A Study on Trends in Digital Banking Sector

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Abstract: Banking sector plays the major role in the development of the economy. With the day to day modernization development new technologies have evolved, by which the usage in public got increased. Digital banking has become an important part of the banking system, where customers can access banking services at the tip of their fingers. The change from traditional banking to the modernized banking from the usage of paper cash to digital forces like Mobile, Analytics, Cloud, Internet of Things etc., have emerged. The sector got revolutionized with the digital trends by converting into computerized banking system through web ignoring all the desk work, changing from conventional banking to convenient banking 24/7. The banks act as the monetary middle man in India changing it into the accommodation banking, by evolving time to time through various stages from ages. The banking sector is getting updated day to day, in which the digitalization has its main standards; the services took a major shift while facing challenges. Digitalization in banking is caused through many drivers which Demonetization played a major role. The Demonetization has affected the Indian economy through Political Social, Ecological etc., with the influence on banking operations that resulted in overall factors. The payment systems in banks got developed and updated in a digitalized way. There are n number of payment systems in the market and new joining every day. The main factor is security, functionality and user friendly. They have their own restrictions advantages and limitations all the way.

Keywords: Digital Darwinism, Regularization, Liberalization, Digitization, Demonetization, Computerization, Conventional, Convenient, Digital Payments.

I. INTRODUCTION

The banking in India has shown a new era from past few decades. The banks were first setup in the 18th century. The bank of Hindustan was the first bank and then the RBI got established in the year 1935. The history of banking development was divided into three phases:

1) Phase I (1786-1969): The beginning of banking
2) Phase II (1969-1991): Nationalization and Regulation
3) Phase III (from 1991): Liberalization and Digitalization

Digitalization is converting of data into digital format by adopting technology. It helped banking in merging services over the net, which aim to serve both banks and consumers in a convenient, faster experience than traditional banking. Computerized banking is digitization, of all the financial exercises and projects which were accessible to clients when physically with bank. The advanced stage, getting rid of all the desk work it includes the accessibility of all financial exercises on web.

The banking sector trends got evolved time to time, from the year 1960 digitalization in banking has started with the arrival of ATM’s followed by internet in 1980’s then the broadband got improved and mobile banking has made an advancement. It gives you the advantage of all conventional financial exercises 24*7 without visiting a bank in personal. On the other hand the customer satisfaction was the main and major factor by providing services and services 24*7.

A. Need And Importance Of The Study

The present study is an attempt to check the developments and drastic changes that under go by banks. As banks adopt new technology and services to update themselves and strive to compete in the market. The study is to have a better knowledge on banking sector and utilize the services with its growth and development. There are no certain limitations and end for any banking and financial sector. The importance is to know the changes and effects of change on the sector.

Its major role is to diversify funds, deposits and providing credits in an easy and effective way to the customers reducing the risk and troubles.
B. Review Of Literature

1) Anthony Rahul (2007) in the paper the study was regarding the digitalization in the Indian banking sector, the role of digitalization in banking its advantages and disadvantages in the banking sector.

2) Abhani Dhara (2017) the study was on the impact of Demonetization over the banking sector with the history and concept including sample design of data collection and questionnaire.

3) Manisha Varma (2018) the paper is dealt with the role of digital banking its advantages and disadvantages the traditional banking system and the effect and process on the HDFC bank.

4) Padmavati Agarwal (2018) the paper deals with the study of Demonetization effect and analyzing the results of pre and post Demonetization and its impact in the banking sector operations.

C. Research Gap And Problem Statement

The above review of literature stated the beginning of Digitalization in banks, the role and advantages. They worked in a point of view of a single bank data, the innovations in the banking sector and the recent trends that developed with raise in technology.

No study has focused on the digital revolution, history, and the trends in the sector with challenges and customer requirement. The Demonetization effects on digital banking, results and trends. The digital payment systems and its advantages of digital banking with the changes occurred time to time.

