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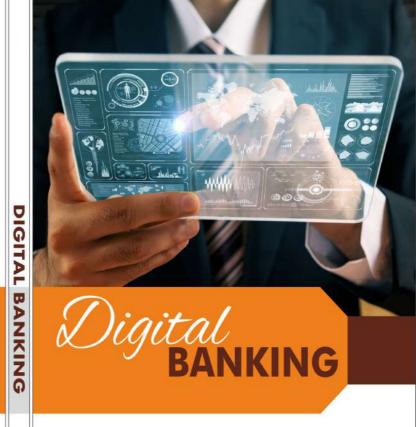
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Dr. Mugdha Deshpande is working with Dayanand Arya Kanya Mahavidyalaya since 18 years currently she is an Associate Professor in Department of Commerce . She has published several papers in National and international journals and worked as an expert in various committees. She has been convenor of UGC sponsored conferences and seminars. She has completed one UGC sponsored Minor research project. She has also worked on the editorial board of various journals. She is associated with many cocurricular activities as well.



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# **EDITORS**

Dr.Shraddha Anilkumar | Dr. Mugdha Deshpande

# **DIGITAL BANKING**

# **Editor**Dr Shraddha Anilkumar

**Co-Editor** Dr Mugdha Deshpande



Arya Vidya Sabha's Dayanand Arya Kanya Mahavidyalaya Jaripatka, Nagpur.



# **Digital Banking**

# Editor Dr Shraddha Anilkumar

Co- Editor Dr Mugdha Deshpande

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# **PREFACE**

Digital Banking is the new way of working in the banking sector. It provides an altogether new banking experience for customers, where they can access all banking facilities, hassle free ,at the click of a button in the peace of their homes. It also means 24\*7 access to banking services and in an environment friendly paper less manner

The Covid 19 pandemic came as a shock to the whole world. Lockdown was imposed across the nation, The wheels of the entire economy came to a scrunching halt. It spelt the doom of many industries especially the banking sector.

The Covid 19 induced lockdown meant staying indoors, at this point digital banking played an important role in holding onto customers by catering to their banking requirements online. This has actually worked as a boon in disguise for the banking sector. The digital India campaign picked up like never before. Millions of people had no option but to use the digital technology to meet their financial requirements during lockdown. This not only meant a more active number of customers using digital banking, greater coverage and better-quality service by banks, but also boosted the banking industry like never before.

The banks have been quick to identify this gap and several banks developed their own apps to give customers a truly personalized experience, thus holding onto existing clients while competing fiercely to rope in new ones.

However, issues and challenges were not far behind, the new opportunity brought with it several challenges and issues.

This book is a compilation of scholarly articles on the subject, delving into digital banking as an opportunity for growth to banks and the allied issues and challenges it has brought along with it, a major challenge being safety in financial transactions. Attempts have been made to include articles that provide an all round view of the concept of Digital Banking.

Efforts taken in the compilation of this book will be fruitful if it benefits the scholars academicians and readers

**Editors** 

# **EDITORIAL**



It gives me immense pleasure to present before you this book on Digital Banking. It is a compilation of scholarly articles on the subject. The world today is making progress in leaps and bounds. The banking sector too has to keep pace with it. Digital banking is the banking sector's gift to the world. The various aspects introduced earlier, were nevertheless implemented during the different times in the Covid 19 pandemic. The pandemic situation brought about a different world order. People at large needed to stay indoors and maintain a safe distance when outdoors. The digitalisation of the banking sector helped peopleeven those with small businesses to flourish. According to some, the lockdown that was imposed came as a blessing for the digitalisation of the Indian economy. However, there are two sides of the same coin. It wasn't a rosy picture for everyone. All these issues, and more have been addressed in the papers included here. I am thankful to the Bank of Maharashtra, and Union Bank of India, Jaripatka Branch, Nagpur for the support extended to this seminar. I also wholeheartedly thank our management body, Arya Vidya Sabha, for their constant support and encouragement.

> Dr Shraddha Anilkumar Editor , Principal DAKMV

# **MESSAGE**



It gives me immense Joy to know that Dayanand Arya Kanya Mahavidyalaya is organizing a National Seminar on "Digital Banking." for creating students awareness.

Digitalization is the new wave influencing all fields of the world The field of banking is no exception and is undergoing a transformation. With increasing digitalisation maintenance of quality and security becomes all the more important

I am thankful to the Bank of Maharashtra, and Union Bank of India, Jaripatka Branch, Nagpur for the support extended to this seminar.

I congratulate the Principal Dr Shraddha Anilkumar, convener of the conference and all the staff members who have worked hard for its success. I wish the seminar a grand success.

Shri Ashok Kumar Kriplani

President, Arya Vidya Sabha

# **MESSAGE**



The Covid 19 pandemic has changed the world order in the past 2 years. The world has had to change the way it worked earlier with everything going on line.

The topic of the Digitalised Banking is very relevant in the present times.

The entire staff of Dayanand Arya Kanya Mahavidyalaya has worked hard under the mentorship of the Principal Dr Shraddha Anilkumar to make the seminar a grand success.

I am thankful to the Bank of Maharashtra, and Union Bank of India, Jaripatka Branch, Nagpur for the support extended to this seminar

I thank all the participants for their contribution towards the success of the seminar.

**Shri Ghanshyam Kukreja** Vice President , Arya Vidya Sabha

# **MESSAGE**



The main aim of the seminar is to create awareness and healthy discussions among professionals, academicians and research scholars on major issues related to Digitalized Banking.

This National Seminar is a vital step towards understanding banking in India in a global perspective.

I appreciate the initiative taken by the Principal Dr Shraddha Anilkumar and entire team for conducting such a relevant Seminar, which will benefit the students.

I am thankful to the Bank of Maharashtra, and Union Bank of India, Jaripatka Branch, Nagpur for the support extended to this seminar

I also extend my heartfelt gratitude to all the participants for their enthusistics efforts to make conference successful.

Shri Rajesh Lalwani

Secretary, Arya Vidya Sabha

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# **CHAPTER - 1**

# DIGITAL BANKING- UPI PAYMENT METHOD ACCEPTED BY CONSUMERS AND OPPOSED BY STREET VENDORS, CASE STUDY OF THE AREA VIDYAVIHAR AND GHATKOPAR

## 1.Priyanka Gupta

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#### Abstract: -

As we know Banking is one of the emerging and fastest developing sectors in the Indian economy. The UPI is developed by the NPCI and instead of a bank account number and IFSC code, the virtual payment address is used to pay through the UPI. NPCI has maintained that while there is no daily limit on the number of transactions, the utmost amount of fund transfer that is possible per day is 1 lac Rs. Some UPI apps like SBI Pay and WhatsApp pay only allow 20 transactions per day which are also enough for regular use in the everyday life of the users. This research work is based on primary as well as secondary data. This research has some limitations like the information given folk might be biased because some of them might not be interested in providing correct information

**Key words:** - Street vendors, digital banking, UPI payment, consumers behaviour.

#### Introduction: -

At the time of independence, the banking industry was weak. The whole banking sector was in the private sector and the credit requirements of agriculture, economics, and other needy sectors were ignored. The period soon after independence posed several challenges to the Indian economy. Then our honourable Prime Minister Shri Narendra Modi took the initiative of digitalization With Ravi Shankar Prasad S. S. Ahluwalia on 1 July 2015. In simple words, digital banking or digital payments are made when goods and services are purchased through an electronic medium. instead of using cash or cheque, digital payments are preferred. During a cashless economy, all transactions are administered using different types of payment methods and it does not involve the physical use of money. A Digital Banking Unit (DBU) might be a specialized fixed point business unit/hub housing certain minimum digital infrastructure for delivering digital banking products and services as well as servicing existing financial products and services digitally, in both self-service and assisted mode at any time, all year round, consistent with the RBI. As we all know Banking is one of the emerging and fastest developing sectors in the Indian economy. The UPI payments or Unified payments interface could also be a payment mechanism that allows instant money transfer without bank details. The UPI is developed by the NPCI and instead of a Bank Account Number and IFSC code, the virtual payment address is employed to pay through the UPI.

### **How to Use UPI Apps?**

If you haven't already started using a UPI app or a Unified Payments Portal (UPI), then it's not something really difficult. So, if you are wondering about "how to pay using UPI?" then you need not worry! Here first, you will be need to register yourself and create a unique UPI ID/VPA. You can register for UPI before using the payments system with the help of any UPI-enabled bank

mobile application or third-party application. After the registration is finished, you can then start using UPI to send and receive payments.

# **Objective: -**

To study whether the street vendors are comfortable with online banking / digital banking or not and what do they prefer more cash or online payments.

To study the customer view on digital payments, and to know they are more comfortable with online payments or cash payments

# Research methodology: -

In this research, the methodology section indicates how we conduct the research. This includes data collected from people, samples of study and methods covered in primary research. So, we mention below the detailed information about it.

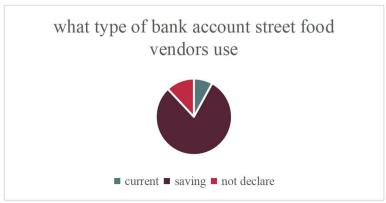
Primary data: The data is collected by the survey method. The survey has been done through a questionnaire by interviewing method for street vendors view and by Google forms for consumer's view

### Limitations of the study may be: -

- 1) This study has been conducted purely to understand customer satisfaction of digital banking services.
- 2) This study is only limited to Indian banks.
- 3) Some of the respondents of the survey were unwilling to share information.
- 4) The information given folk might be biased because some of them might not be interested in providing correct information.

**Data analysis:** - Following is the data analysis of the street food vendors: -

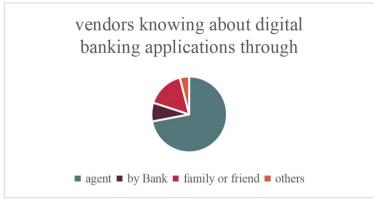
• What type of bank account do they use?



(Source from primary data)

From the above pie chart, we can observe that street food vendors normally use their saving account for their business and there are very rare cases of having current account. The reason for having a saving account is normally small street vendors do not register their business so they don't have current accounts.

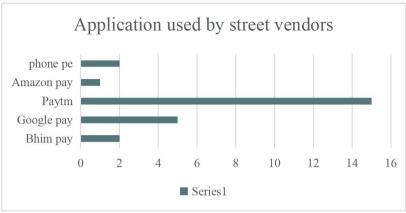
• How do the street food vendors come to know about the digital banking application?



(Source from primary data)

from the above pie chart, we can observe that street food vendors were encountered by the agents of different companies like Amazon pay, pay tm, Google pay to open their digital account in the particular application there are very few vendors who were approached by the bank or their family members to adopt digital banking.

• Which app do they prefer for online banking?



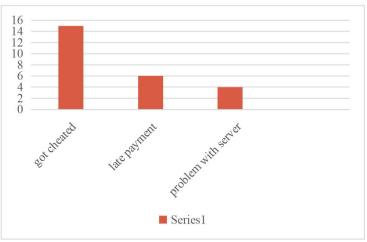
(Source from primary data)

most of the street food vendors were approached by the Paytm agents. These agents were appointed by the company to open accounts of the people who are not using

online payment methods or are not aware of Pay tm. They teach them how to use their application and also provide the speakers to small business and Street vendors who face obstacles while receiving online payments. But charges have to be paid for installing speakers.

Other applications like phone pe, Google pay, Amazon pay, are not that famous among the street vendors

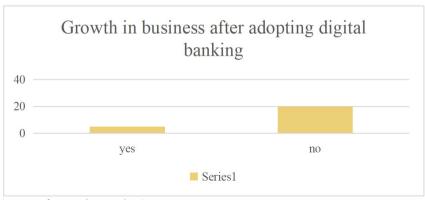
• What are the major reasons street vendors to avoid online banking?



(Source from primary data)

More than 50% of the street vendors complaint about getting cheated by the customers through digital payments. Sometimes the servers are down so it is difficult to pay through the applications. Late notification of payments is also a big issue faced by vendors

• business after adopting digital banking?



(Source from primary data)

Only 5% of vendors said that they have seen a growth in their business after adopting the digital banking options like Paytm and Google pay. Others said that there is no such growth after providing the digital payment options but they have to pay extra for the speakers provided by the companies and that is a kind of loss for them.

• When Street vendors buy their raw materials from wholesale market which type of payment they prefer?

100% of street vendors said that when they purchase goods from wholesale market, they prefer to opt for cash and cheque

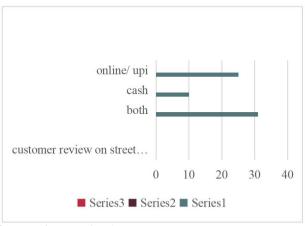
• Literacy rate between street food vendors?

After considering the whole research it was observed that the majority of the street food vendors are literate. But they are not good with English and the latest technology.

UPI payments have made it a possibility for you to transfer a small amount to your vegetable vendor in a matter of seconds. Think Paytm or BHIM cards hanging on the local grocery store replacing the trouble, you went through earlier to get a proper change. Think of the less time spent in the ATM lines.

Going cash-free removes many hassles from your life and makes everything smoother in the age of digital India.

# Following is the data analysis of the customer point of view: -



(Source from primary data)

Most of the purchasers said that they use both the method of payments that is UPI as will as cash. If there is an option of payment, they will give more preference to online over cash payments. Customers also face some problems while using online banking methods. If there's any problem while transferring the payment it takes more than 24 hours to get that money back into your account. There are some restrictions over the number of transactions. Also, a user can only transfer up to 1 lakh rupees per day in UPI apps but in some apps like BHIM pay, this amount is RS 40000. SBI pay and WhatsApp pay allow you simply 20 transactions per day.

# **UPI** apps preferred by the customers: -

As we saw Paytm is legendary among the street vendors but in the case of consumers Google pay and phone pe are the two most preferred UPI apps which provide them with good service according to the customer. Many of them also said they're very lazy to carry cash and they have a fear of getting theft so they prefer the UPI payment method.

#### Problems: -

- 1. Request Money fraud Many fraudsters trap individuals who don't know that for receiving money on a UPI platform, one doesn't need to scan a QR code or enter the UPI pin. The hackers request to scan some QR code and enter their UPI pin to receive a prize, leading to frauds on the UPI platform
- 2. Security The UPI pin only consists of 4 to 6 digits, which should be elongated for more security.
- 3. Half education When people aren't aware about UPI platform. There are chances to get cheated by the fake websites

## • Suggestion: -

Suggestion given by the consumers and Street vendors to enhance UPI apps: -

- 1. Customer service is weak and they have to work on it. People said that the payment wasn't successful and they have to wait for more than 24 hours to get the payment. Sometimes there are glitches in servers which creates a huge problem.
- 2. Every bank may need certain rules for sending SMS. I've seen many cases where SMS is not sent when the transferred amount is very less like 10 rupee or 1 rupee. If All Bank and governments make a choice on compulsory SMS on every transaction then it will be a great help.
- 3. There should be some updates and services provided to the users to make them feel secure as still many of them feel that digital banking is unsecure.
- 4. Many of them aren't very aware about it so they think it's not secure so proper knowledge must be provided to them through short clipping or advertisement.

- 5. There should be a voice control on UPI apps for the people who are divyang / disable.
- 6. A fake website alert system should be created by the UPI apps to regulate fraud.

#### Conclusion: -

In the end, the conclusion is that street vendors are not much happy with Digital Banking because they get fraud/cheated. Due to Digital Banking, they don't have money in their hands to spend and they are not comfortable with digital banking. They find it very confusing when it involves UPI apps. The government has to take some initiative and spread more awareness about online banking and UPI. When the road vendors buy their raw materials, they need to pay in cash which is a disadvantage for them. Though many of the road vendors are literate but understanding new technology is difficult for the elder generation which is 40 and above. On the other hand, consumers are very comfortable with digital banking, they're okay with both cash and digital transactions. But the elder generation (age group of 40 and above) believes that for huge transactions online payment is preferable, and for Petty transactions hard cash should be used.

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# Questionnaire for street vendors.

# Street vendor survey form

1)	When you started your business
2)	What type of bank account do you have?
3)	How do you do to know about digital banking and QR code
4)	What do you prefer more cash payments or online payments?
5) 6)	Which app do you prefer for online banking? Have you ever got cheated while online transaction?
3.5	What problems did you face when you started giving online services to customers'
	Are you comfortable with e-banking?
	What type of payment do you prefer while lifting goods from wholesale market?  After adopting online banking is there any growth in your business
10,	Acti dopting office bulking is decreasly growth in your business
11)	What type what type of service your bank provides
12)	What is your monthly income?
	How much have you studied?
14)	Do you expect any changes to be provided in online banking?

SK Somaiya College of commerce and arts By Priyanka Gupta Primary survey report

# **CHAPTER - 2**

# A STUDY OF FUTURE PROSPECTS OF DIGITAL BANKING IN INDIA

Dr. Amit S Nanwani

Assistant Professor Dept. of Commerce Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.

#### **ABSTRACT**

In today's world the economic scenario is changing very fast. At the moment Indian economy has taken a comprehensive form, Banking, Finance, Trade. Investment, Trading, Commerce, Marketing, Debt etc. is part of all economy. Banking system is the bloodline of any economy and banks are the trustees of public money. In the last few years, the banking sector has been undergoing a structural change. Challenges and changes are going hand in hand. Owing to technology and digital innovation the delivery of financial products and services is now more productive, efficient, and competitive. The unexpected prolonged continual lockdown in country during Covid-19 pandemic, the usage of digital payment platforms has increased multifold. Cash usage rapidly declined, and the emergence of payment systems by non-bank rivals sped up the pace of digitizing banking operations. No doubt, there are various challenges and risks to overcome for the success of digital banking in India. The Indian Government's efforts to encourage digital banking in India, budget for digital banking was also allocated. The RBI and NITI Aavog also took the initial steps to establish a regulatory track for digital banks. The banking of the future will be completely changed. Digital medium is the only way forward. For benefit of the government scheme can reach everyone then digital banking is the alternative. Young people now have more job options in this sector because to the prominence of transactions made through digital banking. Youth with technical talents in this area will be increasingly in demand in the future days. Digital banking also contributed to the delivery of an improved customer experience, which in turn led to an increased rate of adoption. Smartphones and Aadhaar are playing crucial roles for paperless banking system in India. This study aims to study the future prospects of Digital Banking in India. The

study also attempts to analysis the budget for digital banking and job opportunities in Digital Banking in India. The entire research study and findings are based on the objectives.

Keywords: Digital Banking, Changing Scenario, Future prospects.

#### INTRODUCTION

Digital banks are exclusively online-based banks. This sort of banking offers all types of financial services but, unlike physical banks, does not have any branches. These days, the nation and the world are observing the popularity of this sort of banking. Experts in the banking industry claim that digital banking in banks is only getting started and it will rise at the skyrocketing speed. Aside from digital banking, all activities are being conducted entirely digitally in practically all modern banks.

At the present scenario Indian economy has taken a comprehensive form. Banking, Finance, Trade, Investment, Trading, Commerce, Marketing, Debt etc. is part of all economy. Banking system is the bloodline of any economy and banks are the trustees of public money. In the last few years, the banking sector has been undergoing a structural change. Challenges and changes are going hand in hand. Owing to technology and digital innovation the delivery of financial products and services is now more productive, efficient, and competitive. The unexpected prolonged continual lockdown in country during Covid-19 pandemic, the usage of digital payment platforms has increased multifold. People began and moved to digital banking as a result of the paucity of cash in the nation after demonetization; everyone heard about it and encouraged it.

While it is undeniable that the Covid-19 Pandemic has resulted in widespread digitization across businesses, the unexpected prolonged lockdown has also significantly boosted distant and online buying, which has raised the use of digital payment systems. Cash usage fell out quickly, and the development of payment technologies by non-bank competitors hastened the

digitization of banking activities. Some of the primary advantages banks may expect from digital transformation include addressing cyber security issues, the need to preserve consumer data, the opportunity to interface with digital payment systems, and shortening the response time for client requests.

Many activities in many different spheres of life have started moving online in recent years due to the Internet's growing use by people. Digital banking is one such field. Today, everything is done through digital banking while seated at home comfortably, whether it be to conduct a transaction, create a bank account, obtain account information, apply for a loan, send or request money, etc. Almost all public and commercial banks offer these kinds of online banking services in response to client demand and necessity. As a result, consumers are no longer need to wait in lengthy queues outside bank offices or to visit them in person.

Digital banking also contributed to the delivery of an improved customer experience, which in turn led to an increased rate of adoption. It is equipped with real-time assistance, personalized services, highly customized offerings, significantly shorter turnaround times, and 24x7x365 availability and accessibility.

#### RESEARCH METHODOLOGY

# The Objectives of the study

- 1. To study the future prospects of Digital Banking in India.
- **2.** To analyze the budget for digital banking and job opportunities in Digital Banking in India.

#### **Data Collection Method Used for Research**

The present study is qualitative in nature. The secondary data for the research paper has been collected from various reports, books, daily newspapers, magazines, websites, published journals, etc.

#### FUTURE AHEAD FOR DIGITAL BANKING

# **Union Budget and Digital Banking**

In addition to the last budget's announcement of 75 new "Digital Banking Units" in 75 districts. Also highlighted was Post Office's complete connection with the main financial system. The Indian Government's efforts to encourage digital banking in rural and semi-urban India are evident through the digitalization of financial services provided by post offices. There will now be a connection between the main banking system and more than 35 crore post office deposit accounts.

In order to benefit farmers and senior citizens in rural regions, Finance Minister Nirmala Sitharaman stated that 1.5 lakh post offices will be connected to the core banking system, this in turn will allow people to check their accounts online and transfer money to post office accounts and other banks. Being a part of core banking would simplify the administration of finances, making it much simpler to transfer money from post office savings accounts to bank accounts across the nation, which will significantly boost the digital economy in rural India. In order to encourage digital transactions and digital payment systems in rural and neglected regions, Finance Minister also set aside Rs. 1,500 crore last year.

