At the end of March 2020, the RTGS facility was available through 1,53,605 branches of 218 banks. Transactions in the National Electronic Funds Transfer (NEFT) system rose by 18.3 per cent during the year. At the end of March 2020, the NEFT facility was available through 1,53,687 branches of 217 banks.

Figure-2: Total Digital payments - Payment System Indicators (2017-2020)

[CHART]

Source: Reserve Bank of India - Annual Report 2020.

Total payments in the year 2017-18 was Rs.14,51,80,226 crore in value and in the year 2018-19 it is increased to Rs. 1720,98,350 crore. In 2019-20 total value of digital payments increased to Rs. 17,01,30,756 crore. This proves the steady growth of overall digital transaction in value in the initial periods of pandemic. However, dipping by 1.01 per cent from the previous year, mainly on account of decline in large value transactions of corporates in line with slowdown in economic activity (Reserve Bank of India Annual report, 2020).

Indian banking industry was confronted with an ever increasing demand from customers to provide innovative digital products and services in a highly competitive market during Covid -19 pandemic period. Information Technology transformation by using Application Programming Interfaces (APIs) to simultaneously accelerated technical modernisation and enable new business ideas over time. Competitive markets and increasing demand for digital solutions during pandemic period facilitates end-to-end digital customer journeys such as innovative banking technology, advanced-analytics-based products and a core-banking -system push cloud adoption. Introducing new digital capabilities such as robotics, smart automation, and advanced analytics help to generate full business value of banking System in India. APIs are the core of IT architecture and play a significant role in digital strategy of banking.

Implications

The COVID-19 pandemic has led to a diminution 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. Of this, 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 (y-o-y) 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. Empirical analysis for the period 2009-19 supported statistically significant unidirectional Granger causal relationship from the growth of nominal GDP and private final consumption expenditure

(PFCE) to the growth of digital and retail transaction value. (RBI - Annual Report, 2020).

During 2019-20, the number of card payment transactions carried out through credit cards and debit cards increased by 23.5 per cent and 16.1 per cent, respectively, while the value increased by 21.1 per cent and 35.6 per cent to [?]7.3 lakh crore and [?]8.0 lakh crore, respectively. Prepaid Payment Instruments (PPIs) recorded a volume growth of 15.7 per cent on top of the 33.2 per cent a year ago, while transactions value at [?]2.2 lakh crore increased by little more than 1.0 per cent. The acceptance infrastructure witnessed substantial growth; the number of Point of Sale (PoS) terminals increased by 38.2 per cent to 51.4 lakh and the number of Bharat QR codes deployed increased by 74.6 per cent to 20.28 lakh as at end-March 2020. Further, during the same period, the number of ATMs increased from 2.22 lakh to 2.34 lakh (Reserve Bank of India - Annual report -2020).

Findings of the study

- 1) The COVID-19 pandemic has led to a diminution in digital transactions in India.
- 2) The Covid 19 pandemic has a direct and positive impact on the development and introduction of Technologically advanced banking products.
- 3) During the lockdown, the suspension of operations by leading users of digital payments such as e-commerce and Big-Techs could have contributed to a decline in small value digital payments.
- 4) There is a steady growth in the value of digital payments, such as APBS, IMPS, NACH Cr, NEFT, UPI, BHIM Aadhaar Pay, Debit Cards, Credit Cards and Prepaid Payment Instruments from 2017 to 2019.
- 5) There is a decline in the value of digital payments, especially in case of payments like APBS, IMPS, NACH Cr, NEFT, UPI, BHIM Aadhaar Pay, Debit Cards, Credit Cards and Prepaid Payment in 2021 while comparing to previous year.
- 6) In terms of volume total digital payments is also increasing year by year during the pandemic period.
- 7) In terms of value total digital payments is also increasing year by year during the pandemic period except in the year 2020-21.
- 8) The growth of overall mobile internet transaction rapidly developing during corona period.
- 9) The increasing trend of growth which is seen in the total digital payments in volume in the banking sector is also be seen in the growth of all digital banking transactions.

Conclusions

Banks are an important pillar of the economy and the strategies they adopt will influence the recovery of the economy after the pandemic times. Digitization remains a priority option for the banks, in order to offer customers with the quality and safest solutions in their current business with the bank. The increasing use of digital transactions during COVID-19 is expected to continue in coming years, requiring banks to re-evaluate their banking activities. The migration of banks to the digital banking has much more importance to the banking sector and it is important to take steps for the development of the emerging banking technologies. The new - digital banks need to work harder to increase the level of consumer confidence, digital security, and the value of services. As the customer experience is more essential to banks, only those banks which modernize their IT infrastructure and provide online access to banking products and services will have benefits in future. The future of banking products and services is a combination of online and offline, to respond to a consumer whose preferences are constantly changing. So the banking sector in India needs to develop a well-developed strategy to digital technologies in order to have a long term benefit.

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