D. Scope Of The Study

In pursuance of the study, attention shall be focused on the impact of changes occurred in the banking sector. To know the level of changes, growth-focused year to year. Managing the advantages of change and implementing it in the development process.

E. Objectives Of The Study

1) To study the digital revolution of banking sector.
2) To study the demonetization effects on banking.
3) To study digital payment systems in banking sector.
4) To study the advantages of digitalization in the banking sector.

F. Research Methodology

The project is more conceptual in nature from the secondary data. A small part of data is from the official website of RBI, and from sources including research papers, magazines, articles and websites.

G. Limitations Of The Study

1) It is a general topic hence collecting primary data has a low scope.
2) The analysis and project is done completely on secondary data publications journals, news articles.
3) The study is completely on the pre-made data which is extracted from the available information sources and hope to be accurate.
4) The creation is made on the digitalized banking sector which is based on the limited study and information.
5) The study is theoretical and analysis part is much low.

II. INTRODUCTION TO DIGITAL REVOLUTION

The stage of Digital Darwinism is a revolution of technology with a complete change in the banking and financial sector. Digital banking is the important part of the banking sector, where customers access services on their fingertips. The technological forces like mobile, analytics, cloud and internet of things changed in an efficient manner and play a win-win situation for both banks and customers. The shift from the traditional banking to digital is completely on regards to the customer’s satisfaction. The safety of customer’s transactions and satisfaction matters. Branches had been an important channel for services as from a survey’s report said that the customers prefer to open an account or apply for any other service in person. The survey indicates that consumers who use self-service channels like mobile, online, tablet, has a greater need for financial products.

It’s been a back to back progress from last 40 years from the physical branching then the internet development, the data storages with intelligence from the retail side. The capital markets and infrastructure started automations and the computerization gained a pace in the development in the economy.
A. Trends Of Digitalization In Banking Sector

1) Digitization: Modern trends with the installation of technology and digital solutions with better activities.
2) Mobile Banking: The use of smart phones for various activities taken over the traditional activities.
3) UPI: The change in the way of payments that are interlinked with the bank accounts and been from the national payments corporation of India.
4) Blockchain: Uses “technology to create blocks, process, verify and record transactions, without the ability to modify them like stock exchanges, share markets.
5) Artificial Intelligence: Robots are the fastest growing popularity dealing with customers in personal requirements with using chatbots
6) Fintech: The use of financial technology by connecting to various institutions
7) Cloud Banking: It is a hybrid technology or sorting the data over the net.
8) Biometrics: Linking of Aadhaar number to the bank accounts by evaluating one or more biological traits like face, hand, retina, and voice features to make an issue.
9) End to End Digitalisation: The encrypted services with the customer’s expectations high through the digital platforms.
10) ATMs shut down: According to RBI the total number of ATMs in India was reduced by 1.684 by 2017, due to operational costs and shift to digital transactions.
11) Applications: The mobile applications are providing financial services through networks. They started moving as the third party initiatives and companies to partner services directly without involving the middleman.

B. Services Provided By Banks

The main intention of digital banks is to provide better conditions and services to the customers. The regular services got changed with the development.

1) Fund Transfers: To move assets is one of the most important points of interest of digital banking. The use of digital banking to move assets to anybody with the help of IMPS, RTGS, NEFT, etc., other than the mobile banking apps.
2) Money Withdrawal: With the ATM’s for withdrawals there is no need to visit bank. Computerized banking makes you to pull back money from ATM’s anywhere anytime.
3) Getting Statements: To download bank articulations for any period whenever without visiting banks to get prints rather on your gadgets to get it whenever it is needed.
4) Bill Payments: Digitalization has made simpler to pay bills regardless of its fields even the recharges of cell numbers. It has changed the regular day to day existence of the person.
5) Investments: Contributing was never been simpler, for instance opening a fixed deposit with the bank, utilize digital banking to make interests in different instruments and can put resources into sources through net banking, purchasing of protection items and advances.
6) Monitoring Transactions: To follow the exchanges done, records to maintain and managing the accounts is all a part of monitoring.
7) Stop Cheque: Any wrong written cheque that needs to stop and refresh the cheques with the bank administration.
8) 24*7 Availability: Any service that is required can be done or attained at any time as he wishes. They can be done even on holidays with the digital banking.
9) Lower Overheads: Digital banking has considerably reduced the operational cost of banks. This has helped banks to save money and can cut down expenses costs. Lower the operating cost, higher is the profit margin of the banks.