For a more effective and cost-effective currency management system, the government has planned to use blockchain and other technologies to develop a digital rupee that would be issued by the Reserve Bank of India starting in 2022-23. India will now be among the nations issuing its own central bank digital currency (CBDC). A central bank digital currency will be a digital version of legal money issued by the RBI.

Finance Minister asked private and public sector banks to focus on digitization. And also added that if the benefit of the government scheme has to reach everyone then digital banking is the alternative.

# Proposed Regulatory Framework for Digital Banking

The RBI and NITI Aayog also took the initial steps to establish a regulatory track for digital banks. By enabling Digital Banks to provide the entire range of banking services, including making loans and issuing deposits, the proposed Licensing Framework establishes an environment that helps them overcome the limits. This would allow digital banks to provide cutting-edge, effective products and services with distinctive user experiences. The framework would also improve regulatory monitoring of digital banks, stop the unchecked repetition of business models, and safeguard customer interests.

# Job Opportunities in Digital Banking

For new-age workers, digital banking provides a wealth of options and career chances as a rapidly expanding industry. The focus on digital banking means that banks will likely require experts in the application of machine learning and artificial intelligence to create websites and apps, analyze data, stop cyber fraud, and other tasks. Young people now have more job options in this sector because to the prominence of transactions made through digital banking. Youth with technical talents in this area will be increasingly in demand in the future days. Any professional who wishes to break into digital banking, has to be familiar with fintech and related sub-technologies.

In addition to this, there will be additional employment openings for technical roles; such as an expert in managing digital databases, an online data manager, a cloud storage manager, a creative designer, etc. These positions in banks will exist in the upcoming years, along with the highest pay scales. Therefore, the time has come for young people who are interested in banking to start concentrating on learning the skills required to pursue a

career in the field of digital banking. It goes without saying that having a workforce that is technologically and digitally knowledgeable will be more important for both small and large banks in the future. This indicates that there will be plenty of work chances in this industry for young people in the near future.

# Smartphones and Aadhaar: crucial tools for paperless banking system

By 2020, as compared to 2016, the number of users is anticipated to double, reaching over 700 million. With the aid of mobile cellphones, which are becoming increasingly expensive, we anticipate that the majority of Indian households will be able to access high-speed internet, enabling them to benefit from both public programmes and private services. More and more Indians will be able to verify themselves, register accounts, and guarantee that they receive the services promised by the government by using the power of their Aadhaar and internet-connected phones.

In India, more than a billion individuals have an Aadhaar account, a cell phone, or both. Together, these two things can go places that even the majority of governmental organisations and commercial businesses cannot. They therefore significantly affect banking and finance. On the other side, Aadhaar is proven to be crucial in terms of delivering banking services, despite criticism for privacy issues. Aadhaar's value in terms of public welfare programmes and subsidies has already been established. In addition, we anticipate that internet consumption in India will double during the day and treble at night.

#### CONCLUSION

The banking of the future will be completely changed. Digital medium is the only way forward. Unique banking experience for customers, better management of both risks and regulations, the latest technology is the future of banks. Banks will have to connect with these modern technologies by adopting new

technologies like Blockchain, Artificial Intelligence, Machine Learning and Internet of Things (IOT). And only then will banks survive. The proposed regulatory framework would also improve regulatory monitoring of digital banks, stop the unchecked repetition of business models, and safeguard customer interests. The proposed Licensing Framework establishes an environment that helps them overcome the limits. For the benefit of the government scheme can reach everyone then digital banking is the alternative. Young people now have more job options in this sector because to the prominence of transactions made through digital banking. Youth with technical talents in this area will be increasingly in demand in the future days.

Digital banking also contributed to the delivery of an improved customer experience, which in turn led to an increased rate of adoption. It is equipped with real-time assistance, personalized services, highly customized offerings, significantly shorter turnaround times, and 24x7x365 availability and accessibility. Smartphones and Aadhaar are playing crucial roles for paperless banking system in India.

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# **CHAPTER - 3**

# THE BANKING AREA IN INDIA'S CHANGING FORM: FINANCE & MANAGEMENT

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#### **Abstract**

In India, the traditional banking area in India has now changed the new technology sector. Due to the new technology initiative, the centralized banking concept has existed more developed and the new services are being made available to customers. Today, thinking about the Indian banking area, there was a lot of changes after the independence. But the nationalization of Indian banks were made to reach the unity in the bank's statement. Today, the Banking can be divided into three sections as the classroom session of the Indian banking area.

- 1. The first stage of this is from 1786 to 1969. This was the initial format of banking. This caused many small banks in this phase.
- 2. The second step in this can be considered as by 1969 to 1991. Where can be banned by banks, nationalization and banking sector growth.
- 3. The third step in this is from 1991. These stages can be learned by economic liberalization, privacy and how results are taken.

# Keywords

Changes in Indian banking sector, Changing Flows in the Indian Banking Sector, Indian New Payment System.

#### Introduction

Indian banking system has changed many types of changes in the Indian banking area. The banking process of banking transaction system is very easy for this type of banking trend. This trend has been included in the following. There are many new payment facilities available in the Property Payment Transfer of the country, and today, the benefit of RT G S, is still visible in the customer. Today, there are a large number of payment transfers that are replaced by the following methods. This payment is beneficial to both the individual transfers and the method is most likely to be made from customers. Today this facility has been started in more than 100,000 branches of nationalities and the cooperative banks of the country, and its remote profit is visible to the customer and the bank. While thinking of financial sides, economically behavior is focused on this element. However, the other side of this topic can say that the purpose of economic development is final and important. This process is very important in the process of financial development today. We are saying that the state is in the place where the transactions are made. However, there is no meaning that the bank does not mean to be transacted. The Indian Bank of Business looks sorted in two places in this place. In it, the first classification appears in the Indian coin market and classification of the Indian capital market.

# The Indian Capital Market

The Indian capital market is the main development process. When you are saying that a country's economy is developed. So that financial arrangements in that economy are developed. It is necessary to realize this in the true meaning. Finance is the money that is taken by loan or taken. It is necessary to provide a financial idea or money to meet different needs of humans. However, it does not have the availability of this fiscal at every time. In such a system, he can make money arrange through the bank. The need for such a devotee is a part of the needs of the human needs. It can

be called financial arrangements. The finance market is the market where the transaction of money is. The period is considered in the market. Indian coin market arrangements are the short term in the market or less than the month of the month and all bank transactions in India.

#### The Indian Coin Market

The Indian coin market also includes organized sector as well as unorganized sector. The organized area includes lender, Saraphi sandwail, bank financial institutions. The organized area involves businessmen banks. For example. Public sector banks, private sector banks, co-workers in the field of foreign banks, foreign banks etc. In this, all the simple behavior is for this period for thirteen months. However, this period can be for 15 to 18 months for agriculture. The Indian capital market is executed for the lastterm fund in the market. Therefore, such a market is called capital market. The transaction of more than one year is done in the capital market. Generally, the period of a period of five years of time is considered a long-term transaction to the period of medium-car treatment and twenty to twenty-five years. The Indian capital market includes the following organizations. Merchant Merchant Bank, Institutional Positions Bank. Instructions Companies

# What is the Theoretical Concept Bank or Axis?

"Bank is the amount set up to keep the money back to the customer who is set to protect money." According to the banking regulation of 1989, the bank is the use of the bank, to give money to pay or pay to pay money, draft, order and other ways by deposit to deposit on the terms of return to the order of return to the terms of payment. Classification of Indian banks is done in the next two types. A) organized banks b) Unorganized banks is the classified banking organizational banking area is a type of banking network. It can be said, RBI for this (RBI). India's highest bank. Under this control, all these banks are working. This includes all banks of

private sector, in the coastline area from public banks. Foreign banks are also counted in organized banking regions. Unorganized banks include the revolutionary banks, such as private lender, surf air pervades in these regions. In this type of unorganized banks, traditional debts and financial facilities in India are provided to the public from private pieties. Unorganized banks in such a vesicular voting are classified in this type.

# The Historical Background of Indian Bank

Business Bank of India was established in the 1770s in India This bank was established by the Alexander and Company to Calcutta. However, this bank fell off in 1832. In 1806, East India Company established the first Presidency Bank of 'Bank of Calcutta'. In the 1840, the second Presidency was set up by the Bank of Bombay. And in the 11843, the third Presidency Bank was established in the bank. In 1885, the banks of Allahabad Bank, ALIABS Bank of SIM was established. The bank was established on the basis of limited responsibility in the 1841. The bank is investors in the bank according to the limited responsibility. It is a responsibility of responsibility. This gives the capitalist to establish such types of banks. Puniab National Bank was founded in 1894 and it was the first bank to own the entire Indians. Reserve Bank of India was established by Reserve Bank of India (RBI Law 1934). RBI was nationalized on January 1st, 1949. Banking Regulation Act (Banking Regulation Act) was performed in 1949. By this law, all Indian banks were brought under control of RBI. According to banking company Act 1961, RBI got the right to repeat the banks. This improves the performance of the banks and the Indian banking system also improves. The bank of Bombay, Bangalia and Banagkata and Bangkata of Bank of Calcutta came up to 1914. The same imperial bank was established. SBI on 1st July 1955 Law of 1915 was implemented by possessing the Imperial Bank and was transferred to her State Bank of India. ADGAVERAM committee had recommended that in his report in 1954. According to the attached bank law 1959, 8 stocks of the 8

institutions banks sold. Today, all these bank are known as SBI's collaborative bank. In this, the Bank of the Bikaner and Bank of Jaipur had been renewed in the state Bank of Bikaner and Jaipur in 1963. 14 private banks were nationalized on July 19, 1969. Banks were selected for more than 50 crores for this. This action was made to supply loan to the forefront of financial power and to prevent the priority area such as agriculture, short-science, rural development. Six on the 15th April 1990, six banks were nationalized. However, the banks were nationalized for two more crores that are collected by banks that have been collecting. After the large financial change of the year 1991, the Reserve Bank of India gave the San Reserve Bank established new private banks in January 1993. Banks that were established by the beginnings were asked to be new private banks. Sun was the partial privacy of public sector banks in 1994. Accordingly, these banks were given a discount to propose capitalization by its own shares. Banking business was also open for direct foreign investment. Currently, there are permission to invest in India's private banks in 79% percent. This condition is given to the government of government banks in government banks or the government in the public sector banks. Banks are called Scheduled Banks, which are included in the second schedule of the BBI law, which is included in the second schedule of the 1934. For the following criteria are left for this. Bank stakeholders and reserve funds should not be less than five lakh rupees and work for the interest of the depositors. Scheduled banks include SBI and her partner banks, nationalized banks, regional rural banks, private scheduled banks, foreign banks, state co-operative banks. Non-scheduled banks are called non-scheduled banks to non-scheduled banks. These banks do not receive this facility of rebuilding RBI loans and reproduction letters. This includes organizations such as district intermediate, co-operative banks, primary colleagues. Working banks in India: Public sector banks owns an official in 51% or more. Nationalized banks of the SBI Bank Group Regional Rural Banks will be called public sector banks. Private sector banks fall in two sections of private sector banks. Private banks in India and foreign private banks. Private banks in India fall three types of private banks in India. Old private banks, new private banks and local regional banks. Banks who have been banned from national nationalization of the bank's 969, but their businesses are going to work as a bank's bank, called old private banks. In the 1993 3, 343 was given a guidelines for setting up new banks in private sector and to be organized to set up new private banks. Such banks are called new private banks. Local regional banks were established from 196-970 for the main purpose of collecting savings and rural parts of the country. These banks will be the three-consecutive districts of the current area and the stocks were the same as the number of five crores of the stocks. After foreign banks were given an opportunity to work in Indian fields since 1993 after the accepted attitude of the Indian economy. Currently foreign banks in different countries are working in India. All India first is first 1987, the ATM is started in the 1987. State Bank of India coming's. State Bank of India's law Act 585 performed on the year 1955 from the recommendation of the Gorewala Committee. And on July 1st, 1955 Imperial Bank was transferred by her name State Bank of India. The State Bank of the institutions that operates in the eight institutions has been merged.

#### State Bank of India

State Bank of India is working as a government trader bank. In this, India's government is 58.47% percent. The state's headquarters is at Mumbai. The State Bank official capital was initially 20 crores, in 1985, he was made in Rs.1000 crores in 2009, and Rs 1000 crores since 2009.00, and the highest bank in the world is the biggest bank, which is the biggest, the market has to make this bank a change in the qualifications of the customer and make a priority for customer interests.

#### Task of Bank

The state's goal is the following as follows, according to the same today, these banks need to be more people.

- 1. To reach banking business to rural and weaker element.
- 2. Successful Bank's Education Successful Policy Successful.
- 3. Providing loans to small industries.
- 4. Bringing the merchant banking middle under the control of government. State Bank is the largest bank in the country and the expanding of this bank is across the country's 22414 branches of state bank of India. The total of 30 countries are existed in the 205 branches state bank. The state bank has about 60,000 ATMs working in the country. Through this, the bank is giving your customers to the customers. Nationalized banks were nationalized for the effective implementation of financial planning and to reduce the private sector domination. In this, the bank was nationalized between 1969 These banks and 1980. governmental or countable as nationalized banks. Currently, eighteen banks are individually in India because Dan Bank is the recently-bank bank in the lately -merges Bank of Bododa. Regional Rural Bank of India, 1975 Mr. Narashihan Committee recommended to establish regional rural banks. The main purpose of this was to make the type of banking system in the countryside. According to, five territorial rural banks were established on October 2, 1975. Maharashtra Rural Bank and Vidarbha Konkan Rural Bank are working in Maharashtra. In the beginning of the co-operatives, the city was started to build cooperative banks in India in 1904, in 1904, the colleagues were organized in India. The Maharashtra State Co-operative Organization was performed in the laws of 1960. In this, the primary agricultural credit, District Co-operative banks, the state co-operative banks are seen. State banks have control over all banks in the state of the Cooperative Bank, but the state is the control of the Nabard.

#### NABARD Bank

Nabard information in Banks Information in Banks Information (Based on the Schivaraman Committee (Survival and Rural Development Review committee) of the government and 2013, said NABARD was established on July 12<sup>th</sup>, 1982. Nabard's headquarters were in Mumbai and the official capital of Nabard was 100 crores. They have now been Rs. 5000 crores. Nabard was established by this major purpose of supply. Rural industry and rural development is the preference of Nabard.

#### **Function**

- Working in the estimation of financial institutions in the functions.
- Definition to develop the Defense Faculty.
- Applying the telecommunications, checking and rebelling of regional rural banks of regional banks.
- Guidance and organization organizations that are providing credit towards the state.
- Training Keep them monitoring.

The tasks like these are in the work of Nabard.

### Two Decades in Indian Banking Areas

Two decades in Indian banking areas have changed in the first two decades in India's banking area. It has become very developed in the quality of the property, technology and rules. It has changed from physical banking, which includes the conclusion of the world-in and face-to-face dialog, which has been able to have a boring banking due to new era, contact unconnected technology. As a banking, want to join the Reserve Bank of India at the managerial level, you need to know the information of the implementation of immediate changes, immediate changes and transitional changes. You see here a macro picture of how the development of the banking area in the last few decades.

## The Changing Scene of the Banking Area in India

The changing scene of the banking area in India has played an important role in the size of the banking growth of India's banking area. From giving unprecedented customer experiences to the extraordinary profits in productivity. Especially, if you evaluate the phase of the usage after the notation, the finance industry has seen significant changes towards digitization; and its shareholders are now equipped to use technological technologies in their dispute. Financial Inclusion Including Financial Services is the availability and similarity of the opportunities to access financial services. It works as a major driver in the economic growth and development of any nation. The Government of India, actively promoting financial inclusion, from various schemes, in the follow-up. Increasing the financial services of India, some government schemes include:

- PMJDY
- APY
- PMVVY
- Stand Up India Scheme
- PMMY
- PMSRY
- Suknya Samrudhi Yojana
- JEEVAN SURAKSHA BANDHAN YOJNA

Includes various types of plans. The technology of modern technology is another important component, which benefits India's making the building in our banking. To include sophisticated technical measures, it was an important step towards using technology to increase banking area in 2002 to include the banking area. CBS has not only enabled bank-to-client interaction, then the fine, interest and maturity etc. are also comprehensive. In the past 2011, the digital era of the digital era, has been raised a quality for technical instability. Customer Experience There are currently some digitally-enabled government-approved banking platforms.

- UNIFIED PAYMENT INTERFACE (UPI)
- BHARAT INTERFACEFOR MONEY (BHIM)
- USSD Platform
- UIDPS

Enabled payment system Renewal of some banks in recent Banking sector, another change in the banking area in India's banking area is the structural form of structural form. The government is declining the number of public sector banks by announcing Mega Mergment. Then, the population of public sector banks in India is 12 Banks.

#### The List of Public Sector Merger is Available at (April 2020)

In 2013, Vijaya Bank and Going to be merged in Bank of Bododa, 6 SBI collaborators and Indian women are in messed up in the Bank State Bank of India. From April 2020, the United Bank of India and Oriental Bank of Commerce has been a merger of Punjab National Bank and has become the second largest bank in India's public sector. Since April 2020, Syndicate Bank has been merged to the bank. Alahabad Bank has been merged from April 2020 to Indian Bank, from April 2020, Agra-Bank and Corporation Bank of India is the merged in India's Union Bank of India.

### In the Financial Year 2022, the Upcoming Trends

In the financial year 2022, the upcoming trends to make up the dynamic needs of the upcoming trends customers, to be able to run the fifty-generation of the banking, supported by new-era technology such as APIs, customers will be able to make some uninterrupted, safe and fast payment. The presence of the companion of the fertility has become a world-generated change in the work of businesses and industries. Similarly, to ensure that corporate and retail customers get access to 24x7 banking services, there was a night-winter in the financial industry. Indians are also moving to digitized banks. You Gov, Internet-based Market

Research and Data Analytics Firm survey, surveyed 23% of the survey, has switched to banks that were digital friends or just digital. Also, 61% of GEN Z, GEN X, and Millennial 61% respondents are eager to go to the figural digital bank for services like remote banking experience, banking 24x7accessibility and banking accessibility. To complete the dynamic needs of the customers, the banking future requires a boost, including the newe-technology, such as the new-e-technology, such as the app, making unwilling, safe and fast payment. With the next trends that allow the banking industry to be bound in the next year, the value of financial systems will be a game change for efficiency, standardization and inter-definition industry.

## **Extended Digital Banking**

Digital banking is prevalent in the industry for several years. However, there are many experiences in the customer to have a real visit to India for many decades. Applying lockdown due to epidemic appears to be an urgent need for digitalization in banking and finance industry. Banks will continue to increase their digital banking offer on retail, but more than corporate customers will get more to the corporate customers and the fast-integrated customers and paperless trade customers, and the other customers will be able to go to the paperless trade, banking and other services.

## Many Emerging Technology

Bank-customer relationships such as the emerging technology API (application programming interfaces) and AI (artificial intelligence) will remain defining it again to re-manage the relationship. APIs can change customer experience with improvements with transparency and performance in accordance with their ability to deliver real-time services. People are becoming more aware of the appropriate banking methods and the ability to quickly understand

their financial status, the ability to quickly find the option and to take good financial decisions, these systems are expected.

#### Standardization of Financial Systems

Standardization of financial systems is to make a company's implementation of general standards such as the ISO 2022 for the country and the nursing payment for the country, and the second is a step towards providing a better payment transaction experience. By standardization, the goal of the banks around the world is to be compatible with the business's performance and the companion that is progressively. By equipped with more rich, structured and meaningful data, financial institutions will be able to improve the analysis directly by the processing ratio while reducing manual intervention. This will allow more accuracy and compliance rules to improve and improve cheating prevention.

#### **Rejection and Secure Payment**

Customers demand unit, secure affordable and quick payments. Funny payments give competitive edges to financial institutions. Banks can experience the efficient payment transaction using the full capacity of emerging technology such as the order of their and the blocks, smart contracts, token, internet off Things (IOT). Cheating restrictions and compliance solutions are also the indigenous parts of the payment system and must have a strong security system for financial institutions. Due to continuing to execute emerging technology and standards, banks will try to reinterpret customers' experiences by ensuring more expenditure and process performance. As the world is moving to digital solutes, it is essential to create an easy digital journey with a customer. Therefore, it is the next way to create dynamic, value-driven ecosystem with strong security infrastructure responding to real needs of real-time customer needs.

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## 2019 Banking Industry Outlook: There is A New Type of Word in the Optimism

Banking industry for banking and capital market. Perhaps there is no good time to change. Financial basic principles are strong, the regulatory weather is friendly and changes technology is more easily available, powerful and affordable.

## 2019 Banking and Capital Markets Outlook: Reinforcement of Revision - How is Corporate Banking Changing?

Global corporate debt is on the upper way, in which the US area is in the lead. Revenue from corporate debt during 2015 to 2017 has increased by 19.5 percent in America. On the contrary, corporate loan in the EMEA region has dropped by 0.8% per cent. Because American companies raise their market share, the speed of financial recovery has stopped giving an EMEA corporate debt. Meanwhile, in the Apac area, revenue in corporate loan has increased by 5.8% per cent. While the Asian market is expanding, competitive mobility and opportunities in APAC's corporate banking landscape have been significantly increased. Corporate loans in the United States seem to be advantageously relaxing the relative credit standards. Since June 2018, Senior Debt officer, Opinion Survey, 2009 debt of debt on the C & I loans have been relaxed. Apart from this, the OCC has also been released on its latest half yearly risk perspectives in the commercial credit underwritten methods. From the first quarter of the 2017, the increase of the number of extent of the outstanding credit card underwriter in 2018, the increase in 24% per cent of the outstanding credit under the underwriter indicates that the relaxing credit standards can already be problems. Similarly, the terms of the levied loan are also friendly for more borrowers, so that the levied debt market has gone ahead of \$ 1 trillion, gun junk is cooperating the size of the market.

### The Cyber Security Road Map: 2022

Cheer-in-law of the Cyber, cheer-in-law of digital banking and the digitization has entered a large number of banking, financial services and insurance). In India 2022 India will appear to be technology-driven transported and technology-affected to procedures in BFSI sector. Such a situation will guarantee a strong roadmap in which the cyber security plays the important role. In the 20 -1, the major crypto trends in 2021 and 2002 from the expected development festivals and 2022 they have to cum in the digital property miners and payment companies to launch their IPO in 2022. Then they can be applied almost all over the financial service, gaming, art or any other industry, and the blockage technology can be applied everywhere and there will be more222. Another year of technology emergence! 2022 This year has been taking a lot of expected with you. Despite the uncertainty of us, we hope that this year will be a complete recovery year, but one thing is certain, 2022 is the financial year of the finite and especially the inbox's year. By facilitating liquid crunch for medium-sized and small NBFC, the total economic growth can improve instantly in the new year, it was made mainly due to the tricks of the other way of the fellow illness and challenging lockdown for all professional areas. When entering the new year, the lack of liquidity and some new rules will continue to create challenge for NBFC. The January 2023, the Indian Reserve Bank of Vibration can be received by the boundary. To ensure longterm growth, the underwriting discretion is needed to maintain under grading discretion, there are similar consequences of all the areas with Covid-19 epidemic insurance industry. The insurance industry is complaining that the affirmative is affecting the benefit of the Civil Claims in the financial year 2020 - 2021, the 19408

Rs. crore and the combined ratio is 112%. Is this a new event? It would have been not to answer that it would have been considered.

#### **Existing structure: Corporate Houses**

Corporate Houses will be able to move the same to the same and firmness to take a project by going to a project, will be able to move forward such as planned or firmly, or will be competent for the housing and car loan department? If there is a later case, they should be available to the customer's low-cost deposits.

#### Would Bank - Finch Partnership

Would Bank - Finch Partnership creates an easy-financial opportunity for customers. Banks, insurance companies and property management organizations are accepting important variations. Prepare the infection and more skilled processes from the complex traditional technology environment that are not only for advanced rules, but not only the advanced rules, and the new-up-to-minded non-liner business model. How can the Criticism regulate? Part II does not need to start the regulation of technology. People have used chat applications for drugs pedaling, but never discussed whether the government should be fully banned on chat applications or not.

## **How to Controls Crypto Commodities**

How to regulate the crypto Most of the crypto currencies in the same time were originally working as a payment token. Since they have faced the challenges of Central Banks, who had the face of the violence of any of the universal authority of their sovereign authority, they have become orphans in their use. From the people we hear, the Government of India can classify their Crypto commodities. General awareness> Financial Corrections and Banking Innovation> The Bundle of Banking is financially in the banking and financial improvements and banking innovation.

## Trending in the Banking

In the recent years in the trending in the banking, the improvements and measures made by banks have changed many Indian economic environments. The biggest change appears in the financial sector where the banking area is the biggest player to be noticed. Therefore, the banking area is stronger than the pressure of the pressure and the competition. In this way, these trends in banking were shown very in the past few years. India now has a fairly banking area in which the various contracts of the contributions are contributing. In this way, this includes foreign banks, public banks, private sector banks and others. Reserve Bank of India is the major bank of all these banks.

#### The Technical Change in Indian Banking

The technical change in Indian Banking XI, the real-time gross settlement (RTGs) was started with the RTGS in India in March 2004 in March 2004. This is a proposal transfer system that by which the bank receives the information in electronic form to transfer funds to a bank account from one bank account to another bank account. The name of the funds in the system, the transfer of the funds in the customer's' accounts' in real time '. RTGS system is being continued by RBI and is feeding. All of these financial transactions and maintenance is taken. This facility is being run by the country by the RBI, by the RBI, from which it is being trusted, which is a quick-efficient way to transfer funds and transfers to various financial operations. In such a way, the money sent under this system are currently transferred. This facility takes money in two hours in the two-day.

#### E-checks

This technology has been developed in the United States that will take place of traditional paper checks in India. In this way, to include this method of e-check and to be compulsory, a negotiable

instrument has been included in the actual repair. Electronic clearance service

#### ECS

ECS is an electronic system that is used to give large amounts of payments and receipts. Payments must be equal to the amount that can be less and repeated. In this way, this facility is particularly governmental and companies, which provide profitable payments or gains.

### **EFT (Election Fund Transfer)**

EFT is a system to transfer money to one of the accounts from one's bank account. In this system, in the system, related parties to the payment to the bank and pay the cash and authorize the bank to transfer directly to the bank. The sender should provide the bank to the bank such as the recipient's name, account type, account bank, account number, account name, branch name and other details bank. So the amount of benefits will be ensured that the amount will arrive quickly and properly.

## **ATM (Automated Taylor Machine)**

ATM Automated Taylor Machine is the most popular method of India withdrawal. Customers can enable this service to withdraw 24 x 7 withdrawals. This allows customers to do daily bank activities without communicating with any people. Moreover, these facilities are also used to fill funds, utility bills etc. Other trends in the banking area include point of cell terminal, television and electronic data interchange.

#### Conclusion

In the banking sector of India, especially in the last two decades, it has been seen a change. In the case of the banking area, now many rules are changed by the general element, and it has developed a lot of quality of quality, technology and debt rules. The form of the Indian Banking Area has changed many of the

previously physical banking, which includes the same as the lastin and face-to-face dialogue of the customer, which is included for the parade identified parade, which is easily done by the unused banking language. Banking is as important as business, which has to be able to follow the rules of Indian central excellence to the elements that want to join Reserve Bank of India at the managerial level. There are many types of changes in the banking area, the immediate change and immediate change of transitional changes. In the last few decades, the development of the banking area is largely in the quantity. The Indian central excellence of the Indian central excellence has been very important in the right of the bank's growth of the banking growth of India's banking area in this banking area. This is included in this of all the factors of the unprecedented customer to get extraordinary profits productivity. Especially if you evaluate the phase of the usage, but the finance industry has seen significant changes towards the digitization. Today the shareholders in the banking sector are now equipped to use their disposal technology. It includes the economic inclusion process and the availability and similarities of opportunities to access financial services are available in the present. Today, the components appear to work as a major driver in the economic growth and development of any nation. The Government of India, actively promoting financial inclusion, from various schemes, in the follow-up. India has some government schemes to increase the financial services of India. participation of all these schemes is seen in the development of the Indian banking area. It includes the Prime Minister Jan Money Plan (PMJDY), Atal Pension Scheme (Apy), Prime Minister Age Vandana Scheme (PMVVY), Stand Up Minister Scheme, Prime Minister Currency Creating (PMMY), Prime Minister Security Insurance Scheme (PMSB), Sukanya Prosperity Plan, Life Safety Bonding Scheme, including the security bond plans, life security reduction plans. Exception Indian banking area is an exactly immediate area and has been reveniently in the field of changing the digital technology, it is changing. This is another important

component in modern technology, which is the benefit of India's banking area to increase their productivity. To include sophisticated technical measures, it was an important step towards using technology to increase banking area in 2002 to include the banking area. CBS has not only enabled bank-to-client interaction, then the calculation of fine, interest and maturity etc. is also made. Next, in 2011, the digital aggregation has been raised by a standard for the entrepreneur in 2011.

#### Conclude

These are the changes that are currently available to some of the digitally-enabled government-approved platforms today. In the Unified Payment Interface (UPI). India Interface for Money (BHIM), National Unified USSD Platform, Base enabled payment system etc. Including payment methods, the banking area is very low. Today, many banks are being replaced in large banks when the size of the banks are increasing. This shows that the extent of old small banks is changing and their performance is growing. In recent times some bank branches have been merged and another change in the banking area in India is the change of structural form. In this, the government is declining the number of public sector banks by announcing Mega Mergment. Then, the population of public sector banks in India is 12. In April 2019, Vijaya Bank and Dona Bank were in merged between Baddaada. In this, 6 new banks were merged as a partner as Indian collaboration in the Bank of India Bank State Bank of India. Since 1 April 2020, the United Bank of India and Oriental Bank of Commerce has been a merger of Punjab National Bank and has become the second largest bank in India's public sector. Since 1 April 2020, Syndicate Bank, Canara Bank has merged at the bank. Alahabad Bank has been merged from Indian April 1 on April 2020. Apart from this, from April 120, Agra-Bank and Corporation Bank of India has been merged in the Union Bank of India. This makes it difficult to increase the functionality of these bunks and more to increase the dynamic needs of the bank; the

budget of the banking will be able to run more than the digitization. Powered by new-era technology like APIIS. customers will be able to make uninterrupted, safe and fast payment. Digital banking in expanded digital banking relations is prevalent in the industry for several years in the last part. However, there are many experiences in the customer to have a real visit to India for many decades. Applying lockdown due to epidemic appears to be an urgent need for digitalization in banking and finance industry. Banks will continue to increase their digital banking offer on retail, but more than corporate customers will get more to the corporate customers and the fastintegrated customers and paperless trade customers, and the other customers, and the other customers will be able to go to the paperless trade, banking and other services. Today's emerging technology changes because of the API (application programming interface) and AI (Artificial Intelligence), the financial intelligence of the emergency technology will be defined again to APIs can change customer experience with improvements with transparency and performance in accordance with their ability to deliver real-time services. People are becoming more aware of the appropriate banking methods and the ability to quickly understand the ability to quickly understand their financial status, the ability to quickly find the option and to take good financial decisions, these systems are expected. Standardization of financial systems, in the global level of international systems, implementing common standards like global levels of ISO 2022 for the country's ISO 2022, is one more step towards providing a better payment transaction experience. By standardization, the goal of the banks around the world is to be compatible with the business's performance and the companion that is progressively. By equipped with more rich, structured and meaningful data, financial institutions will be able to improve the analysis directly by the processing ratio while reducing manual intervention. It seems that it will allow more accuracy and compliance rules and to improve cheating prevention. Customers

are considered unknown and secure payment facilities for financial and secure payment facility in banking sector. Funny payments give competitive edges to financial institutions. Banks can experience the efficient payment transaction using the full capacity of emerging technology such as the order of their and the blocks, smart contracts, token, internet off Things (IOT). Cheating restrictions and compliance solutions are also the indigenous parts of the payment system and must have a strong security system for financial institutions. Due to continuing to execute emerging technology and standards, banks will try to re-interpret customers' experiences by ensuring more expenditure and process performance. As the world is moving to digital solutes, it is essential to create an easy digital journey with a customer. Therefore, it is the next way to create dynamic, value-driven ecosystem with strong security infrastructure responding to real needs of real-time customer needs. Today is the top of the global corporate loan, which is in the United States of America. The revenue of the corporate debt during the 56 2015 to 2017 has increased by 195% per cent. On the contrary, corporate loan in the EMEA region has dropped by 0.8% per cent. Because American companies raise their market share, the speed of financial recovery has stopped giving an EMEA corporate debt. Meanwhile, in the APAC area, revenue in corporate loan has increased by 5.8% per cent. While the Asian market is expanding, competitive mobility and opportunities in APAC's corporate banking landscape are increased significantly. Corporate loans in the United States seem to be advantageously relaxing the relative credit standards. Senior loan officer of July 2018, by the 2009, the debt of US banks have been relaxed from 2005 c is allowed from CASE to 2009 and LOCK. The number of extent of the outstanding credit card underwriters in 2018, the first quarter of 2017, according to the number of extent of the outstanding credit related to the underwriter, indicates that the relative credit standards can already have problems. Hope to help these problems have been in the heavy reserve bank, and the good results will

soon appear. Today the terms of the levied loan are also friendly for more borrowers, so that the levied debt market has gone ahead of \$ 1 trillion, junk bond is giving a ball race. Banks are trying for Cyber cheer Road map for 2032 in 2022, and modern technology and digitization has been largely entered in banking, financial services and insurance. In India 2022 India will appear to be transported to technology-driven and technology-affected procedures in BFSI sector. Such a situation will guarantee a strong roadmap in which the cyber security plays the important role.

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## **CHAPTER - 4**

## DIGITAL BANKING CURRENT POSITION IN INDIA ,ISSUES AND CHALLENGES

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#### **Abstract**

The Covid 19 pandemic came as a shock to the whole world. Lockdown was imposed across the nation, The wheels of the entire economy came to a scrunching halt. It spelt the doom of many industries especially the banking sector.

Research reveals that this has actually worked a s a boon in disguise for the banking sector. The digital India campaign picked up like never before. Millions of people had no option but to use the digital technology to meet their financial requirements during lockdown. This not only meant a more active number of customers using digital banking, greater coverage and better-quality service by banks, but also boosted the banking industry like never before.

However, issues and challenges were not far behind, the new opportunity brought with it several challenges and issues. This research paper tries to focus on the increased use of banking and the impetus to banking sector post pandemic and how the pandemic has actually increased the scope for banking activities and the banking sector in general along with issues and challenges faced by banks.

#### Introduction

The pandemic induced lockdown and halt of all economic activities was seen as doom of the economy. But this has induced banks and customers alike to turn to digital banking. Traditional

banks have been replaced by phone banking and internet banking giving the customer a hyper-personalised experience. Surveys observed rapid increase in customer reluctance to visit branches and they are inclined to try out newer tools to meet their banking needs. Banks have been closing branches globally at an unprecedented scale. A large number of people staying at home are turning to digital channels, both online and mobile, to fulfil most of their banking requirements. As a result, traditional visits to branches and face-to-face interactions with bank staff have reduced.

#### Objectives of the study

The objectives of the study are as below

- 1. To see if number of customers using digital banking has increased post pandemic. This involves analysis of the pre and post banking figures.
- 2. To see of technology has improved volume and quality of banking services in India
- 3 To see if the new banking experience is preferred by customers as against traditional banking.
- 4 To understand issues and challenges faced by banks

#### Data Collection and Analysis

Data collection has been through secondary sources mainly from bank websites and newspaper articles and journals. Analysis of the data has been done through percentage analysis method.

## Shortcomings of the study

Though the data has been collected through authentic sources there is no sure shot method to pin point that the increase in number of customers using digital banking has been due to the pandemic. Also, there is nothing to substantiate the statement that digital banking has picked up due to lockdown.

## Findings of the study

## 1. Overall internet/mobile banking transactions in India

Year	Volume (in Lakhs)	Value (in crores)	% growth in volume
2021	1344959	44750	68.87
2020	796402	22713	49.5
2019	532731	12525	124.87
2018	236900	5270	

Source Reserve bank of India bulletin 2021

(Percentage growth in volume is in comparison to volume of previous year)

Digital Payments across India (in billion)

Year	Value	% growth
2022	71.95	64.49
2021	43.74	28.64
2020	34	46
2019	23.26	59
2018	14.59	

## Growth of online banking users in India

Year	Million users	% growth
2022	249	19.7%
2021	208	20.23
2020	173	21.83
2019	142	22.41
2018	116	

Additionally, research by Eonomic Times reveals that 51% of Indians use online banking channels 26% of Indian customers prefer to access services via their bank's website, and the same number would prefer to use a mobile app rather than talk to a human agent.

The internet penetration rate in India was 47% of total population in 2022

Internet users in India increased by 5.4% in 2022

(Source <a href="https://datareportal.com/reports/digital-2022">https://datareportal.com/reports/digital-2022</a>)

93% of respondents are satisfied by the level of banking service they receive 22% say they have never faced any issue

Source <a href="https://economictimes.indiatimes.com/wealth/personal-finance-news/what-percentage-of-indians-use-online-banking-channels-heres-a-survey-">https://economictimes.indiatimes.com/wealth/personal-finance-news/what-percentage-of-indians-use-online-banking-channels-heres-a-survey-</a>

Challenges and Issues faced by banks

Subscriber base for digital transactions has improved rapidly owing to Digital India campaign; higher availability of bandwidth,

cheaper data plans and competitive pricing for smart phones; Smart phones will spiral Smarter banking.

#### 1. 'DISC' consumer

Customers that are digitally native, intelligent, social and connected (DISC) the best of services and convenience without wanting to bear additional costs. This entails banks losing customer base due to competition from other banks.

#### 2. Best of both worlds

Customers increasingly seek the best of both worlds option. They use digital banking for small value transactions but also use the physical facility of a bank for example enhancing their credit card limits and or discussing home loan options.

New age banking involves not only providing an up-to-date digital platform but at the same time cost of maintaining a physical bank as well thus increasing costs for the bank

Unsurprisingly enough, the proliferation of digital banking technology has not diminished the number of (or significance that) clients place on transacting inside an actual bank.

In fact, per RBI data tracking data, the volume of transactions in digital banking throws up interesting trends: Customers visiting branches for activities continues to be on the higher side but for higher amounts. At the same time, small value transactions continue to flourish through digital wallets, internet banking etc.

### 3. Transformation Journey

Winning digitally loyal customers is a challenge. Providing new products and a personalised banking experience entails costs. The question a bank faces in such a transformation journey is not the 'how' or 'what' but why?

## 5. Cyber security

One of the largest challenges for digital banking transformation initiatives has and will remain the ability to solve security issues at scale.

Today's banking environments heavily draw upon collaborative ecosystems — meaning, hundreds and thousands of networked computers and other connected devices. Add Social, Cloud, Mobile and other channels into the continuously evolving mix and we are talking about managing financial vulnerabilities on a never-before seen scale.

In fact, today it is the digital banking transformation that powers the Cyber Security Industry to continually create stronger security and compliance solutions capable to scale on demand. No matter how the cyber security and banking technologies commingle tomorrow, the number of digital transactions will be influenced by how secure (and how alone) we feel in our 'digital homes' today.

## 6 Risk of digital lending

Digitisation has also influenced lending. NBFC s have entered the business along with banks by the end of 2020 loan disbursement went up by nearly 12 times, though private banks and NBFCs playa amajor role accounting for 55 per cent and 30 per cent of loans disbursed through digital channels, respectively, in 2020.

The major challenge is the lack of a regulatory framework for disbursement of digital loans.

Lack of safeguarding mechanisms against fraudulent lending platforms

And lack of adequate monitoring mechanisms.

The onset of digitisation and transformation in lending has also led to a spurt in digital lending applications sponsored by nonfinancial services entities or non-regulated entities resulting in unethical business practices, mis-selling, cybersecurity and data privacy concerns. Some of the key challenges of the current digital lending landscape include:

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- <a href="https://datareportal.com/reports/digital-2022">https://datareportal.com/reports/digital-2022</a>)

## **CHAPTER - 5**

# DIGITAL BANKING – A FUTURE PERSPECTIVE

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#### **Abstract**

The banking system has always been at the centre of the crises, both in the 1930s and in 2008, but during the pandemic period, it faced a crisis that was related to systemic health issues. In the previous crises, banks were considered part of the problem, but this time they are perceived as part of the solution. With the advancement of technology, the banking system has adapted and continuously reinvented to keep up with customer expectations and the need for cost reductions. Consumers are being provided better facilities related to carrying out their transactions by means of the internet, ATM machines, or electronically or virtually in lieu of personally or physically visiting the branches of the bank. Banking now is not just limited to the physical transactions in banks but has made its way into hand-held devices. This current phase of banking is aptly called "Digital Banking". Digital banking relies on high-level process automation, web-based services and Application Programming Interfaces (APIs) to provide banks and their customers with high levels of cost efficiency, security and flexibility. This change has left banks rushing to ensure that they have the technology infrastructure set up that can give start-to-finish contributions of administrations and items by means of advanced channels. This paper discusses the impact of COVID-19 on digital banking in India. The present study is descriptive and uses secondary data to study the challenges and opportunities presented by digitalized banking. This paper discusses the impact of COVID-19 on digital banking in India and its

stability in future years. This study is based on qualitative data and secondary data

**Keywords:** Digital Banking, Covid-19. web-based services and APIs. ATM

#### Introduction

## "Banking without Border"

In layman's terms, a digital bank is a bank that operates online and provides its customers the services that were previously available only at a bank branch. All the traditional banking services are available 24/7 on mobile phones, computers, and compatible smart devices, without the need for a customer's presence in the bank branch.

The E-banking was firstly introduced in India by the ICICI around 1996. Thereafter many other banks like HDFC, IndusInd bank, IDBI, Citibank Trust Banks, UTI, etc. followed the service. As today private and foreign bank had started capturing the market through E-banking hence the competition is heating up and the lack of technology can make a bank loose a customer.

With the entrance of Private sector and foreign banks, it is very difficult for commercial banks to survive in the banking sector. Commercial banks adopted initiatives and digital banking is one of them. Banks offered e-banking products and services like Automated Teller Machines, (ATMs), Internal Banking, Mobile Banking, Phone Banking, Telebanking, Electronic Clearing Services, Electronic Clearing Cards, Smart Cards, Door Step Banking, Electronic Fund Transfer, etc. to their customers.

Digital banking systems are much more flexible and allow banks to add and expand features much faster than traditional systems. Digital banking relies on high-level process automation, webbased services and APIs to provide banks and their customers with high levels of cost efficiency, security and flexibility.

Modern banking solutions enable a fully digital customer journey, generating real-time data streams and accelerating key analytics.

According to McKinsey, more than 65% of banks surveyed are exploring the potential of next-generation core banking platforms. The digital banking experiences offered by challengers are forcing incumbent banks to re-examine legacy technology in their core business.

#### Literature Review

- (1) Ghani, M. et al. (2017) mentioned in his article how the advancement of technology has reshaped the banking sector over the past decade. He conducted his study by empirically investigating the Technology Acceptance Model (TAM) of Structural Equation Modelling (SEM) towards one of the conventional banks (HBL) in Pakistan. He concluded in his paper that about 50% of consumers are adopting integration of technology and internet banking. Customer service, perceived usefulness, perceived ease of use, and customer satisfaction are the core determinants that influence the behavioural intentions of users towards adoption of internet banking.
- (2) Lata, P. (2016), highlighted in her study on the advancement of communication technology and the benefits of technology to the banking sector. She concluded in her study that technology helps the banking sector not only to serve the customer but also save time and secure the data, which is a good way of transmission of manual to technology.
- (3) Nurittamont, W. (2017), mentioned the customers' trust in internet banking and the intention of commercial bank customers. He conducted his study through a questionnaire of 400 respondents, using descriptive and analytical statistics. He concluded in his study that acceptance of technology resulted in perceived usefulness and ease of use, which had an influence on internet banking intention via customer trust.