The challenges that are faced by the banks like security risks low awareness of customers fear factors about the change. Customers expect to have a better control and connection among the business, they focus on the trust and loyalty with the speed and accuracy.

III. INTRODUCTION OF DEMONETIZATION

The act of removal of old currency and replacing with the new currency is Demonetization it was done by the apex bank and the government. It is from the French word “demonetiser”. The reasons for the Demonetization are: To fight with the threat of inflation, to beat corruption, to remove old currency, to discour age the cash flowing in system and encourage trade and make the country a digital society.

Demonetization occurred twice in the past the first as on 12th January, 1946 by the RBI, the second time on 6th January 1978 by R. Janaki Raman of RBI, Finally the 3rd, recent had been announced as on 8th November, 2016
A. Impact Of Demonetization

1) The demonetization has impacted on the various fields on the Political impact where it has been a curb on black money and support towards the political parties from the younger and educated systems have increased and transparency of flow of funds has an impact too.

2) The social impact has more affected on common man the rules to withdraw money was worse and limit of 2000 per day and 250000 with conditions in case of marriage and other transactions that led to a dissatisfaction and anger of common man.

3) The economic impact in a route to purify currency where the problem in both public and private sector banks are facing the issue of Non-Performing Assets (NPA) and Bad debts got reduced. This helped the banks to recover some bad loans and improve the financial position. The income tax payments from the common man have also got increased from 4% to 28%. That even resulted in the cashless economy in India.

B. The Influence On Banking Operations

The increase of deposits in order to exchange the old banned currency into flow of banks, in addition to that cost of funds got decreased and the value of government bonds got to hike up with the increase the return added up to 15% to 20%. Lending of money as loans got to decline as the effect of reduced interest rates.

C. Results of Post Demonetization

1) Free Flow of Deposits: The deposits have increased substantially after the effect by which the investments improved in liquidity.

2) Improved Digital Interface: The increase in the use of digital platform the transactions in banks got much easier and comfortable and led to decrease in cash loss due to theft, dacoits, misappropriations and fake money.

3) People’s Surplus at Bank: Cash is an idle asset, which does not earn any income unless it is invested. People started to keep their surplus money in a formal institution to invest and earn additional income.

4) Increased Number of Customers: Demonetization has influenced people to deal with banks that led the non-income group to open savings accounts, deposits and investments.

5) Curbing of Black and Fake Currency: The finding of black money has got much easier to the officials and fake currency and reduction of printing currency got tough time.

6) Increase in Welfare Programs: As the money is directly connected to accounts and recipients it has much better efficiency in welfare programs.

7) Waiver of ATM Charges: ATM charges got waived off during note ban and the banks incurred a loss in every transaction.

8) Waiver of Merchant Discount Rate: Banks lost discount charges from merchants on card transaction.

9) Stress on Employees: Employees were kept under work pressure led them to get depressed and imbalance in life cycles. The absence of money made banks to face the anger of customers, even though they were helpless to meet their demand.