- (4) Thi, N. (2020), discussed the factors affecting the intention to use digital banking in Vietnam. He used multivariate data analysis techniques on a sample size of 201 respondents who used digital banking. He concluded that customers' attitude towards the service is influenced by the factors of perceived usefulness and ease of use, which have a positive impact, whereas convenience, trust, and perceived risk have a negative impact on digital banking.
- (5) Revathi, P. (2019), discussed the difficulties that marketers face in the online banking sector. Transmission of traditional banking habits, security, and technical issues are the major challenges for online banking marketers to match through technology. She concluded in her study that, while the growth of online banking has been significant over time, online banking marketers must be prepared to face challenges from time to time.
- (6) Baljinder Kaur, et al. (2021), discussed the development of digital technologies and the current pandemic (Covid), giving a boost to digital transformation in the banking sector. To align the customer's satisfaction with technology, we conducted a structured survey on five dimensions of the SERVQUAL model on 222 valid sample sizes from Northern Indian Banking customers. She concluded that digital banking customers are satisfied with the services and reliability was a risk factor.
- (7) Dubey,A., et al (2022), mentioned in her study about the benefits of modernization of banking sector and the impact of COVID-19 on services of banking. In Pandemic period, customers were forced to access the digital banking services which result in increase of e-services of banking. He concluded in his study that COVID-19 has significant impact on the growth of digital channels.
- (8) Bhadauria, A. et al (2017), mentioned in this study on the challenges faced by the commercial banks with the inception of private sectors and foreign banks. Also highlighted the benefits (Convenience, Better Rates, Services, Mobility), Drawbacks (Loss

of Relationships, Complex Transactions, Security) and challenges (Security Risk, Privacy Risk, The Trust Factor, Customer Awareness, Less Internet Penetration in Indian Context). He concluded in his study that customers are less attracted towards Ebanking due to less awareness, low internet connectivity, online security of transactions.

## **Objectives of the Study**

- 1) To comprehend consumer attitudes toward digital banking.
- 2) to understand the stability of digital banking in future years.
- 3) To understand the contribution of digital banking to the economy of the country.

## **Hypothesis of the Study**

- H0: consumer preference has a significant impact on the stability of digital banking.
- H1: consumer preference has no significant impact on the stability of digital banking.
- H0 The stability of digital banking has a significant impact on a country's economic growth.
- H1: The stability of digital banking has no significant impact on a country's economic growth.

### **Research Methodology**

The research was conducted through a structured, closed-ended questionnaire tested for reliability, and data was collected online sources via Google Forms.

In the questionnaire,

## **Primary Data**

Primary data was collected randomly through the questionnaire in Mumbai by using a simple random sample size of around 82 samples.

#### **Secondary Data**

The secondary data or information collected from newspapers, research articles, magazines, reports and websites.

#### **Limitation of Study**

Study covered the population of metropolitan city of Mumbai only and not covered the semi-urban area. In semi-urban areas conclusion could be different from metropolitan city. Also, the data collected from the respondents could be biased.

The Questionnaire consists of a total of three sections, which are as follows: Section A consists of demographic profiles of the respondents such as gender, name, age, marital status, education, and details. Section B contains an awareness of various digital banking services. Perception towards digital banking services in Section C.

## **Data Analysis and Interpretation**

Data preparation involved transferring the questionnaire into an electronic format which allowed and facilitated subsequent data processing. The data was collected through a questionnaire targeting users of digital banking services in Mumbai city. The survey was self-administered over social media such as LinkedIn, verbal face-to-face meetings, and over the phone; and online communication using Zoom and MS Teams applications to users of the banking services. We inputted the data into a Microsoft Excel spreadsheet to determine the frequencies of the participant demographics and whether the variables (consumer preference) have a significant impact on customer perception towards digital banking services in the Indian banking market. The resultant 82

sample participants were fairly balanced between males (46) and females (36) with the largest number being between 18 and 30 years of age, followed by those between the ages of 18 and 25 (48) and over 25 (34). The majority of respondents were from the younger generation, inclusive of students.

#### **Conclusion and Suggestions**

The findings from the study showed that more than 50% of the respondents preferred digital banking services as compared to traditional banking services and were using banking services on a regular basis. This demonstrates that the stability of digital banking has a significant impact on a country's economic growth. They strongly agreed that technology is a blessing for digital banking. They also agreed that in future years, a rapid increase in the e-services by banks will help in increasing the economy of the country, which shows that there is a significant impact of the stability of digital banking on the growth of the economy of the country.

To maintain the stability in digital banking, banks need the infrastructure with high technology and to establish the securities to maintain the trust of the customers. To gain the consumers' trust and survive in the market banks should implement the same with the requirement of time.

#### Way Ahead

Further research can be done on the opportunities and challenges faced by the banking sector with the advancement of technology with respect to trust and control on the frauds due to digital banking services.

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## **CHAPTER - 6**

# DIGITAL FINANCE FOR GREEN PROJECTS: PROSPECTS OF ASSAM

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#### 1. Introduction:

The deteriorated environmental issues are presently threatening the global environment. Environment is the mutual relationship between land, water, air, plants, animal and people. The animals and people need to adjust with each other. Disparity among these creates unfavorable condition in the environment. The occurrence of any adverse change on the normal phenomenon threatens land, water, air, people and economy of the planet. At present these disparities are created by some not-so-environment-conscious people.

Digital finance is vital for present era. In this paper digital finance is suggested for green activity such as production and marketing. Digital finance must reach the producer and seller of green or environmentally safe products. Only then the aspects of safety of finance and environment friendly activity will be fulfilled.

Climate change is the biggest challenges of our time. The current environmental challenges are linked with technologies big data, institutional garbage etc. Digital green finance is an innovative solution to involve and extend sustainable finance and prospect in efficient projects. Green digital finance is the tool to finance initiatives with a sustainable development goal. The global financial system undergoing has immense changes through business innovation by digital finance. Digital finance which includes an ecosystem of technologies such as big data, mobile platform is a drive for environmentally sustainable growth.

Green finance is any structured financial activities that have been created to ensure a better environmental outcome. It is a system that creates values and transacts financial assets to serve the long term needs of an environmentally sustainable economy. Green finance is a method under the single goal of promoting a green economic transformation towards low carbon sustainable path. Green finance is the financing of investment in all financial sectors and assets that integrate environmental, social and governance criteria into investment decisions of a more sustainable economy.

Green finance relates to the investments that help improve the environment and climate. This activity is taken by private and public entities such as banks, governments, companies, nonprofit organization etc.

The main objectives of green finance is to take or start different types of activities and initiatives such as developing, implementing and promoting projects that can have sustainable impacts or sustainable business models. It has also objectives of making funds available for green projects. So green finance leads for a better environment. These activities could be loans or investment or any financial help.

Green finance helps in supporting green activities such as producing, marketing of green products. Currently converting to green products is an expensive one. Due to developing stage of technologies the cost of production is high as compared to similar products.

Impact of new technologies on the financing service industry is available. New methods of finance have arrived through device such as computers, tablets, Smartphone with the help of internet service.

It stores, transforms, process data, money electronically with utmost privacy and security.

Green digital finance is to promote and help green activities, projects, production and marketing through electronic process.

## 1.1 Objective of the paper:

The objective of the paper is to highlight some prospects of green activity such as production, marketing and other which are in need of finance. Digital finance is most vital form to reach and help the needy people of Assam and also can contribute for the ecofriendly activity and for sustainable growth.

#### 2. Benefits of green finance:

- 1. Helps in renewable energy and energy efficiency projects
- 2. As a tool of pollution prevention and control
- 3. Maintain biodiversity conservation
- 4. Mode of sustainable use of natural resources
- 5. Simple and secured mode of finance
- 6. Encouraging and adopting green finance in a large scale means environmental initiatives get priority over the conventional concepts.
- 7. Focusing on these types of financing helps to transparency of transaction.
- 8. Creating environment friendly jobs
- 9. This leads to better human life without spoiling nature.

### 2.1 Role of green finance:

1. To provide financing for environmental goods and service such as protection of biodiversity

- 2. To prevent, minimize and compensate the damage to the environment and to the climate.
- 3. To provide financing to the projects this encourages the implementation of environmental issues.
- 4. To provide finance for production and marketing of green products.

It is highly recommended that digital finance to green activity is much sustainable than the conventional process. Assam has so many prospects to local products as green or organic. For that, awareness is to be made first. The cultivation of paddy, vegetables, fruits are practicing organically by the people of Assam since long. But the cultivator needs financial help to compete with national and global market through green product, for that they are in need of financial help. As the green products are very costlier these days, digital finance and green activity are very relevant these days to finance easily to the producer and seller. Marketing channel also need to be developed. Therefore awareness should be created for green marketing too.

Green marketing is the study of all efforts to consume, produce, distribute, promote, package and reclaim products in a manner that is sensitive or responsive to ecological concerns (Dahlstrom, 2011). John F. Wasik defines green marketing as a guide to the complex issues involved in marketing and selling a product in an environmentally responsible way (Wasik, 1997).

The Green Marketing concept is designed not only for the present population but for the next generation too. So digital finance is most viable thing for such activity of production and marketing of green and local products. There is a growing interest among the consumers, producers and common people all over the world regarding protection of environment.

# 2.2 Green investments include the following:

- 1. Waste processing and recycling
- 2. Biodiversity protection
- 3. Climate change adoption
- 4. Renewal energies
- 5. Energy efficiency
- 6. Water sanitation
- 7. Industrial pollution control
- 8. Other climate change mitigation

#### 2.3 How to promote green finance:

- 1. Making needful changes in nation's regulatory framework.
- 2. Encouraging different sector to participate such activity or financing
- 3. Boosting more investment in green technologies
- 4. Motivating towards green projects

#### 3. Prospect green digital finance in Assam:

Assam has the prospects of green digital finance through organic tea and natural silk. Both have got GI registration. Assam is wellknown for tea because the key plantation of Assam is Tea. Assam tea got the GI (Geographical Indication) registration after the Darjeeling tea. Assam produces both conventional tea and organic tea. Tea gardens of Assam can be made more sensitive and responsive to ecological concerns through the process of conversion of conventional gardens into organic gardens. The input of organic farming are natural and it makes a contribution to human health, economy and the planet. The market for organic food is increasing as the consciousness among people is growing strong. No doubt the organically produced tea of Assam will make good health, bring employment opportunities and revenue from national and international markets. The production process is the great contribution from the grower to the people, revenue and environment.

Assam tea sector has the prospects of getting green digital finance which will be under clause of green technology. It is utmost need to produce green product for environment protection. The input of organic farming are natural and it makes a contribution to human health, economy and the planet.

Production of organic tea is a type of green project. So financing through digital finance in production and marketing of green tea is green activity.

Assam has other possibility of producing organic foods such as vegetables, rice, fruits, tea, silk etc. Extending finance for such area is known as green finance and the marketing is known as green marketing. Green Marketing is more relevant. This marketing deals with natural and harmless products. Producing goods organically involves high cost of production at present. So it requires huge amount of investment.

### 3.1 Finance for awareness programme:

Green marketing of these products is possible only when the awareness is created among the common people. The products and the method of production which are associated with green marketing should be confirmed as green. NGOs, educational institutions are must be finance to make awareness among the people and students. It will need money flow among the organizations, institutions and people. Digital finance is necessary in this regard.

#### 3.2 Finance for producing and marketing organic tea:

India is one of the world's leading producers of tea. The marketing of Indian tea has spread throughout the world's tea market. The yearly production statistics of Tea Board of India has proved the potentiality of tea market in India. The big as well as small tea producers of Assam have realized the value of Organic Tea and its international demand of marketing. It is not easy to

convert the conventional tea garden into organic garden. But Assam has a scope to make small tea garden as organic tea garden. Because the maintenance cost of small tea garden can be possible through finance. The strength of youth of Assam can be made aware and motivated to take step for producing organic tea. So the financial institution should make finance digitally for producing organic tea.

# 3.3 Finance for producing and marketing natural silk:

Assam silk has already extends its market to international level. Steps need to be taken for survival of sericulture in Assam and also for the expansion of the market. Sericulture is a village based traditional industry for the local people of Assam. The village people who are practically involve in this field are economically very poor. So they never think about the continuous production of natural silk and also unable to find proper channel of market to reach both national and international market. In this respect finance is most important. The international market of finished silk product is possible only when there is a parallel growth of rearing, reeling, spinning and weaving is maintained. development of modern electronic machines for reeling can attract local people to start the culture. Since, it is difficult for reeler to reel Muga silk yarn through hand machine, the Sericulture Training Institute, Titabar is providing modern machineries and training on sericulture practice. The private rearers near to such institution can use the machines for reeling and spinning of cocoon. Finance is needed for purchasing the machinery and availing training for innovative sericulture activity.

# 3.4 Finance for producing other green products:

1. Bamboo and Cane products: Assam has sufficient production of bamboo and cane. Furniture and other utility products can be produced by these two natural products. Digital finance may help in producing and marketing so many products. There are currently thousands of commercial bamboo products

on the market and new innovative uses and application are added every day. Construction of material of bamboo as medicine, musical instrument, fabrics, paper, utensils and so on. So these can be an industry or small business for the youth of Assam needs finance.

- 2. King chili and lemon: King chili and lemon is internationally established vegetable products of Assam. The farmers of cultivating chili and lemon are very poor economic condition. They need awareness and finance to help them to make the continuous production. Production of Pickle (*Aachar*) from chili and lemon is the prospect of industry
- 3. Banana stems and leaf products: Making of paper plate, water glass, straw, bags can be made from stem of banana. Banana leaf can be used to serve food for domestic and commercial purposes. Therefore the cultivation of banana has a immense opportunity for the youth of Assam to make it as a profession. Banana itself is a high demanded fruit in the market. Therefore a proper channels of finance is required.

## 3.5 Challenges of digital finance in green projects:

- 1. Green projects are very costlier these days
- 2. Lack of awareness of environmental issues
- 3. Negligence of environmental act

#### **Conclusion:**

Future of digital finance is a big subject which can change the financial industry. If it reaches the producer, seller and the customers of green products the demand will be fulfilled to maximum stage. Hence the digital finance and green projects is more relevant for today's world to save.

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# **CHAPTER - 7**

# DIGITAL PAYMENT SYSTEMS OF DIGITAL BANKING IN INDIA AND CYBER CRIME

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#### Abstract:

During the Corona pandemic, the Reserve Bank of India (RBI) and the Government of India are promoting digital transactions in the country. People in India make a lot of use of the Unified Payments Interface (UPI) for digital transactions. The National Payments Corporation of India (NPCI) is a comprehensive organization for the functioning of retail payment and settlement systems in the country. AT, UPI, Card, POS, etc. are included as digital financial tools. The use of this tool is not limited to taking deposits, loans, and investment services, but is also available in all areas including insurance, agency services, and distribution of financial products. Apart from this, there are many digital payment systems of digital banking in today's new era in India. In this research paper, the digital payment systems of digital banking in India and cybercrime have been studied.

**Keywords:** Unified Payments Interface (UPI) system, Digital Banking, Cybercrime, Digital Payment Systems

#### Introduction:

In India, 45 crore new accounts have been opened and 32 crore RuPay debit cards have been distributed in the last 8 years under the Pradhan Mantri Jan Dhan Yojana. Bharat net is also developing very fast, under this 5.75 lakh km. The fiber cable has been laid. It has done the work of connecting 1.80 lakh villages in

the last 8 years which was less than 10,000 8 years ago. India now has more than 1.15 billion phones and over 700 million Internet users, providing India with a digitally strong pool. India had the second largest internet user base with over 550 million internet users in January 2020. In the year 2021, 40 percent of the total global digital payments took place in India. Digital inclusion increases the potential for digital threats leading to cyber-attacks and crimes.

Cybercrime is a crime that involves computers and networks. Meeting any computer at a criminal place or committing any crime with a computer is called computer crime. The network is not involved in computer crime. Obtaining and misusing someone's personal information. Taking away or stealing someone's personal information from the computer is also a cybercrime. There are also many types of cybercrime such as spam email, hacking, phishing, putting viruses, getting someone's information online, or keeping an eye on someone all the time.

# Digital Payment Systems of Digital Banking in India and Cyber Crime:

Digital banking plays an important role in the current banking practice. Electronic banking is considered safe and secure as compared to physical banking. This ensures qualitative banking operations as compared to traditional banking. With the digitization of post-office-run banking services in this year's budget, it is a clear indication that the government is looking to promote digital banking in rural and semi-urban India. According to the government, about 2.9 lakh cybersecurity-related incidents were reported in the year 2020 regarding digital banking. As per the information reported and detected by the Indian Computer Emergency Response Team (CERT-In), the total number of cyber-attacks in respect of digital banking during the years 2018, the year 2019, and year 2020 were 1,59,761, 2,46,514, and 2,90,445 respectively. There have been security incidents. These

incidents included phishing attacks, network scanning, the detection of viruses, and website hacking.

Along with e-commerce, the growing popularity of non-banking financial companies (NBFCs) has also expanded the scope of digital payments. The percentage growth in digital transactions in the year 2020 is 46 percent as compared to the year 2018-19. The number of digital transactions has increased from 3,134 crores in FY 2018-19 to 4,572 crores in FY 2019-20. But various new cases of cybercrime are coming to the fore in digital payments. The following are the digital payment systems and cyber-crimes related to them

#### **Unified Payments Interface (UPI):**

Unified Payments Interface was officially launched by the National Payment Corporation of India (NPCI). This is done for instant inter-bank real-time transactions using Android App under RBI. UPI i.e., Unified Payments Interface is an interbank fund transfer facility, through which payments can be made on the smartphone with the help of a phone number and virtual ID. It is based on the mechanism of internet bank fund transfer. This system is controlled by NPCI. Users transfer money from UPI with payment in a few minutes while sitting at home.

Unified Payments Interface (UPI) is expanding the scope of payments. Along with this, people doing fraud have also started taking the wrong advantage of it. The number of cybercrimes in India has increased rapidly in the last few years. You can protect yourself from UPI fraud. You can keep it safe by not putting it on any kind of link or request. Pin cyber frauds lure people into their trap by offering tempting offers. He sends a link to people by luring them with different types of cashbacks. Through this link, they ask for your PIN to send a lottery or cashback. As soon as you enter the PIN on this link, then cyber criminals take away all the money from your account. While registering for the UPI service, take special care to make the password strong. It should

be such that no one can easily know. Do not share any QR code without thinking. Always keep in mind that QR code scanning is done for giving money and not for receiving.

# **Bharat Bill Payment System (BBPS):**

Bharat Bill Payment System (BBPS) is an integrated bill payment system that provides inter-bill payment service to customers online as well as through a network of agents. The system offers multiple payment methods and instant confirmation of payment. It is described as a centralized bill payment system for everyday bills. With the need for a bill payment system, various organizations decided to provide a single platform to make all these payments. Therefore, an integrated bill payment system called BBPS was proposed for which policy guidelines were issued by the Reserve Bank of India on November 28, 2014. With the introduction of payment systems like UPI, Bharat BillPay, and BharatQR, the Indian payments sector has witnessed significant changes in recent years.

### **Aadhar Enabled Payment System(AEPS):**

Aadhaar Enabled Payment System (AEPS) is to accelerate financial inclusion in the country; It is a bank-led model that allows online interoperable financial inclusion transactions at POS (Micro ATM) through any bank's business agent using Aadhaar thugs have invented a new way to clear authentication. Cyber the bank account of people. The gang commits fraud related to Aadhaar Enabled Payment System (AEPS). Cyber emptying the bank account linked to AEPS. The thugs obtain thumb impressions from the website of the Land Records Department. Withdraw money using AEPS-enabled machines. These vicious thugs are emptying the bank accounts of people by cloning their thumb impressions from the sale deed lying on the government website.

## **Unstructured Supplementary Service Data (USSD):**

USSD is a code used by GSM cellular telephones to communicate with the service provider's computers. It starts with code. and ends with # (hash) e.g., \*121# No internet connection is required to use it. It is session-based text communication without a store and forward mechanism, which is practical for interactive communication like banking or education. This service can also be used for mobile banking. Through this code, to know the balance of the bank account, transfer money to the bank account, and all the facilities of the bank can be availed.

# **Check Truncation System(CTS):**

CTS or Online Image-Based Check Clearing System is a check clearing system launched by the Reserve Bank of India (RBI) for faster clearing of cheques. In this system, a complete check is not sent to the paying bank for settlement of the payment order. Rather, only an electronic photograph of the check is sent. This online image-based check-clearing system works. In which the bank pays the money by looking at the information entered on the check and magnetic ink character recognition (MICR) data. RBI introduced this system in 2010.

Punjab National Bank has appealed to the account holders that some things should be kept in mind while filling the check for payment through a cheque. From time to time, awareness has been made by the Reserve Bank of India to curb banking fraud. To prevent fraud cases, it has been decided to change the check payment system from the new year.

Checks should be filled with Permanent Ink only. Dropbox must be checked before dropping the check. Care should be taken so that there is no overlapping of handwriting on the cheque. No blank space should be left on the check. By the way, old cheques, which are not used, should be torn apart and destroyed. The Reserve Bank of India (RBI) has decided to implement Positive Pay System for checks from January 1, 2021, to prevent banking fraud. This will also curb fraud through fake cheques. Checks with a payment of more than Rs 50,000 will have to be reconfirmed through this system. Through this system, checks can be issued for SMS, Mobile apps, Internet Banking and ATMs.

#### **Bharat Interface for Money (BHIM)App:**

The full name of the BHIM app is Bharat Interface for Money (BHIM). It is a mobile app based on the UPI (Unified Payment Interface) payment system developed by NPCI (National Payments Corporation of India). It enables real-time fund transfers. This app was launched by Prime Minister Shri Narendra Modi on 30<sup>th</sup> December 2016 in New Delhi. After demonetization, PM Modi launched the BHIM app for the convenience of the people. But this app has now become a new weapon for cybercriminals to commit fraud. The criminals get the people of the village to open bank accounts through fake IDs. After this, through the BHIM app, by changing the mobile number recorded in the bank's records, the entire amount is transferred to other accounts. Due to the change of mobile number, the account holder cannot get information about the withdrawal of money from the account.

#### **Internet Banking:**

Internet Banking is the system that facilitates the customer to conduct financial and non-financial transactions from his net banking account. Users can transfer funds from/her account to other accounts of the same bank/different bank using the website or online application. The customer uses the resource and medium to conduct financial transactions. The resource used by the customer can be an electronic device like a mobile phone, computeror laptop. The Internet is the medium that makes technology possible.

#### Credit Card:

Nowadays the circulation of credit cards has increased in almost urban areas. This is the most suitable mode of payment. But there is a fixed limit to spending and a fixed time is given for payment. The credit card option is the most in vogue on the Internet with the rise in online sales. It is more convenient and safer than cash payment. Under this, payment is guaranteed to the retailer, although phishing or fraud on the Internet also occurs through them

#### **Debit Card:**

A debit card is provided by the bank to its customers. The amount on this card is deducted instantly. In this, you can transact the amount as much as the amount is in the account. In this, payment can also be made through PIN and One Time Password.

#### E-Wallet:

This is today's electronic purse. E-Wallets are virtual wallets to be used on mobiles. In which we can keep money and use that money for online shopping or shopping at any store. Any financial transaction can be done through an e-wallet. Under which anyone can pay and receive payment from anyone. An E-wallet is a popular tool in today's digital age.

Most people are using e-wallets to make digital payments or online payments. Such people are being cheated. After the thug's phone, when people go to the app and open the link, their account information reaches the thugs. After that, the thugs take away the money from the account. Till now the thugs were luring the customers of the same e-wallet company by calling them. For a few days, customers of different companies are getting calls. They are being deceived. Earlier, thugs were calling PhonePay users in the name of rewards and cashback, but other e-wallet users have started getting calls. Because most people have e-wallets (Google Pay, Phone Pay, Paytm among others) on their mobiles.

To make e-wallets secure, the government has made KYC (Know Your Customer) verification mandatory for opening accounts on these wallets. The mobile number on which these wallets are used, it is also mandatory to provide an identity card to buy them. Also, at the time of opening the bank accounts where money is transacted through these wallets, it is mandatory to provide the complete identity of all the users. Thus, in case of fraud in any transaction, it is easy for the police to identify and reach the culprit at these three main levels.

#### Point of Sale(PoS):

Point of Sale (PoS) is the place where payment is made by the customer for goods or services. Sales tax may also be payable here. This can be an external store where the payment is made using card payment or a virtual point of sale, such as a computer or mobile electronic device. A nationwide network of fraudsters using fake Point of Sale (PoS) machines has been busted by cybercrime. For customers who make payments by debit card or credit card, criminals copy their data to the fake POS machine near them. By doing this, they steal the data and make fake ATM cards through it and then withdraw money from it.

#### Conclusion:

To achieve the goal of a cyber-secure nation, India will need a robust cyber security strategy that protects government systems, citizens, and the business ecosystem. This will not only help protect citizens from cyber threats but will also increase investor confidence in the economy. Cyber—security should be included as a high-decibel awareness topic in university and school curricula. There is also a need to put pressure on the authorities in the public domain to conduct regular vulnerability assessments and create necessary awareness about the growing cyber threat. A dedicated industry forum for cyber security should be set up to develop reliable indigenous solutions to check cyberattacks.

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# **CHAPTER - 8**

# FINANCIAL INCLUSION IN INDIA THROUGH DIGITAL BANKING AND UNIFIED PAYMENTS INTERFACE (UPI) SYSTEM

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#### Abstract:

Financial Inclusion can be defined as the process of financial services, where the weaker sections and low-income groups need adequate credit at an affordable cost, at the required time. Financial inclusion refers to universal access to a wide range of financial services at reasonable costs. These include financial services other than banking products such as; Insurance and equity products are also included. The essence of financial inclusion is ensuring the delivery of financial services, including; Bank accounts for savings and transaction purposes, productive, low-cost loans for personal and other purposes, financial advisory services, insurance facilities, etc. This research paper has studied financial inclusion through India's digital banking and Unified Payments Interface (UPI) system.

**Keywords:** Financial Inclusion, Unified Payments Interface (UPI) system, digital banking

#### **Introduction:**

More cases of cyber fraud are being registered in India than in any other country. In such a situation, digital banking in the country, and its strong security should also have been a priority. Today, the speed with which the incidents of cyber fraud are increasing and fraudsters are taking money easily from the bank accounts of the people has become a matter of serious concern. In recent years, India has made rapid strides in pursuing financial inclusion, driven by the Pradhan Mantri Jan Dhan Yojana and India Stack. However, access to credit remains a policy challenge, especially for the country's 63 million MSMEs, which contribute 30 percent to GDP, 45 percent to manufacturing, and 40 percent to exports. At the same time, they also generate employment for a large population. Financial inclusion has become a reality for Indians due to the digitization introduced by Jan Dhan-Aadhaar-Mobile (JAM) and Aadhaar during the last few years. This has only been carried forward by the Unified Payments Interface (UPI) which has been exceptionally adopted by the people.

The Reserve Bank of India has adopted a bank-led model to achieve financial inclusion and removed all regulatory hurdles in achieving greater financial inclusion in the country. In addition, to achieve the stated objectives, RBI has created a conducive regulatory environment and provided institutional support to banks to accelerate their financial inclusion efforts. Advised all banks to open Basic Savings Bank Deposit (BSBD) accounts with minimum common facilities like; No minimum balance, Cash deposit, withdrawal at the bank branches and ATMs, Receipt and receipt of money through an electronic payment system, and ATM card facility. KYC norms are relaxed and simplified to facilitate easy opening of bank accounts, especially for small accounts whose balance does not exceed Rs 50,000 and total credit in accounts of Rs 1 lakh per annum would not exceed.

Financial technology also called Fintech short, is leading the way for greater financial inclusion in India. It is an emerging industry that uses technology to improve activities in finance. does. Fintech organizations have a wide scope of business in India, especially in payment lending, personal finance management, and regulation technologies. The vast population of nations, the increase in the number of web users, and the government's efforts to digitize the country are bringing many new opportunities for fintech and new

companies. Financial organizations, new businesses, investors, and controllers are embracing fintech and using those opportunities to stand out from the competition and grow rapidly. In recent years, India has witnessed the growth of various new start-ups, regulators, and public and private financial institutions, which have made the Indian FinTech market the fastest-growing business sector in the world.

Reserve Bank of India has advised banks not to insist on introduction for opening bank accounts of customers. Banks are allowed to use an Aadhaar card as both identity and address proof. Simplified branch authorization policy to address the issue of uneven spread of bank branches, domestic scheduled co-operative banks are allowed to open branches independently in Tier 2 to Tier 6 centers with a population of less than 1 lakh, under general permission. Under the mandatory requirement of opening branches in non-banking villages, banks have been directed to allocate at least 25% of the total number of branches to be opened during the year in non-banking rural centers.

UPI is a payment system launched by NPCI, which facilitates instant money transfer between two bank accounts on a mobile platform, without requiring any bank account details of the beneficiary. Digital Bank It will be defined in the Banking Regulation Act, 1949, and will have a legal existence with its balance sheet. This will be in addition to the 75 Digital Banking Units (DBUs) announced by the finance minister in the Union Budget 2022-23, which are being set up to advance digital payments, banking, and fintech innovations in underserved areas. DBU is a specialized fixed point business unit or hub of certain minimal digital infrastructure to deliver digital banking products and services as well as facilitate existing financial products and services digitally in self-service mode at any time.

Financial inclusion expands the resource base of the financial system and plays its role in the process of economic development, by developing a culture of savings among a large section of the

rural population. In addition, bringing low-income groups within the ambit of the formal banking sector protects their financial wealth and other resources in urgent situations. It also reduces the exploitation of the weaker sections by moneylender moneylenders by facilitating access to formal credit.

# Financial Inclusion in India through Digital Banking and Unified Payments Interface (UPI) System:

The adoption of fintech technologies powered by artificial intelligence, machine learning, data analysis, process automation, and blockchain has changed the financial world. These advances empower fintech to drive vast measures of information through calculations designed to distinguish patterns and risks, counterfeit practices, spam information, and suggest corrective actions or actions. Fintech organizations use these innovations to help organizations manage and control activities such as managing and controlling their finances, meeting tax compliance, paying and accepting bills, and using other financial administrations as needed. Huh. They additionally empower clients, organizations, and entrepreneurs to have a better understanding of investment and purchase risk.

From its inception till August 2021, India has recorded a total value of Rs 100 lakh crore through UPI transactions. The UPI system has presented itself as a catalyst to take forward the Prime Minister's dream of Digital India and turn it into a cashless economy. There may be further possibilities for change. Suitable financial products have not been provided to large groups of the population such as farmers and dairy workers. This is where RBI's Innovation Hub is turning to provide a great consumer experience through safe, affordable, and affordable financial products.

The Reserve Bank of India (RBI) wants to make the Unified Payments Interface (UPI) more inclusive and affordable and accessible. This announcement of the central bank has been welcomed by the concerned parties. Creating a blueprint for secure and seamless access and operation of UPI through feature phones by the RBI may prove to be a technically complex and ambitious goal. But if the scheme is successfully implemented, it will double the reach of the UPI system to the people. At present, only half of the 950 million mobile users in India use a smartphone and only those people have access to the UPI facility. About 45-50 crore people using feature phones belong to rural areas and low-income groups. Internet facility is not even available where many of these people live and even if it is, it does not work properly. Such people are not able to take advantage of the UPI Facility. If the UPI service becomes accessible to these people, then this will increase the digital transactions in the country manifold and the UPI facility will reach every nook and corner of the country.

About 89 percent of transactions (by numbers) in India are in cash. This is slightly less than the pre-demonetization level but has improved compared to 2010. In 2010, almost 100% of transactions were cash. Cash circulation has increased by 17 percent as compared to October 2016. But amid the Covid-19 epidemic, there has been an increase in transactions through digital media. Over 4 billion (worth Rs 7.7 lakh crore) transactions have taken place through UPI in October this year. If the central bank can implement this scheme with quick speed and strength, then digital transactions will grow faster and the process of financial inclusion will also move forward.

The RBI is looking to set up a software and back-end data settlement framework for rolling out UPI-based payment plans for feature phone users. This arrangement will be necessary for those people who do not use internet services. Simultaneously, RBI wants to make extensive changes in the UPI system to simplify the process of small-sized transactions. The central bank will use an 'on-device' UPI wallet to ensure this. The RBI also wants to increase the size of the direct retail transaction limit through UPI in government securities and public initial issues (IPOs). It is

considering increasing the limit from the current Rs 2 lakh to Rs 5 lakh.

Financial inclusion has been left behind amidst the fast-growing UPI payments in India. The Unified Payments Interface (UPI) landscape in India has grown significantly in the last half decade and has grown even more in the last few months since the outbreak of the pandemic. From April 2020 to August 2021, the total value of UPI transactions in India stood at Rs 68.81 lakh crore, which is about 69 percent of the total value of UPI transactions done since its inception in April 2016. Ever since UPI was launched as a pilot by the then RBI Governor Raghuram Rajan in April 2016, the UPI system has seen a huge increase in the number of transactions and the total value for processing instant payments.

UPI recorded over 4.2 billion transactions worth Rs 7.7 lakh crore in October 2021. Due to the platform approach adopted by the Government while conceptualizing UPI, valuable payment products have been developed based on it. As a result, payments can now be made not only in a single click at retail outlets but also peer-to-peer which completely redefines the way money is transferred between people.

Direct benefit transfer through apps like PM-Kisan and microcredit facilities are also being provided to street hawkers through PM-SVANIDHI as a result of the 'All India vision' for financial inclusion. India has also taken steps to conduct its version of 'open banking' through the Account Aggregator (AA) regulatory framework enacted by the Reserve Bank of India. Post commercial deployment, the new framework is envisaged to enhance credit facilities amongst the groups which are hitherto unreached by these services. The success that India has recorded on the payments front is yet to be replicated in meeting the credit needs of micro, small and medium enterprises. The existing credit gap and trade and policy constraints suggest that there is a need to effectively leverage technology to meet these needs. At the same

time, there is a need to bring those who are out of reach of these services into the formal financial net.

The Reserve Bank launched two key initiatives- (a) UPI123Pay - an option to make Unified Interface Payments (UPI) payments for feature phone users, and (b) DigiSaathi - to address the doubts of digital payment users across all products. A 24x7 helpline. Currently, effective access to UPI is available on smartphones. UPI can be accessed through NUUP (National Unified USSD Platform) using the \*99# short code. But this option is complicated and not popular. Given that there are over 400 million feature phone mobile customers in the country, UPI123pay will virtually improve the options for using UPI for such users.

Government think tank NITI Aayog has made a case and has come out with a blueprint and roadmap for the licensing and regulatory regime for digital banks that focus on avoiding any regulatory or policy arbitrage and provides a level playing field. Is. Areas for incumbents as well as competitors. In a report titled 'Digital Banks - A Proposal for Licensing and Regulatory Regime for India', the think tank recommended the issuance of restricted digital bank licenses to such financial institutions. It was mooted for a 'full scale' digital bank license. The methodology for the licensing and regulatory template proposed by the report is based on four factors such as entry barriers; competition; trade restrictions; and technical neutrality. Taking forward the agenda of fintech innovations, and on the completion of 75 years of India's independence, the government proposed setting up 200 digital banking units in 75 districts of the country by scheduled commercial banks in the budget of 23-23. The report also mapped the prevailing business models in the region. It highlights the challenges presented by the 'partnership model' of neo-banking that has emerged in India due to regulatory zero and the absence of digital bank licenses. Given the need to effectively leverage technology to meet banking needs in India, this report studies

existing gaps, under-served locations, and global regulatory best practices in licensing digital banks.

In recent years, India has made rapid progress in promoting financial inclusion catalyzed by the Pradhan Mantri Jan Dhan Yojana (PMJDY) and India Stack. However, access to credit remains a policy challenge, especially for the country's 63 million MSMEs (Micro, Small and Medium Enterprises). Financial inclusion has been further fueled by the Unified Payments Interface (UPI), which has been widely adopted. UPI recorded over 4.2 billion transactions worth Rs 7.7 trillion in October 2021. FIs extended micro-credit facilities to street vendors through apps like PM-Kisan, Direct Benefit Transfer (DBT), and PM-SVANIDHI. India is close to operating its own 'open banking structure'.

The creation of a framework for digital banking regulations and policy will provide India with an opportunity to strengthen its position as a global leader in fintech as well as meet several public policy challenges. India is doing 5.5 billion UPI transactions in a month. This is a big achievement for India. Today's MoU with France is a big step toward the world. The digital banking initiatives are envisaged to accelerate the process of digital adoption in India by creating a rich and inclusive ecosystem that can accommodate a large segment of the population. Initiatives to increase access to financial markets in this way will have a huge impact on households' savings. This is because only a small part of the savings of households in the country is invested in capital markets and government securities. Most of the cash transactions happen in real-time, but with the option of UPI through feature phones, many such transactions will take place digitally. Considering the financial behavior of feature phone users, the increase in small-size digital transactions will reduce the use of coins and small notes. This will also give a better picture of the informal economy. However, for this scheme to be fully implemented, technically the entire process has to be kept safe and

simple. It is also to be noted that the new system should be able to settle more and more transactions.

#### **Conclusion:**

Only 43 percent of all urban and rural internet users are active on the internet, and only 46 percent of this subset of the Indian population is actively using digital payment methods. This translates to less digital and banking penetration, meaning only 1 in 5 Indians are actively using digital payments. Most Indian customers are still using cash instead of technology-driven options like UPI transactions. Motivating traditional Indian buyers to adopt digital payments is also an important roadblock to financial inclusion or fintech. India also lags in financial inclusion due to areas with dependence on cash, cybercrime, and poor internet services.

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# **CHAPTER - 9**

# GROWTH OF E-BANKING POST COVID 19 AND IMPROVING THE DIGITAL EXPERIENCE

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#### Abstract

We live in a world of ever-changing technologies. The world is moving to a cashless economy and India is going through transition moving from a cashbased economy to cashless economy. E-Banking is increasing rapidly, business and household are using online payment systems for their daily transactions. India is the fastest developing country in the world and after covid 19 pandemic there is surge in E-banking sector of India. In this study an attempt is made to understand the growth of E- banking post covid. E- Banking enabled elimination of physical banking at a branch has promoted the retail customer to seek alternative, contactless platforms where transactions can be performed 24/7 at their convenience and saving time and cost. Technological innovations in artificial intelligence can provide further impetus to growth of E- banking.

#### Introduction

Electronic banking has many names like e banking, virtual banking, online banking, or internet banking. It is simply the use of electronic and telecommunications network for delivering various banking products and services. Through e-banking, a customer can access his account and conduct many transactions using his computer or mobile phone. E- Banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution. Thanks to technology, and the Internet in particular, people no longer have to leave house to shop, communicate, or even do their banking specially during covid pandemic online

banking users have increased so to avoid contact with one another and as it was the only option available. Online banking significantly reduces the banks' operating cost by reducing reliance on a branch network, and offers greater convenience to customers in time saving in coming to a branch and the convenience of being able to perform banking transactions even when branches are closed.

The first online banking solution appeared in 1997 and by 2010 the majority of banks had implemented it. However, bank customers were slow to embrace the innovation and often preferred visiting bank offices rather than dealing with digital solutions. The beginning of 2020 has flipped things around and with the pandemic outbreak many bank customers started quickly switching to online banking, discovering its potential. Payment solutions, which were new a few years ago, like contactless cards or mobile wallets, are now real, reliable and widely used. With the concept of mobile banking and digital wallets, peer to peer transferring of money has moved to a higher stage of development since it made possible services like ticket booking, peer-to-peer (P2P) money transfer, bill payment, mobile recharges and money withdrawals. The greater number of user payment options, cheaper and quicker systems imply that there is reduced dependence on cash. Nevertheless, it also implies that the expectations of customers are growing.

### Features of E- Banking:

Online banking facilities offered by various financial institutions have many features and capabilities in common, but also have some that are application specific. Most customers are not fully aware of the features offered therefore choose to visit a bank personally. A bank customer can perform

(A) Non-transactional tasks through online banking, including

- I. Viewing account balances, recent transactions and Downloading bank statements
- II. Viewing images of paid cheques, Ordering cheque books.
- III. Downloading applications for M- banking, E- banking etc.
- IV Nominations, user details updating etc
- (B). Transactional banking tasks through online banking, including
- I. Funds transfers between the customers linked accounts.
- II. Paying third parties, including bill payments and third-party fund transfers
- III. Financial Investment purchase or sale.
- IV. Loan applications and repayments of enrolments.
- V. Credit card applications.
- VI. Register utility billers and make bill payments.

### **Objectives of the study**

- To study the growth of E-BANKING amongst users post covid
- To suggest application areas for the future of digital banking

#### Research design

This research paper examines the adoption of E-banking services during this pandemic times.

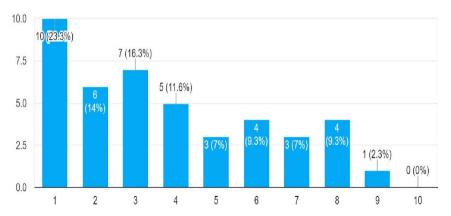
Data was collected through primary as well as secondary sources. A convenient sampling method was used to collect data from 100 respondents from the age group of 20-40 years living in South Bombay. Data Collection Methods was via questionnaire through

google form and Statistical Techniques used are Bar graphs and tables.

#### Analysis of data

Out of the total 100 respondents 58 % were male and 42% female with a median age group of 27 years, which means primarily they can be considered as the younger generation. a total of 10 questions were asked to the sample some open ended and some close ended. Some of the important observations to questions are -

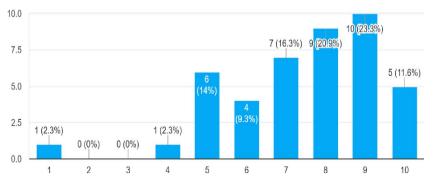
Question -How often did you use E- Banking before Covid 19 ? 1 - Never, 10 - For almost everything



The chart clearly shows that most of the population 65.2% either did not use online payments or only used it restrictively and for a few transactions only. It shows the attitude of spending before covid. The bar graph also implies that most of the population rarely used online payments before in India as most people were still used to and preferred cash transactions over online payments though demonetisation had made many start exploring e-banking.

# Question

How often do you use E- Banking after Covid 19? 1- Never , 10- For almost everything



The above graph shows that the use of online payments increased significantly after

Covid 19. It implies that it was a changing point for Indian banking. This also shows that the Indian economy is moving towards cash-less transactions from a cash-based economy. The attitudes of people are changing significantly and implies that many e-banking services will see growth in the near future.

# Question -Preference for use of E-banking services

E-Banking services	%
Online payment	32%
Balance enquiry	14%
ATM banking	22%
Fund transfer	26%
Other services	6%

The table clearly tells us that the service used mostly is Online Payments. Nearly 32% customers prefer to pay online, especially in Covid 19 everyone realised the ease of online payments and made everyone more comfortable using e- banking services. The second most used service is Fund Transfer accounting to about 26%. This replaces the inconvenience of cheque issue and cheque bouncing due to wrong filling of cheques and cheque deposits and clearing which is time consuming. Online fund transfers are fast and efficient with immediate documentary proof available.

Question -On which device is your bank's net-banking user interface better and easy to use?

DEVICE	NO. OF RESPONDENTS
Laptop/PC	34
Mobile	66

(66%) Consumers prefer to use Mobile over Laptop/PC (33.7%). Hence, there is a significant difference between consumers usage of laptop/PC and Mobile for e-banking, therefore banks need to work on improving their interface for desktops.

#### **Findings**

Digital banking services are accessible with stable internet connection and any electronic gadget like mobiles, laptops, or tabs. After the pandemic, consumers feel that digital banking has made their life so simple that they don't want to visit banks personally. They can avoid personal contact, movement of people, and increase their time being at home. E-banking services have provided many benefits that they can avail it

24/7 and access their financial transactions safely. These services have created trust and loyalty between the banks and customers.