D. Trends That Are Defined After Demonetisation

1) Growth of Debit Cards: The number of debit and credits cards grew by 29% from the year 2016 i.e. after the Demonetization effect later in the year 2018 the growth declined in certain amounts, at 1.5% and the total cards in the country is almost 900 million. The level of growth of debit cards post Demonetization which was nearly 1%, where by the credit cards maintained its average growth of 20% in the year 2017-18. The growth is back to incline with 13.6 % by 2019.

| Year | Debit Cards in million | Credit Cards in millions |
|------|------------------------|--------------------------|
| 2016 | 662                    | 25                       |
| 2017 | 855                    | 30                       |
| 2018 | 861                    | 37                       |
| 2019 | 980                    | 41                       |

Table No. 3.1 The data of growth in debit and credit cards.

Source: RBI
2) Increase in the Digital Infrastructure: Digitalization has been adopted more after the Demonetization. The point of sale terminals got to be increased in the year 2016-17 with the growth of 24% i.e 2.53 million and it is about 3.08 million by the year 2018. On the other hand at the same time the ATM’s got to decline as deployed by the banks it has a marginal decline to 222,247 from 222,475.

| Year | ATM  | POS in million |
|------|------|----------------|
| 2016 | 2,12,061 | 1.38           |
| 2017 | 2,22,475 | 2.53           |
| 2018 | 2,22,247 | 3.08           |
| 2019 | 2,28,422 | 3.33           |

Table No. 3.2 The growth of Digital Infrastructure
Source: RBI
3) **UPI Plays the Key Role**: Despite of Government’s encouragement of digital payments the UPI infrastructure has stood with the total payments of 17.9 million in the year 2017 and then was adopted by many other private players in year 2018 and the number of transactions has increased in 1000’s of percentage with 915 million and funds transferred up to 1.09 lakh crore.

| Year | Volume in (INR Bn) | Volume in (Mn) |
|------|-------------------|----------------|
| 2017 | 69                | 15             |
| 2018 | 1098              | 915            |
| 2019 | 3420              | 2062           |

Table No. 3.3 UPI Growth after the Demonetization
Source: RBI

[Chart No. 3.3 UPI Role in Growth](chart)

4) **Physical Card Purchases Increased**: The usage of debit and credit card transactions got doubled in the year 2016-17 and stood at 5.4 billion rupees. In 2018 the cash purchases have decreased the transactions through POS had gone increasing by 50% with 8.2 billion rupee transaction.

| Year | Volume (Mn) | Volume in (INR Bn) |
|------|--------------|--------------------|
| 2016 | 4483         | 2707               |
| 2017 | 5600         | 3500               |
| 2018 | 7421         | 5450               |
| 2019 | 10607        | 8280               |

Table No. 3.4 The growth in the purchases through Physical Cards
Source RBI

[Chart No. 3.4 Increase in card Purchases](chart)
5) **Reduction in Withdrawals:** The total amount of cash withdrawn from ATM’s were at 23.63 lakh crore by the year 2017 it got effected by the curb on the withdrawal limit of 2000 INR after the Demonetization and increased by 6% in the year 2017-18. By 2019 there is no much change in the cash withdrawals and has grown by 22%.

| Year | Volume in (Mn) | Volume in (INR Bn) |
|------|----------------|-------------------|
| 2016 | 25402          | 8079              |
| 2018 | 23631          | 8569              |
| 2019 | 29024          | 8610              |

Table No. 3.5 Withdrawals Reduction  
Source RBI

6) **Increase in Mobile Banking:** The mobile banking is being the most efficient type of mode of payments after 2016 i.e the post Demonetization. Earlier the mobile banking has a less scope and low market stake and size with the impact of digital payments and ban of currency notes both the payments and market size for the mobile banking has a great broadening. By the year 2016 the market size was below 20,000 billion rupees of payments and less than 2% of market size. As the growing impact by the year 2020 it is being expected to grow by 100,000 million and 5% of market size and payments respectively. It is being estimated to have a growth of double that of 2019.

IV. **INTRODUCTION OF DIGITAL PAYMENTS**

The Digital India is a flagship program by the Government of India with a target to achieve and transform India into a digitally empowered society and knowledgeable economy. The “Faceless, Cashless, and Paperless” is one of the major qualified roles of Digital India.