From the study it was found that

- 68 percent of Indian consumers are now using online banking to conduct financial transactions.
- 48 percent of respondents expect to use contactless payments instead of cash or card in post COVID-19 world and welcomed the idea of alternate payment options
- Majority prefer to use mobile banking rather than desktops
- Customers are concerned about security risks in online banking however they feel more confident using online channels than before

COVID-19 changed behaviours of customers, citizens and employees in India and around the world. As people become more focused on their well-being, businesses will also need to understand how they can be part of a new health ecosystem that is likely to dominate customer thinking going forward. The idea that "every business is a health business" is already emerging in many corners of financial services, and that is perhaps one of the few positive lasting impacts to result from COVID-19.

### **Suggestions**

There are key areas to focus on to help navigate the digital banking experience:

a. Customer Service and Advice: As a result of social distancing, an increasing number

of consumers are using online banking channels to manage their money. This is likely to

result in a more permanent shift in customer preferences to digital channels and an

increased demand for digital services. It's important for banks to be accessible to all

consumers, including the elderly or those not familiar with digital banking, providing

education on how to use digital tools, keeping ATMs stocked and operational. As

customers seek help and advice on short-term cash management and re-planning their

future, banks would need to prioritize live interactions through video collaboration tools.

This increase in digital customer engagement must go hand in hand with a ramp-up of

cybersecurity and fraud-protection tools to protect customers.

- b. **Revenue Boost:** Since the economy has revived post pandemic banks can focus on making payments safer by increasing limits on contactless payment channels and educating consumers on digital wallets. Banks can also focus on cashback and loyalty rewards to encourage spending in sectors that need it the most.
- c. Operating Model Adjustments, New digital tools like working as a paperless utility, end-to-end digital advisory and lending capabilities, increased fraud and cybersecurity analysis and detection, etc.will make banks more efficient and resilient to future changes. Banks that haven't focused on remote working and virtual collaboration in the past should explore establishing elastic operations. This will insure banks against such unprecedented lockdowns and perhaps better manage cost overheads.

# Recommendations - The Future of Banking in India

The wave of digital banking has made banks in India to leverage technology by bringing an entire bank to your smartphone. With the current pandemic of Covid-19, those who were reluctant to use digital banking are now forced to do so. Therefore, there are chances that this shift may not be temporary, and we may see more people using this mode of banking in the near future because of its convenience and streamlined process. Business analytics and Artificial Intelligence has the potential to bring a colossal change in the banking landscape and is expected to be the future gamechanger for banking industry with innovations like biometric banking. Many private transfers and banks contemplating robots for customer service and for other things. Going forward, digital banking shall be the most preferred form of banking in India

We expect financial firms to implement video collaboration tools, new chat and messaging software and other fintech innovations to continue live interactions with customers. Several banks have made investments in technology and digital transformation over the past couple of years. A lot of them, however, are still heavily reliant on face-to-face interactions, supported by paper processes. So, we expect to see renewed vigour in the Indian financial services industry with banks making a concerted effort to up their digital game.

These are the most relevant application areas of technology in banking and finance

1. Personalized Financial Services -Automated financial advisors and planners assist users in taking financial decisions. They monitor events, stock and bond price trends against the user's financial goals and personal portfolio and offer recommendations regarding investments.

- 2. Digital wallets are billed in most tech circles as the future of real-world payment technologies. With major players like Google, Apple, PayPal and others jumping on the bandwagon and developing their own mobile first payment technologies and also crypto currency.
- 3. Voice Assisted Banking This technology empowers customers to use banking services with voice commands rather than a touch screen. The natural language technology can process queries to answer questions, find information, and connect users with various banking services.
- 4. Customer support -As speech processing and natural language processing technologies mature, we are drawing closer to the day, when computers could handle most customer service queries. This would mark an end to waiting in line and hence result in happier customers.
- 5. Reducing Fraud and security- AI tools, which learn and monitor behavioural patterns of users to identify anomalies and warning signs of fraud attempts and occurrences, along with collection of evidence necessary for conviction, are also becoming more commonplace in fighting crime.
- 6. Biometic verification and money transfers- It could be one of the options that will revolutionalise the face of banking in the future as banking can be done using just eye scan or fingerprint eliminating cards.

#### Conclusion

An evolutionary succession has been witnessed by E- Banking from cash to cheques, to credit cards and debit cards, and currently to mobile banking and wallets. This change in the behaviour of customers post Covid showing a transition from the traditional to an advanced online mode of payment is apparent in retailing and banking. The statistics shown in this study signify that the number of customers making online transactions are

continuously growing. However, the adoption and deployment of several rising technologies carry new opportunities and challenges to the implementation and design of secure digital banking systems in the present day as well as in near future.

Today E-banking or Net banking and cashless transactions have become very important for the fast development of Indian Economy. Now, it is need of INDIA to develop a user friendly more efficient mode of online banking which will boost the E-banking sector in India. The Indian Government has been promoting digital transactions like never before. The launch of UPI and BHIM by National Payments Corporation of India has been steps of innovation in the domain of Payment system. Today, there is exponential growth observed in E-banking sector but, to have controlled and sustainable growth of this sector our government should take some serious steps for promotion and regulation of online transactions.

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### **CHAPTER - 10**

## IMPACT OF INFORMATION TECHNOLOGY IN BANKING SECTOR

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#### Abstract:

For a healthy economic system, sound and effective banking or financial system is considered to be backbone of the economy; Liberalization, Privatization & globalization have positively changed the picture of Indian Economy in last few Years. Emerging and advanced technology has changed the working pattern of banks world over, Indian banking system is not an exception left behind, but at the same time these set reforms have presented numerous challenges before Indian Banking System to go along with the pace of new technological methods leaving behind with old traditional system. Indian banking in order to survive in highly competitive world and intense competition by foreign and international playersare putting lot of efforts on understanding the drivers to increase efficiency and generate better financial performance, not only by giving hassle free but also meeting external and internal factors of new challenges of technology. However, it is acceptable fact that only up gradation of technology or introduction of new innovative products to banking system will improve the state of services. In the following paper attempt has been made to examine use of Information Technology in last few years and its advantages to banking industry.

**Key Words**: Digital Payments, UPI, ATM, Debit and Credit Cards, NEFT, RTGS

#### Introduction:

Banking sector in India has seen number of changes in last few years. Many banks have begun to take an innovative approach towards banking with an objective to satisfy their customers by offering new technological & innovative products time to time which in turn will add value to customer satisfaction. Information technology plays a very vital role in turning around the picture and growth of Indian banking system. Banks are heavily investing in new technological or innovative methods of banking. ATMs, E-banking, mobile banking, CRM, tele-banking are some of the examples. Electronic banking services, Indian Financial network (INFINET), Real time gross settlement etc. shows that RBI has also adopted new technological payment methods on an ongoing basis.

New innovations in product designing and their delivery in banking and finance industries are result of it. Information technology has not only made changes in the banking system but also offered a wide range of innovations to build up new systems that address wide range of customer needs that are beyond imagination years ago. Upcoming competition among banks and association of financial innovations with it has completely changed banking philosophy at same time this has resulted in innovation and arrival of technological products in banking. The technological evolution of the Indian banking industry has been largely directed by the various committees set up by the RBI and the government of India to review the implementation of technological change.

Demographic growth of India will turn the picture of our country from populated to densely populate very soon in which there exists two different categories named rural and urban India. These two points can only be bringing together through technological advancements. Biggest & primary challenge for Indian banks is to offer wide range of products and services to every type of

customer irrespective rural or urban. Now days, technology has made very easy to deliver services through networks wherein, customers can access their accounts anytime but this has converted into a challenge for banks to retain their customers and add new group of customers by offering new things on time. Even for becoming competitive and generating good revenue, it is important for banks to make their products available at all time and across the organization.

Review of Literature: NadireCavus&DambudzoNetsai Christina Chingoka, with the advancement of IT in the banking sector, customers do not always want to visit banks branches. They are able to utilise the IT services provided to make transactions. More focus needs to be done on enhancing customer's awareness and intention to use mobile banking services. In fact the developers of the mobile banking applications need to find solutions to solve security and trust issues customers, may have with mobile banking. Shilpa Arora & Dr. Privanka **Singh,** Technology has provided us number of innovative tools & products but to put them in a right order will bring change in the picture of Indian economy. Most of the population in India is under poverty line, living in rural areas and have no access to bank accounts, to make them aware about the advantages of technology and its use in banking is a big challenge for bankers. Geetha and Ramanarayanan (2015), explored the impact of core banking solutions on consumers. Their research indicates that the younger population (especially between the age group of 35 - 45 having annual income of more than Rs: 1.20,000 accustomed familiar and with banking.SagarikaAggarwal, KuldeepChowdhury, Tejas Raj In India, 90 percent of credit card and debit card transactions are domestic, but compared to international card schemes, the cost per transaction was low with RuPay. Banks have identified cashless transactions as the future of banking, customers reacting positively to this transition, with a higher growth rate when it comes to transactions at POS terminals with both debit cards as

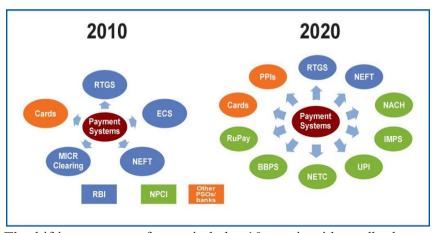
well as credit cards.Dr.T.Sasikumar,PJAEE, 17(6) (2020)A variety of developments have taken place in Indian Banking sector. among the various developments, evidence suggests that there is a shift from traditional channel to electronic channels in the developing countries. In order to have faster processes in digital banking, there is need by banks to invest more on robust reliable systems to reduce incidents of failed transactions transactional hazels in ATMs. Mobile banking and POS terminals.J. SaiSudha, Dr. P. VenkataDurgaRao, March 30. 2020 the study has been emphasized on the technology impact on the banking performance of select private sector banks, study found that the Mobile transactions and RTGS have significantly influenced the banking technology Index but ATM and NEFT transactions have impacted negatively to the private sector banking technology index. The study also observed that with the BTI impact on the Business per employee has been found significantly. The study result reveals that the usage of technology to render the banking services influenced the significantly positive.

#### RESEARCH METHODOLOGY

This study has used descriptive method. Data collected was from secondary sources through Articles, Journals, Books, websites, survey reports, committee reports and government published data. Research methodology used was descriptive one. Data was analyzed by using percentages, CAGR and depicted through tables and bar chart.

The digital revolution is taking the world by stormand noother area has witnessed a metamorphosis as has been seen in the payment and settlementarena, resulting in amyriad of payment options for the consumer. In the last 10 years, India has witnessed an exponential growth in payment systems and a significant shift in payment preference.

Table1:India'spaymentsystems



The shift in payment preference in the last 10 years is evidenced by the fact that the volume of paper clearing, which comprised of 60% of totalretail payments in the financial year (FY) 2010-11, shrunk to 3% in the FY2019-20. This striking shift in payment preference has been due to thecreation of robust electronic payment systems such as RTGS, NEFT and ECS that has facilitated seamless real time or near real time fund transfers. In addition, this decade has witnessed introduction innovative paymentsystemsthatprovideinstantcredittothebeneficiary, with thela unchoffastpaymentsystemssuchasIMPSandUPIthatareavailabletoc onsumers round the clock for undertaking fund transfers, and introduction of mobile based payment systems such as Bharat Bill Payment System(BBPS), PPIs to facilitate payment of bills and purchase goods andservices and National Electronic Toll Collection (NETC) to facilitat eelectronictoll payments. The convenience of these payment systems ensured rapidacceptance as they provided consumers an alternative to the use of cashand paper for making payment.

"India has been always a country which fostered innovation and development in the area of payment and settlements systems. The past decade has witnessed the blossoming of my payments systems, all for the convenience of the common man".(ShriB.P.Kanungo.DeputyGovernor.RBI.2018

DigitalPayment Service Description(RBI Bulletin 2019)

- 1. **Electronic Funds Transfer** is a digital movement of money from one bank to another. These transfers take place independently from bank employees, as a digital transaction there is no need for paper documents. EFT has become a predominant method of money transfer since it is simple, accessible, and direct method of payment or transfer of funds. This system has been replaced by more efficient NEFT system for use by the general public.
- 2. Real Time Gross Settlement (RTGS) The acronym 'RTGS' stands for Real Time Gross Settlement, which can be explained as a system where there is continuous and real-time settlement of fund-transfers, individually on a transaction by transaction basis (without netting). 'Real Time' means the processing of instructions at the time they are received; 'Gross Settlement' means that the settlement of funds transfer instructions occurs individually. Settlement of fund transfer orders occurs individually on a continuous and real-time basis. Minimum amount for customer transactions is '2 lakh. No upper limit. Available from 8 am to 6 pm for customer transactions and 8:00 am to 7:45 pm for interbank transactions on working days.
- 3. National Electronic Fund Transfer (NEFT) National Electronic Funds Transfer (NEFT) is a nation-wide centralised payment system owned and operated by the Reserve Bank of India (RBI). One to one fund transfer with half-hourly net settlement. No minimum or maximum limit. Available from 8 am to 7 pm on working days.
- 4. National Electronic Clearing Service (NECS)(Credit) ECS is an electronic mode of payment / receipt for transactions that are repetitive and periodic in nature. ECS is used by institutions for

making bulk payment of amounts towards distribution of dividend, interest, salary, pension, etc., or for bulk collection of amounts towards telephone / electricity / water dues, cess / tax collections, loan instalment repayments, periodic investments in mutual funds, insurance premium etc. Essentially, ECS facilitates bulk transfer of monies from one bank account to many bank accounts or vice versa. ECS includes transactions processed under National Automated Clearing House (NACH) operated by National Payments Corporation of India (NPCI). This facilitates multiple credits to beneficiary accounts with destination branches across the country against a single debit of the account of the sponsor bank.

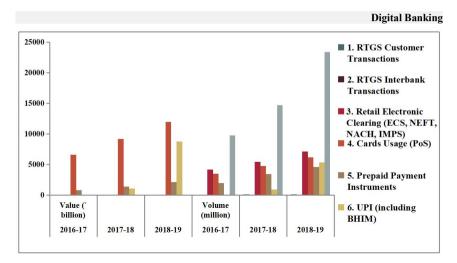
- 5.Credit & Debit Cards PoS terminals which enable customers to make payments for purchases of goods and services by means of credit/debit cards. To facilitate customer convenience, the Reserve Bank has also permitted cash withdrawal using debit cards issued by the banks at PoS terminals and ATMs.
- 6.Banks PPIs (Cards & Wallets) RBI as per the guidelines provided under the Payment and Settlement Act, 2005 defined Prepaid Payment Instruments (PPIs) as instruments of payment that facilitate buying of goods and services, including the transfer of funds, financial service and remittances, against the value stored within or on the instrument. The value stored on such instruments represents the value paid for by the holders by cash, by debit to a bank account, or by credit card. The pre-paid payment instruments can be issued in the form of smart cards, magnetic stripe cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers, etc.
- 7.**IMPS** Round the clock peer-to-peer fund transfer facility with immediate money transfer through multiple channels like Mobile, Internet, ATM, SMS, Branch and USSD.
- 8. **NACH** Web-based solution to facilitate interbank, high volume, electronic transactions which are repetitive and periodic in nature.

- 9. Cheque Truncation System (CTS) is the process of stopping the physical movement of cheques. As per the amended Negotiable Instruments Act 1881, in cheque truncation, the movement of the physical instrument is stopped and replaced by electronic images and associated MICR line of the cheque.
- 10. **Aadhaar -enabled Payment System** Basic banking transactions can be done at Micro ATM of the Business Correspondent of any bank using Aadhaar authentication.
- 11. **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, through mobile device round the clock 24\*7 and 365 days. BHIM app supports multiple bank accounts into a single mobile application. Upper limit is `2,00,000.
- 12. National Electronic Toll Collection (NETC) National Payments Corporation of India (NPCI) has developed the National Electronic Toll Collection (NETC) program to meet the electronic tolling requirements of the Indian market. It offers an interoperable nationwide toll payment solution including clearing house services for settlement and dispute management. Interoperability, as it applies to National Electronic Toll Collection (NETC) system, encompasses a common set of processes, business rules and technical specifications which enable a customer to use their FASTag as payment mode on any of the toll plazas irrespective of who has acquired the toll plaza.

# **Digital Transactions**

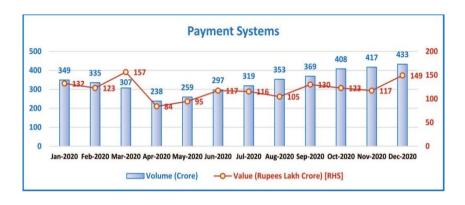
	2016-17	2017-18	2018-19	2016- 17	2017- 18	2018- 19
		Volume (million)				
1. RTGS Customer Transactions	8,49,951	10,36,699	11,84,368	104	121	133
2. RTGS Interbank Transactions	1,31,953	1,30,426	1,72,514	4	4	3
3. Retail Electronic Clearing (ECS, NEFT, NACH, IMPS)	1,32,250	1,92,018	2,58,745	4,205	5,467	7,113
4. Cards Usage (PoS)	6,583	9,190	11,969	3,486	4,749	6,177
5. Prepaid Payment Instruments	838	1,416	2,129	1,963	3,459	4,604
6. UPI (including BHIM)	69	1,098	8,770	18	915	5,343
Total Digital Transactions	11,21,644	13,70,847	16,38,495	9,780	14,715	23,373

Source: RBI



The total value of digital payments included large-scale interbank payments, such as Real Time Gross Settlement (RTGS) or National Electronic Funds Transfer (NEFT), as well as payments used by individuals, such as credit and debit cards. India's mobile payment system, Unified Payments Interface (UPI), recorded strong gains, both in numbers and in value, since 2015. Thereby, it comes as no surprise that international key players, such as Google Pay or Amazon Pay, entered the market.

Table 20: Performance during the Pandemic



									Digital Banking			
Total Payments	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	
Volume	100	92	71	77	88	95	105	110	122	124	129	
Value	100	127	68	77	96	94	85	106	100	96	122	

Source: RBIData

Note:((i) Feb2020 figures are considered as the base (100).

(ii) Months in green have Payment volume/value higher than the Pre-Covid-19levels indicating recovery in Payment Systems.

Since the beginning of the COVID-19 pandemic in India the number of digital payment transactions continued to grow. This was also true for the various methods of credit and debit transfers, including mobile payments through UPI. According to the results of a survey among Indians on the impact of the corona virus (COVID-19) and its consequent lockdown, a majority of respondents reported using digital payments to purchase groceries, medicines and other essentials. This had a higher share at retail stores than online.

While the pandemic accelerated the adoption of technology across industries and sectors, our dependence on these advancements has been increased to a great extent. For example, the recent Annual Report 2020-21 of Reserve Bank of India shows, the total digital transaction volume in 2020-21 stood at 4,371 crores, as against 3,412 crores in 2019-20, attesting to the resilience of the digital payment system in the face of the pandemic.

Conclusion: The Banking industry in India is rapidly progressing with increased customer base and due to newly improved and innovative facilities offered by technology. The year has seen increased dependence on digital technologies for banking needs. There still lies a massive potential for banks to fill the gaps to meet their customer expectations. More businesses are digitising their processes and modernising functions by investing

in the latest technologies. Modern banking technologies are helping banks collaborate and integrate their services with fintech to offer consumers newer and efficient technologies. Consumers are also actively adopting these new technologies for better and convenient banking experiences. As a result, more and more are transacting with their banks, building consumers opportunity for newer technologies to be created in the space. providing the customers with an ultimate banking experience. At the same time balance between rural and urban customers and their capabilities of digital banking needs to be addressed by banks since, most of the population in India is living in rural areas; therefore the banking system in rural areas should be more equipped and responsive towards the problems and issues of the To make them aware with the advantages of customers. technology and its use in banking is a big challenge. No doubt it will take another few years to overcome such problems.

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#### **CHAPTER - 11**

# WIRELESS VENDORS AND RESOURCES: NFT

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#### Abstract

Over the years we have seen some tremendous technological advancement in the field of finance and payments. The intervention of technology has totally changed the way we make payments today. With internet banking, mobile banking, and mobile wallet payments, we no longer are dependent on cash. Digital wallets are reliable, convenient and they are also safe and secure. The digital wallets use secure technologies like encryption and tokenization to protect sensitive payment data. Mobile wallets build on the successes of EMV "chip card" technology.

Mobile wallets use secure technologies like NFC so customers can tap their phones rather than swiping or dipping a card. Additionally, some mobile wallets utilize QR codes, email address or phone numbers for contactless payments and allow the secure exchange of tokenized payment credentials – easy even for merchants who maintain a low-tech profile. Each of these wireless technologies creates secure connections between mobile devices and point of sale systems.

Mobile wallets use secure technologies like NFC so customers can tap their phones rather than swiping or dipping a card. Additionally, some mobile wallets utilize QR codes, email address or phone numbers for contactless payments and allow the secure exchange of tokenized payment credentials – easy even for merchants who maintain a low-tech profile.

With time, we are witnessing new technologies being used to make the payment experience better than ever. And one of these technologies is NFC. NFC, or Near Field Communication, is a communications protocol for electronic

devices. It is most commonly used to support mobile payments systems like Apple Pay, Google Pay, and Samsung Pay. It is also used to share media between nearby devices, create access tokens and keycards, and bootstrap wireless connections.

In this paper, we take a look at the pros and cons of NFC as a contactless or mobile payment portal.

**Key Words:** digital wallet, NFT, Mobile Wallets, Google pay, OR codes

#### • Introduction:

A digital wallet allows consumers to keep their credit card and debit card (and much more) information in a secure cloud environment. Consumers can use them to make purchases online with their computer, tablet or even make instore purchases via a mobile wallet application on their smartphone as a contactless payment – all without having to pull out their physical cards. NFC also allows its users to store multiple debit and credit cards on their mobile devices. With this, the users no longer need to carry cards in their wallets.

While the use of digital wallets has been on the rise for more than a decade, the pandemic has skyrocketed the use of this contactless payment above cash and credit card payments. Digital and mobile wallets make online and instore payments quick and easy.

Digital wallets are reliable, convenient and they are also safe and secure. The digital wallets use secure technologies like encryption and tokenization to protect sensitive payment data. Mobile wallets build on the successes of EMV "chip card" technology.

Mobile wallets benefit from additional layers of security compared to plastic, starting with a smartphone's built-in biometric security. Though the terminology and individual features may differ, mobile wallet, digital wallet and eWallet all refer to apps that, among other uses, can act as a payment method.

The term mobile wallet is sometimes applied to the use of Smartphone apps for payment in-store while digital wallet is used more commonly for the use of the same apps to purchase goods and services online. A mobile wallet or e wallet app or e wallet is an app that consists of your debit and credit card information which helps the users to pay for goods and services digitally using their mobile devices. Popular online payment apps or payment apps or e wallet list in India include: Paytm Google Pay Amazon Pay JIO Money Freecharge Yono SBI Airtel Money Payzapp MobiKwik Oxigen Ola money PhonePe MSwipe Axis Bank Lime PayUmoney ICICI Pockets Citrus and so on.(1)

However, this distinction has become even more blurred as applications evolve. These days, the terms digital wallet and mobile wallet are most often used interchangeably. The most well-known digital wallets are intended for general use and are broadly accepted by businesses large and small as contactless payments. These include digital wallets like Apple Pay, Samsung Pay and Google Pay. Other mobile wallets are closed loop and intended for use at one company like many of the popular mobile apps offered by a growing list of popular restaurant franchises.

Digital wallets are mobile apps that work like an updated version of a traditional payment card. Instead of swiping or dipping their cards into a terminal, mobile wallets use near-field communication (NFC) chips to allow consumers pay by simply tapping their mobile phone or smartwatch at a properly equipped contactless point of sale terminal.

NFC payments which are also known as contactless payments have gained immense popularity throughout the world. In 2015, the global NFC market size was valued at \$ 4.80 billion and it's about to increase 10 times by the year 2024 with an estimated valuation of \$50 billion. NFC stands for Near Field Communication. It's a technology that enables users to securely transmit and receive information through their phones over a

short-range (usually 4 cm). NFC is an upgrade of the existing RFID technology which combines both the reader and the smartcard interface into a single device. When both reader and payment devices are close together and activated, then there is an exchange of encrypted data from the NFC chips which complete the payment.

This process makes the checkout flow lightning-fast, thus making NFC payments as one of the most secure and convenient payment methods. This is the reason why NFC-powered payments such as Android Pay and Apple Pay are becoming a preferred payment option for consumers.

While additional security is built in to the app, digital wallets or mobile wallets also integrate a traditional PIN, fingerprint or facial recognition security layers. Then the transaction is designed to proceed as if a traditional payment card was used.

Mobile wallet smartphone apps are backed by traditional credit and debit cards as well as bank accounts. Beyond the differences in how a consumer's payment information is captured at the point of sale, credit card and debit card transactions are processed as if a traditional, physical payment card was used.

#### • Objective of the Study:

- To analyze and forecast the market size of India contactless payment market.
- To forecast India contactless payment market based on NFT.
- To identify drivers and challenges for India contactless payment market.

#### • Concept and Process:

Money can be deposited in the payment app before conducting any transaction or in other cases, an individual's bank account can be linked with the digital wallet to conduct the financial transaction. Payment apps will have both the software and information component in it. Secure and fair electronic payment systems form an important issue. The software helps in providing security and encryption for personal information and for conducting the actual transaction. Types of Mobile Payments There are five different types of models for mobile payments and they are Card-based payments Mobile Wallets Contactless Payments NFC (Near Field Communication) Carrier Billing (Premium SMS or direct carrier billing) Direct transfers between the payer and payee bank accounts on real-time based operations Payment App NFC For the last few years, Near Field Communication (NFC) payment applications have been gaining more attention with considerable popularity.

Many digital eWallet payment apps use NFC for added security as digital wallets only communicate with NFC readers when the user unlocks the app on the device and selects the payment card to be used for payment.

Contactless cards are great facilitators for your everyday purchases and are fast being adopted by both consumers and businesses. You can swipe your card or digital device at the point of sale to complete your payment.

NFC finds various applications such as data communication between smartphones, verification of authorized persons at offices and other government places, ticket booking etc.

NFC is also similar to Bluetooth technology but differs in that NFC doesn't require device discovery or manual syncing like Bluetooth. It also uses less power than Bluetooth. NFC can be used three different ways:

Peer-to-peer: Two NFC-enabled devices can establish a connection and share data.

Read/write: An active device, such as a phone, picks up data from a passive device which does not have the capability of reading information itself.

Card emulation: An NFC device can be used like a contactless credit card.

The third use is the one that is most applicable to businesses because it allows for the acceptance of mobile wallet payment or contactless payments, which is our focus here. (6)

The contactless connection between the two devices is established with the help of radio waves which are similar to RFID labels that are used in warehouse, store, and other wireless tracking applications. NFC chips use a specific RFID frequency of 13.56MHz that works only when both the chips are placed very close to each other.

The term NFC is the short form of Near Field Communication. As the name suggests it is used for short distance data communication between two devices known as initiator (i.e. NFC reader) and target (i.e. NFC Tag).

It operates at 13.56 MHz frequency with different low data rates viz. 106, 212 or 424 kbps. The NFC tag can be active or passive and NFC reader is always in active mode.

Another security feature of NFC is that the NFC readers connect with only one NFC payment device at a time. This eliminates all the possibilities of a nearby customer accidentally paying for someone else's purchase.

This revolutionary payment system has gained enormous fame across the country. Innovation in NFC payment encryption transforms your mobile into a safe and easy way to pay. NFC is a short-range wireless networking technology that enables data sharing between two remote devices up to 10 cm or so. This is supported by large payment card networks, such as Visa,

MasterCard, and American Express. To pay at any store's cash table, placing the phone next to the scanner would be enough to capture the transaction.

It is an addition of the standard RFID (Radio Frequency Identification), which integrates a smart card and a reader in one unit. However, it is crucial to ensure that the mobile has built-in NFC technology and it is enabled for the payments, just like Bluetooth is enabled in a phone to share data. Working of NFC Payments to make the payment complete an NFC reader and payment devices are need to be close together, then the NFC chips interchange encrypted data. This mechanism lets the checkout function very fast and secure and makes NFC payments one of the most reliable and easy forms of payment. This is why NFC-powered payments like Android Pay and Apple Pay are becoming a popular customer payment choice. Using radio waves that are close to RFID labels used in factory, shop, and other wireless tracking applications, the contactless connection between the two devices is generated.

#### Benefits of NFT

Worldpay of FIS 2021 Globle payment report reported that mobile wallet share at the point of sale jumped 21% in 2021. Digital wallets comprised 48.6% of e-commerce transactions in 2021 and are projected to rise over 52.5% by 2025.

Digital wallets are a popular online payment method as they're both safe and convenient. Digital wallets also help reduce shopping cart abandonment and increase conversions because they offer seamless checkout solutions. The e-commerce platform provider Big Commerce estimates that sites that encourage digital wallets for payment saw upwards of a triple rise in mobile cart conversion.

Several digital eWallet payment applications use NFC for enhanced protection since digital wallets communicate with NFC

readers only when the person opens the app on the smartphone and picks the payment card to complete the payment. Another security benefit of NFC is that only one NFC payment device is connected to the NFC readers at a time. This reduces all the chances of accidentally paying a nearby customer for other's purchases. NFC also enables its users to store their credit/debit cards on their smartphones. This allows the users to not to carry physical cards on their wallets for purchasing at online or offline stores.(2)

So, it is time to abandon traditional payment device, for example Chip & PIN, and go for contactless options? If so, what should we keep in mind when transacting using such options? (5)

Accepting digital wallet payments offers three clear benefits for small businesses:

Accepting digital wallets, either in-store or online is convenient. With the rising trend of contactless payments and the increasing reliance on our mobile devices, why would we carry around a plastic credit card if that information was securely stored on your phone or smartwatch for easy use?

Accepting digital wallets is secure. Security and data privacy is understandably more important than ever to consumers. Payment fraud remains a serious concern for everyone in the payment ecosystem: consumers, businesses, financial institutions and the payment partners that serve them. With biometric security, tokenization and encryption to ensure security, digital wallets are a secure payment method.

Accepting digital payments is easy. Mobile wallet acceptance is built into the majority of point of sale systems with NFC technology, from newer credit card terminals to integrated point of sale systems. You can even accept payment from a mobile wallet with a mobile device of your own. Accepting digital wallets is easy to set up and requires minimal training for your staff.

Like EMV chip cards, mobile wallets are more secure than magnetic strip cards While a phone is still physically vulnerable to theft, with its pass code or biometric protection activated the device will be virtually useless to thieves.

With mobile wallets, a consumer's payment data is exposed only once — when the card information is entered into the mobile wallet. This information is then encrypted so that every time the consumer taps their mobile wallet for payment at an NFC-enabled terminal, "virtual" payment data (meaning not real card information) is sent from their phone to the payment device. The full card number is never exposed. When this virtual data is passed to the payment terminal, it's often immediately encrypted by the merchant's payment processor using Payment Card Industry (PCI)-validated methods.

#### **Drawbacks of NFC payments**

Despite its many advantages, the contactless payment system has its fair share of concerns. Modern technology has managed to address these issues effectively, but let's go ahead and evaluates some of these concerns about the contactless payment system.

- NFC technology has a plethora of benefits; however, these benefits come with a cost. And this cost is too high for some companies to afford. Companies like Starbucks have successfully integrated the NFC technology in their system; however, for smaller companies, the NFC integration can cause difficulty in maintaining their turnover and increasing their profits. It's because the cost of installing software & hardware along with hiring technicians is very high.
- NFC payment technology is surely more secure when we compare it with the credit card technology; however, it's not completely free from risks. We have often seen that rapid innovation and evolution in technology has come up with both positive and negative consequences.

- It offers very low data transfer rates which is about 106 or 212 or 424 Kbps.It is very expensive for the companies to adopt the NFC enabled devices.
- It is not so advantageous for users due to complex procedures compare to other easy options.
- Though it is more secure compare to credit/debit card based system, it is not completely risk free. This is due to the fact that mobile based hacking is common now-a-days due to availability of most advanced tools and techniques which provides complete access of smart devices.
- The power consumption is comparatively more in NFC enabled devices.(3)
- The traditional POS systems in shops can't accept payment via NFC-enabled cards or apps. Such shop owners need to upgrade their POS systems to accept NFC payments via contactless cards or apps. Unless the retailers or shop owners upgrade their POS systems, NFC-enabled payments can't be facilitated, and customers will have to use the swipe or dip methods.
- Not all mobile devices are NFC-enabled. Also, NFC-enabled devices are priced higher compared to their counterparts- the non-NFC smart phones.

#### Conclusion

The contactless payments industry has been seeing a tremendous boom in recent years. There is a growing demand for contactless Cards, and according to a report by ABI Research, the number of contactless cards shipped in the US is set to reach 196.8 million in 2021. The overall global contactless payment market is expected to register a Compound Annual Growth Rate (CAGR) of around 20.01% during the period between 2020 and 2027.

Government is making efforts in elevating these cutting-edge and novel technologies. A systematic penetration of these among the masses will considerably lead to a boundless and prolific cashless economy. It is essential to build an ecosystem that fosters

innovative fintech startups and players that come forward with unique offerings in the digital payments space. This will, in turn, encourage more Indians to adopt a cashless and contactless economy. As digital transformation picks up pace, all sectors seek to promote cashless services, that will inevitably boost the market for digital payment in India.

With the world moving towards digitalization, NFC technology and Contactless payments are reshaping the fintech landscape by driving the digital cashless economy.(6)

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#### **CHAPTER - 12**

# DIGITAL BANKING: Comparison of digital banking with special reference to pandemic.

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#### Abstract:

Banking sector play a very significant/important role in the financial system of an economy. It serves as a credit delivery mechanism, which can be accessed by those who are in need of funds. The banking sector of the economic activities represents the centre of a nation Thus, a strong and healthy banking system is essential for economic growth. The Indian banking sector, at present is witnessing an IT revolution and is heading towards digitalization. The internet and IT has entirely changed the way of functioning of banks and the financial institutions. The Information technology was introduced in the Indian banking sector in the late eighties. However, current phase of IT revolution is more intense and impactful, which probably has the potential to change not only the banking landscape, but the overall structure and direction of the economy. The modernization of banking sector, after the introduction of IT and internet has benefitted both the customers as well as banks. The banking now is not just limited to transactions in the branches, but it has made its way into hand held devices like smart phones and tablets. The current phase of banking is also called as Digital Banking.

Adoption of digitalization in the banking sector was initially not the stated objective of demonetisation, but it was one of the results of demonetisation.

**Keywords:** Credit delivery mechanism, Digitalization, Modernization, Demonetisation

#### Introduction:

Digital Banking was introduced as a revolutionary service in the banking sector. It made banking transactions much more easy and very much convenient for the customers. For the banks, technology has emerged as a strategic resource for achieving higher efficiency, control of operations, productivity and profitability. Digital Banking is the conversion of manual systems followed within a branch of a bank to a complete electronic banking system. It is part of the large sense of expanding into electronic systems by providing services through the internet. The integrated communication technology was introduced by the Rangarajan Committee Recommendation in the year 1980 which was the reason for the banks to adopt

this. In 1989, Fred Davis and Richard Bagozzi introduced TAM. Technology Acceptance Theory is a system which describes the usage of developed technology by users. Its goal 55 is to clarify in general the determinants of technology acceptance Banking has to grow as the internet and also interest of things that is bound to grow and give the banks customers an experience of new digital economy.

Digital banking abolishes traditional banking practices like cash deposit-withdrawal at teller, passbook printing, fund transfer, investing in deposits, demat accounts and other services. DB has made life a lot simpler for the customers. Consumer acceptance is a key driving factor and a need for further research. The banking industry is introducing innovations that are useful in delivering better customer service. Quality of service will increase by using the new technical developments in the banking sector. All the transactions will be done online rather then visiting the banks. Money is considered as the lifeline of a country's economy. It enables buyers to do their exchanges of merchandise and ventures and essential to produce products and services. Banks play a very crucial role as a financial source which helps the consumers to

meet their financial needs. Banks offer debit and credit facilities to customers at the lowest possible cost. This makes the economy function efficiently. Banks are always innovating by providing better services for becoming profit-making. During this early adoption period of IT in the financial sector, customers used the banking system either directly by branches of retail banking or indirectly by members of agencies. Computerisation was initiated in banks to meet the rise in volume of industry. Computer manufacturers reacted to the demand for hardware requirements quickly during this time span. The design of the internal structure and strategic growth of banks was predominated by providing financial resources cost-effectively, rather than generation of consumer interest. Automated DB services offer a great chance to optimize profits. Different surveys explore that DB platforms are cost-effective distribution networks for banks.

Digital banking provides multiple opportunities for banks. Some of them are: Lower bank operating costs Higher profit margins Scope to expand services. DB has other benefits such as organizational efficiency, faster expansion, reduction of costs, gaining huge volume of customer and online marketing. From the customer point of view the key advantages are saving of time by automating Digital banking processes and implementing simple and easy techniques. The challenges faced by digital banking services can be classified into various categories like trade, psychological, safety issues, functional and different categories of risks associated with the electronic distribution microeconomic challenges. The success of DB depends on secure transactions. Speedy growth of a NIS is causing warning to DB safety.

The most critical hurdles in the development of DB are the safety challenges. Data loss due to technical errors, lacking safety measures and low confidence are few problems faced by customers. Digital banking has made life a lot simpler for the customers. It raised issues related to different types of risks which

could also influence the liquidity, productivity, credibility of banks. They are operational, credit, strategic, interest rate, reputational, liquidity, foreign exchange, money laundering, legal, transactional, and compliance risks.

Banks are introducing latest innovation, providing information of their DB services, and secured usage.

#### **Objectives:**

To gain insights about functioning of net banking.

To explore the future prospects of digital uses in baking sector.

To examine users understanding about banking services quality and performance.

To analyse the affecting factors while implementing digital banking services.

To educate the customers with new product and services.

To facilitate the transition of traditional banking to modern technology-based banking.

#### **Hypothesis:**

Many customers have awareness towards Digital banking services. There is a positive impact of adopting technology in the banking sector.

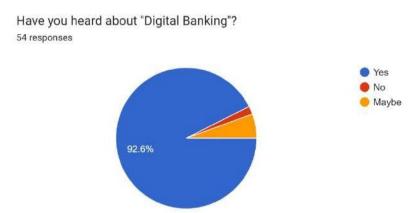
#### Research methodology:

Research methodology means the practical ways or techniques used to find out the people's

opinion. It is also useful to know the societies point of view in the research problem.

The research methodology used in this research paper is primary data collection. In this method we conduct the survey through questionnaire and collect the data directly from the respondents.

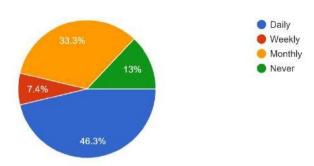
**Data Collection:** Data collection is a process in which we find the samplings of the survey. It can be through online or offline mode. Following is the data analysis of the survey conducted.



From the above pie chart, we come to know that 92.6% of population have heard about digital banking whereas there are few illiterate people don't have any idea about it.

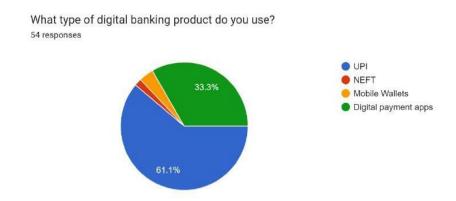
Resource: Online survey through google forms.

How frequently do you use Digital Banking Products/Services? 54 responses

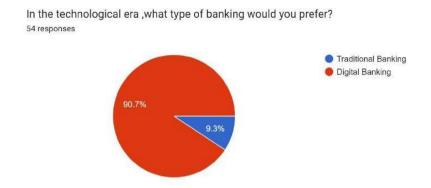


It is clearly proved that 46.3% people use digital banking services daily in their day-to-day life,33.3% people use monthly, 7.4% people use weekly and 13% people do not use.

Resource: Online survey through google forms.

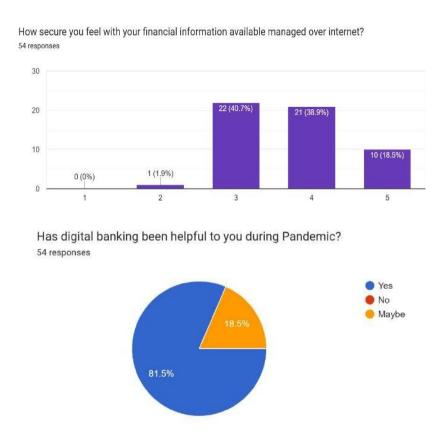


We can see 61.1% people using UPI and 33.3% people using Digital payments apps. Resource: Online survey through google forms.

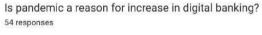


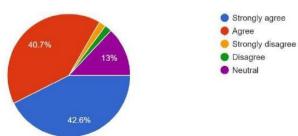
We can clearly see the transformation of people from traditional to digital banking as shown in the above diagram with 90.7% people preferring digital banking.

Resource: Online survey through google forms.



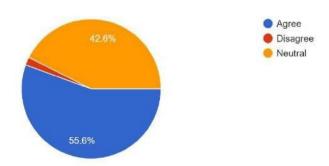
During pandemic 81.5% people agree that digital banking has been very helpful. Resource: Online survey through google forms.





Most of them agree that pandemic is the reason for increase in digital banking. Resource: Online survey through google forms.

# Is digital banking better than traditional banking? 54 responses



From the above pie chart, we come to know 55.6% digital banking is better than traditional banking.

Resource: Online survey through google forms.

#### Conclusion:

In this report, I have come to a conclusion that digital banking is an important innovation of the 20<sup>th</sup> century. Banks are the important pillars of the economy and the strategi they adopt will influence the recovery of the economy in the pandemic. It gives access and allows us to carry out the banking services 24/7. The banking sector will get certain advantages through the implementation of digital banking as effective as organization, cost reduction, easier to grow, gain higher consumer interest.

#### **Modern Banking Services**

Credit Card. Kisan Credit Card.
SMS Banking. Visa Debit Card.
Internet Banking. Mobile Banking.
SMS Alert. ASBA.
ATM Service. SWIFT Transfer.
Connect IPS. ABBS Service.
Clearing Service. FOREX Transaction.
RTGS Service. ADBL Demat Account.

From the survey done by me, it is confirmed that people know about Digital banking. There are few illiterate people who have no idea about this, therefore they prefer transaction of traditional way. The increasing use of digital transactions during pandemic is expected to continue in the coming years. There is a study growth in the value of digital payments such as NEFT, UPI, BHIM etc. During the pandemic the sustention of operations by leading users of digital payments such as e-commerce and big-techs could have contributed a small value of digital payments. People were not able to travel physically to any place in Pandemic.

Therefore, they have to use digital banking services. For each and every transaction many

people used digital platforms during pandemic. The increasing trend of growth which is seen in the total digital payments in volume to banking sector is also has been increased the growth of all digital banking transactions.

Maintaining effective customer service helps to build and maintain customer relationship which is the key to success in current banking scenario. Better service quality typically can help to get higher market share and better returns. In the new digital world banks need to work harder to increase the level of consumer confidence, digital security, and the value of services given by digital banking, and 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. The banking products and services are the combination of online and offline, 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 good experience to the consumers. Pandemic has led to a diminution in digital transactions in India.

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Sivaprakasam M [2020], Customers preference to digital banking services.

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Books: The books referred while writing the research paper. Technology in banking, author Dr. R. Sangeetha

Modern banking in India, author D. P. Gupta and R. K. Gupta.

#### Appendix:

- 1. Have you heard about Digital?
- 2. How frequently do you use digital banking products?
- 3. What type of digital banking product do you use?
- 4. When you started using digital banking?
- 5. Has digital banking been helpful to you in pandemic?
- 6. Is pandemic a reason for increase in digital banking?
- 7. Do you face challenges using digital banking services?
- 8. Is digital banking better than traditional banking?
- 9. How secure do you feel using Digital banking products or services?

# **CHAPTER - 13**

# DIGITAL BANKING IN SPECALIZATION OF MOBILE & INTERNET BANKING In Mumbai city.

## 1. Sarvesh Parab

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### 2. Dr. Mukta Anil Pote

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### Abstract -

As we all know that 'Digital' word itself states digitalization in the economy, since this field has grown very fast and it became a very important and integral part of our economy. The UPI is developed by NPCI and no need of any bank account or IFSC code, It will very easily redirect from your registered mobile number. UPI id & QR can be directly made at the time of registration in mobile banking. As we all know that some of mobile banking products such as SBI pay, HDFC pay, what's app have some limitation toward transaction upto 20 transactions per day. This research is purely based on primary as well as secondary data and some of the respondents might have provided biased responses as they were unwilling to provide correct information.

**Key words:** Depositors, UPI payment, Digital banking, Respondents, Mobile banking

### Introduction: -

As the word "DIGITAL" provide the meaning of digitalization, Innovations and new trends are coming across in current 21<sup>st</sup> century, In the past era of Pre-independence & Post-independence as well the financial sector / banking sector has weak. Later on,

with lots of reforms and trends under banking sectors was slightly changed in order to attract the higher depositors (One community) towards banks, and that have changed a lot during current situation.

Digital Banking itself a very vast, immerging and growing field which provide facilities and convenience to depositors. Digital Banking system also played a vital / major role in widening the entrepreneurial base / index of the country. However, by 'eighties' (at that period of time) it was pretty clear that the operational efficiency was unsatisfactory as no digitalization and wide expansion was there. Banks were characterized by low profitability with high and growing non-performing assets (NPA's). After that our honorable prime minister Shir Narendra Modi took the initiative of digitalisation With Ravi Shankar Prasad S. S. Ahluwalia on 1 July 2015.

Hence, DIGITAL BANKING provides a lot of facilities / conveniences in terms of (G-Pay, PhonePay, Paytm, BHIM, QR Code – Mobile banking), keeping the security of depositors on priorities' Internet Banking facility has also come in picture which ask ample security question & the User ID & Password set by the customer in order to prevent from the scams & malpractices (Internet Banking), Such broad measures has been taken under digitalization in banking sector.

According to Sunil Aggrawal in his book, Since the last two decades, banking in our India has undergone a paradigm shift. This book states as 'Anywhere Anytime Banking'. Information Technology (IT) has played the key role. Many career opportunities and the door of new industry was open under digitalization. Digitalization in this new century has a many new opportunities.

According to Luigi Wewege, FinTech companies are constantly transforming into traditional retail banking industry than the descriptive financial innovation.

Functioning under digitalization make everything simpler and easier with the help of current technology / IT sector.

Digital Banking always provides high practicing to bankers for a sound foundation in the principal / basic products / facilities such as Cards, ATMs, Mobile & Internet Banking, POS, etc.

# • How to use UPI Apps?!?

# (Let me give you some of basic information about UPI)

UPI means "Unified Payment Interface) is a convenience facility provided by bank to all his depositors, It has no as such rules – regulations / Norms – conditions everyone is liable or equally independent to use such services.

UPI application is very easy, quick and genuine, there is no as such much information is needed / no hectic procedure to follow. Your mobile number registered with your bank states everything and fetch everything in front of you in a minute.

UPI Id / VPA / Gpay / PhonePay / Paytm / QR code / many banks are having their own payment system such as SBI Pay, HDFC Pay, KOTAK Pay are the examples of mobile banking products which can be used for daily intervals. Other than that Internet banking will be used for lumpsum amount to transfer with a systematic transaction record.

# **Objective: -**

- To study whether the residents of Mumbai are more comfortable to pay via online mode or still prefer liquid / cash.
- To study the comfortability, convenience & security under digital banking to pay online / cash.

# Research Methodology: -

In this research, the methodology section indicates how we conduct the research. This includes data collected from people, samples of study and methods covered in primary research. So, we mention below the detailed information about it

Primary Data: This data is collected by survey method. This survey has been completed through a questionnaire by providing Google form for customer / depositor's preview.

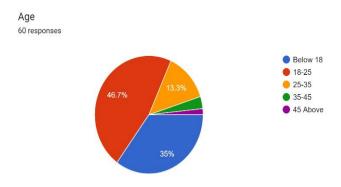
# Limitations of the research: -

- 1. This study only limited with Indian banks.
- 2. This study has been purely based on in order to understand the customer's utility / satisfaction.
- **3.** Some of the respondents were might provided biased and wrong information as unwilling to share private information for the survey.

**Data Analysis:** - The following is the data analysis of customers.

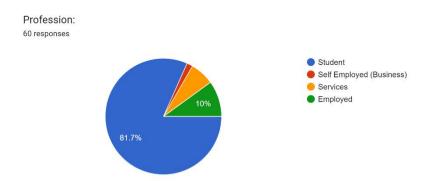
(Source: Online Survey)

✓ Age Group: From the below pie chart we observed that the most youth generation from age 18 - 25 uses digital banking at most. Youth / Young generation attracted most toward digital banking and it became very regular and integral part of life.



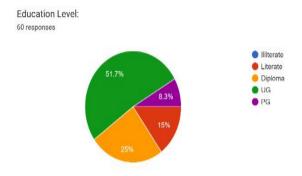
(Source: Online Survey)

✓ Profession: From the below pie chart we understand, majority / Most of 'Student's' category uses digital banking and the youth most uses such services provided by banks. Also employed people are as well a part of digital banking uses slight lesser than students community.



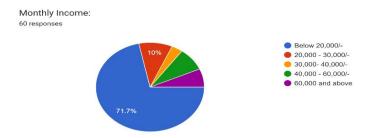
(Source: Online Survey)

✓ Education level: From the below chart we come a conclusion, most of Under Graduate (UG) students were part of digital banking, also literate people are also aware of digital banking



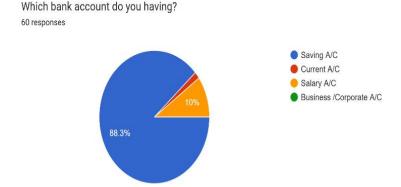
(Source: Online Survey)

✓ Monthly Income: By this survey we come to know such categories income should be below 20,000/- as most of students are part of this online / digital banking. Followed that we observed 20,000 − 30,000/- income group people are also engaged in such activities provided by bank.

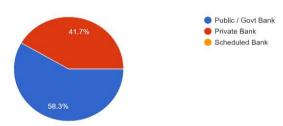


(Source: Online Survey)

✓ Which bank account do you having & In which bank? — Highest category having saving account in public / govt banks as it provides 0 balance to keep your minimum balance. Security toward public bank is very high than any other bank.

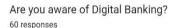


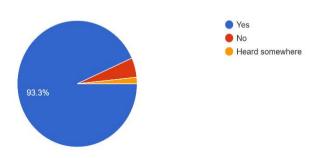
In which bank you having an existing bank account?



(Source: Online Survey)

✓ Are you aware of Digital Banking? - The highest community under Mumbai area, are aware of Digital Banking as it is an emerging and very growing achievements under digital banking sector.



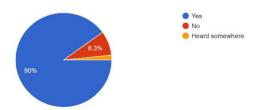


(Source: Online Survey)

✓ Are you aware of mobile banking? (GPay, PhonePay, Paytm, QR Code, BHIM) and Internet banking transaction? — Majority of customers aware of Mobile banking products as the young generation has captured most of the part of such facilities & conveniences. Such services / facilities /

# conveniences is very much important in this busy schedule.

Are you aware of mobile banking? (GPay, PhonePay, Paytm, QR Code, BHIM) and Internet banking transaction?

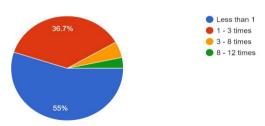


(Source: Online Survey)

✓ How frequently do you use an Automated Teller Machine (ATM) per month? — Here by observation, we come to know that if most of community using Gpay, paytm, phonepay for the regular transaction, they might not bring liquid cash hence less than 1-time usages of ATM come to conclusion...

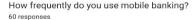
Also ATM is traditional facility provided by bank to depositors, majority of community using mobile banking over ATM.

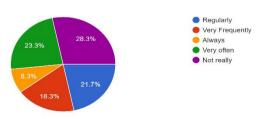
How frequently do you use an Automated Teller Machine (ATM) per month? 60 responses



(Source: Online Survey)

✓ How frequently do you use mobile banking? — Here maximum percentage of people are not really using mobile banking and suggestion on the same provided below, But not to forgot and needs to give attention on very often and regularly using people are also available in the community.

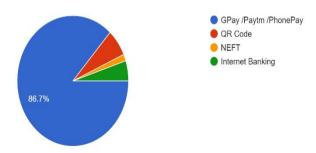




(Source: Online Survey)

✓ What are the most mobile banking products do you use? — Here people are more comfortable in Gpay, phonepay and etc mobile banking products instead of Internet banking, as it give very quick transaction / output.

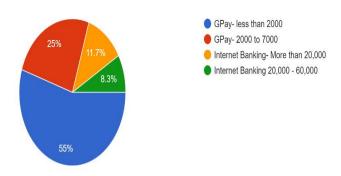
What are the most mobile banking products do you use? 60 responses



(Source: Online Survey)

✓ Till how much amount you might be comfortable /Confident to pay with Gpay & Internet banking? — Here people are comfortable on Gpay upto 2000, understood by survey. As most of the depositors uses more than 2000 amount via paying internet banking.

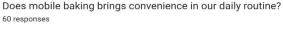
Till how much amount you might be comfortable /Confident to pay with Gpay & Internet banking? 60 responses

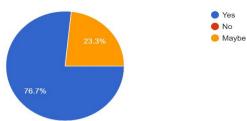


(Resource online survey)

✓ Does mobile baking bring convenience in our daily routine?

 Majority of customers suggesting answers towards
 positive and yes mobile banking brings convenience in our daily life, as it has quick, genuine and hassle-free transaction.

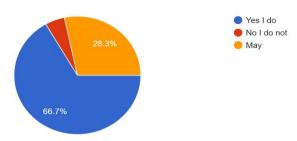




(Source: Online Survey)

✓ Do you feel secure to the facilities provided by banks in Digitalization? — Large community feel secure to the facilities provided by banks in order to make life and transaction very quick and hassle free.

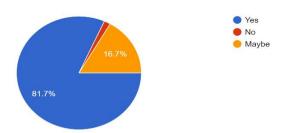
Do you feel secure to the facilities provided by banks in Digitalization?  $^{\rm 60\,responses}$ 



(Source: Online Survey)

✓ Does online banking provides more reach and frequency than traditional bank? — Large scope of digitalization in every sector is very wide and easily reachable hence in the banking sector as well there is very easy reach to every customer via digitalization.

Does online banking provides more reach and frequency than traditional bank?



✓ Would you like to give any suggestions in order to improve the current online banking system? –

After studying the suggestion of the respondents many of are not using the digital banking regularly because of serve issues. We cannot always dependent on mobile baking and not carrying cash as the server issues occurs very regularly.

Respondents were understanding that due to increase in IT sector this all issues occurs but of course this should break any of customers convenience and trust towards bank and their facilities.

Server problem occurs the most in public banks and very often in private banks.

Here some of the important suggestions provided by respondents were resulted into dissatisfaction due to server problem.

### Conclusion: -

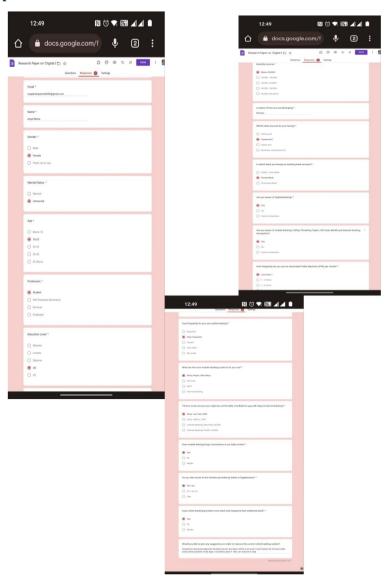
At the end, all the depositors associated with public or govt banks are little happy with the facilities and convenience provided but such facilities and convenience are not really at every point of time. Most of the time server is either busy and not working which resulted into dissatisfaction of the customer. As we all know that, there is a chance of fraud or cheats happen mostly into digital banking by providing a simple OTP OR DEBIT / CREDIT CARD PIN, govt is taking appropriate action against these activities and making aware the part of banking sector. Each bank who is providing such facilities are need to provide utmost satisfaction to the customer by your services. Today's generation is very fast and more interested into such facilities, if such dissatisfactory services persist banks will lose their customers from such facilities and convenience. Such facilities not only make dissatisfy to any consumer but also it will result to no trust on the bank by the depositor. Due to increase in IT sector this all thing should need to happen for maintaince purposes, but should be certain period of time instead of all day and two. Also, except than youth / young generation most of liquid cash are used by majority of people. Digital banking will become less visible because of it will be more embedded in lots of daily activities with the help of all emerging technologies available in our country. So hence we conclude that majority of community are unsatisfied / facing disutility only of the server issues even in the working days.For simple and quick payments server issues needs to resolved.

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- 5) Luigi Wewege (2017), The digital banking revolution, second edition, lulu.com publisher.
- 6) Google Form link: <a href="https://forms.gle/UZ2VSiLVv6AqBnc48">https://forms.gle/UZ2VSiLVv6AqBnc48</a>

# Some of the responses are as follows:

# Response 1: -



# Response 2: -



# **CHAPTER - 14**

# THE STUDY OF THE ROLE OF NEW ONLINE BANKING SYSTEM (NEO BANK) IN THE BANKING SECTOR OF INDIA

Neha Talati Assistant Professor U. M.V. College, Nagpur

### **Abstract:**

The tradition of Neo Banks started a few years. Whose circulation is increasing now and people are adopting Neo bank. This situation is even bigger after Corona. Neo Bank is today's bank providing banking facilities through a digital medium. These banks do not have any kind of physical presence. In this, all the banking facilities can be availed through the mobile application. Neo Bank is a type of virtual bank from which a facility can be availed anytime and from anywhere. But for availing banking facility in any ordinary bank, one has to be physically present. Through Neo Bank, a faster facility is provided to the customers in digital form, which saves time and does not involve any kind of paperwork. Whereas traditional banks are still doing their work through paper means. And converting these banks into digital form is a big challenge that they are battling. The role of the new online banking system (Neo Bank) in the banking sector of India has been studied in this research paper.

**Keywords:** New Online Banking System (Neo Bank), Banking Sector of India, Physical Presence, Digital Banking

### Introduction:

Neo Bank is a digital bank that does not have any branch. This bank should be a digital bank that works only online and does not have any branch. It provides technically superior service to the customers as per their requirements. It is a kind of fintech firm, which provides online facilities like digitized money transfers, and money lending. In this, all the services are available through the mobile app. Neo Banking is becoming famous in the abroad and country. Most people are using online banking and digital payment mode for their day-to-day activities. The online financial service is focusing on the great experience of the Custer. There is still a big gap between what the banking platforms are offering and the demos of the customers. Neo Bank is working to bridge this gap.

Neo Banks are financial institutions that offer customers a cheaper alternative to traditional banks. They leverage technology and artificial intelligence to provide personalized services to customers while reducing operating costs. Neo bank entered the financial system with the tag of 'Challenger Bank' as they challenged the complex infrastructure and 'client onboarding' process of traditional banks. In India these firms do not have any bank license of their own, they are dependent on bank partners to provide licensed services. This is because RBI has not yet allowed banks to go 100% digital. RBI is firm on prioritizing the physical presence of banks and has also talked about the need for some physical presence for digital banking service providers. Examples of top Neo banks in India are RazorpayX, Jupiter, Neo, Open, etc.

Unlicensed fintech firms, in association with traditional banks, maintain a mobile/web platform and a wrapper around the products of their associate banks. Traditional banks that are taking digital initiatives. Licensed Neo bank (usually with a digital banking license in countries that allow it).

# Difference between Digital Bank and Neo Bank:

Digital banks and Neo banks are not the same things at all, even though they prima facie appear to be based on the emphasis on the digital operating model. While these terms are sometimes used interchangeably, a digital bank is often established and regulated window-based online company in the banking sector. Neo Bank exists completely online without any physical branches, independently or in traditional partnerships.

# The Role of The New Online Banking System (Neo Bank) In the Banking Sector of India:

Neo bank works through a single network. And the facilities provided by them are also economical. The entire focus of these banks is to reach the convenience of the customer. Just like going to any traditional bank, one has to wait for hours for work. You have to stand in line to deposit and withdraw money. There is no such hassle in Neo Bank. The way of working of Neo Bank is very selective and its attention is on the selected customers. We try to connect customers through lucrative schemes. Their fees are also less. Neo banks have a special focus on technology. In this, data is controlled through cloud technology. Their financial system is of the highest order. All the facilities like Forex cards, credit cards, cash processing, cost management, corporate banking services and loans, etc. are given by these banks to their customers like common traditional banks. Artificial intelligence technology is used for customer support in Neo Bank. It gives its solution to the customer's query.

According to 2018 estimates, the total credit of Neo Bank in the world is \$18.6 billion, which is expected to grow by 46.5% every year and by 2026, the total credit of Neo Bank will increase to \$394 billion. Neo bank facility in the world is being provided through InstantPay, Niyo, Open, RazorpayX, etc. ICICI Bank is in the lead role as a partner of Neo bank in India.

Neo bank license is taken in two ways. (a) Self-application should be made to RBI to start Neo bank, which should be approved on fulfilment of the standards set by RBI. (b) The application should be made to run Neo bank through the traditional banks, which should be accepted by RBI. But according to RBI's 2014 guideline, any bank must be physically present. For this reason, RBI does

not directly license any Neo bank, it has to partner with any traditional bank.

Traditional banks have several advantages over Neo Bank, such as funding and most importantly, customer trust. However, legacy systems are losing their importance and find it difficult to adapt to the growing needs of the tech-savvy generation. Neo Bank does not have the funds or customer base to overthrow traditional banks, while they have the innovation. They can launch features and develop partnerships to serve their customers more quickly than traditional banks. Neo Bank caters to the needs of retail customers, and small and medium businesses, tasks typically performed by traditional banks. They are closely watching the market opportunities for such banks and taking more interest in them. The smartphone penetration rate in India was 54% by the year 2020, which is projected to grow to 96% by the year 2040. Even though 80% of the population has access to at least one bank account, the level of financial inclusion has not improved yet.

Fewer regulations and the absence of credit risk allow Neo Bank to keep its costs low. Products are generally inexpensive, with no monthly maintenance fees. These banks provide most (if not all) banking services to customers through an app. Neo Bank allows customers to open an instant account and process requests faster. They offer innovative strategies for loan appraisal, limiting the more time-consuming application processes. Neo Bank is transparent and strives to provide real-time information and explanation of any charges and penalties levied on customers. Most of the Neo Banks provide dashboard solutions with highly advanced interfaces and provide services like payments, payables, and receivables, bank statements in a more accessible manner.

Fewer regulations and the absence of credit risk allow Neo Banks to keep their costs down. The products are generally affordable, with no monthly maintenance charges. Neo Banks allows you to do the majority (if not the entirety) of your banking through a smartphone app. Apart from basic banking functions, you need to be able to manage your finances and predict the movement in your account to prevent problems. These tech-savvy organizations allow customers to set up accounts and process requests rapidly. Loan Providers Neo Bank can skip the rigorous and time-consuming loan application process in favour of innovative strategies to evaluate your credit and speed up the process.

If you don't want to keep up with the technology trends, you may want to avoid banking with state-of-the-art institutions like Neo Bank. If you are not comfortable tapping and swiping your way through the brand-new app, you will not be able to take full advantage of the offer. Some people enjoy discovering new technology, but if you don't, Neo Bank may not be right for you. Since Neo Bank is not legally considered a bank, you may not have any legal recourse or well-defined process if there is a problem with the App, Service, or non-regular third-party service provider. As for who will be responsible for potential fraud and errors, customers are on the hook to make sure their Neo Bank offers some form of deposit insurance, such as the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Share Insurance Fund

Doing everything online is getting a lot easier, and Neo Banks often partner with ATM networks, but some people want to visit the branch and bank in person. This is especially true when it comes to complex transactions. Many Neo Banks offer robust customer service tools, but some customers may prefer to ask questions in person.

Neo Banking can serve to address the challenges of financial inclusion and expand measures taken to integrate banking services with other financial services, for example, services such as opening bank accounts for immigrants, based on traditional documentation of identity. Facilitating new onboarding procedures. Neo Bank can expand by adding more functionalities

and services over time with smaller targets initially. Although digital and neo banks are gaining momentum, most have yet to demonstrate a state of consistent profitability. Despite this, they have great potential to disrupt banking and financial services. Traditional banks will have to re-adopt technological processes to transform into more profitable institutions and provide smooth and fast customer service to customers by investing in modern-day technology.

# Challenges before Neo Bank:

The key to Neo Bank's success lies in meeting the needs of a segment of the market and adopting the right technology, business strategy, and work culture. Since the RBI has not yet recognized Neo Bank, officially customers may not have any legal aid or defined procedure in case of any problem. Since Neo Banks does not have a physical branch, customers do not have access to personal assistance. Neo banks generally offer fewer services than traditional banks.

## **Conclusion:**

The Reserve Bank of India is keeping a close eye on the Neo Bank business model, where fintech become connected to the network of a traditional bank and become customer-oriented banking service providers. The concern is that the digital model business can grow very quickly and be larger than the underlying bank in terms of customers. Although Neo Bank customers remain account holders of the underlying bank, the only channel available to these users is a fintech-owned digital platform. Excessive use of technology is also a cause for concern. Right now, there is no rule to control Neo bank, so who will be responsible for the customer's money in any bad situation? There is no physical branch. People in India rely more on physical mediums regarding money. As much as it has advantages, it also has some drawbacks. on which not much work has been done. that need to be removed.

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