As a part of promotion of cashless and digital transactions and converting India into cash-less society, with various modes of digital payments. With the Demonetization effect simultaneously the launch of Digital payments took its place in November 2016. That provided an extensive boost up to the Digital India. The government and private Sectors are together running the Digital system hand to hand. The people using Digital payments are advanced compared to the traditional payment system. The initiatives of BHIM and UPI are supporting in this phase and easy to adopt, the electronic transactions with the help of internet banking.

In general words Digital Payments are the transactions or payments that are made in the digital modes in which the payer and the payee both are connected to the Digital methods to send and receive money. “This is also called as electronic payment system without any hard cash involvement”. It is an instant and convenient way to make transactions with easy steps to complete the payments.

The payment systems had grown time to time from 1835 to now the payment systems have changed from different metals gold, silver, copper and different metals depending on their value. Then the East India Company had introduced Rupee to bring uniformity.
A. The Types of Digital Payments
The banks aim to provide fast, accurate and quality of banking and experience to their customers. The main vision for all the banks is digitization. The launch of “United Payments Interface (UPI) and Bharat Interface for Money (BHIM) by The National Payments Corporation of India (NPCI)” are significant steps for innovation in the Payment Systems domain.

1) UPI Applications: United Payment Interface is a mode of payments which is used to make a fund transfers through the mobile application by using mobiles.
2) AEPS: Aadhaar based Digital Payment mode it stands for Aadhaar Enabled Payment Service using respective Aadhaar numbers.
3) USSD: The USSD banking or *99# Banking is a digital payment mode of mobile banking. That doesn’t need any smart phone or an internet connection.
4) Cards: A Card is provided by the bank to its account holders. Cards have been the most digital payments till now as for transferring of funds and making digital payments.
   a) Credit Cards: The Credit cards are issued by banks and other financial institutions authorized by RBI. These cards give you an extra amount of money to withdraw.
   b) Debit Card: The debit cards are issued by the bank if you have an account. Amount withdrawn is only to the limit of your savings.
5) E-Wallets: E-Wallets or mobile wallets are virtual accounts maintained by mobile phones can use to make online payments and online shopping that showed an increase in the transactions to develop the technology and increase in the use of smart phones.
   a) Paytm: PayTM is one of the largest mobile commerce applications in India, offering digital wallets to store and make quick payments.
   b) Amazon pay: Amazon Pay is an online payment application with processing service. It has been launched in 2007 in other countries and in India in the year 2017.
   c) Google Pay (Formerly Known as Tez): As its part of the Google ecosystem they have scaled up their user base really quickly, in spite of being a late entrant.
   d) PhonePe: PhonePe has started in the year 2015 and in a span of 4 years it has crossed the 100 million download mark. Now it is a part of Flipkart.
   e) Mobiwik: MobiKwik is a mobile payment network that connects users and retailers independently.
6) BHIM: BHIM Axis Pay is a UPI based banking application that lets you transfer money instantly using smartphone.
7) RTGS (Real Time gross Statements): This service is a fund transfer mechanism from one account to another, the transfer of money takes place in real time or on gross basis. The minimum limit is Rs. 2 lakh rupees per transaction
8) NEFT: This National Electronic Funds Transfer service facilitates online transfer of money by an individual or by a company. The accounts may exist in any other bank. The transactions in NEFT are long processed includes revalidations and accountability.

B. Elements Of Digital Payments
1) Security: In general people equate the banks with the matter of security. The more the customer feels secure, the faster they will get in and try new features. Security is a major cause and concern when the matter is on payments become digital.
2) User Experience: User experience seriously a requirement and quite a few of them are innovatively redesigning important interfaces. The dealing with funds customers look for user-friendly and convenience.
3) Functionality: The proper functionality of an application cannot be estimated and emphasized. As more financial transactions get transferred from a bank branch to mobile phone, the quality of bank applications will become a point.
4) Performance: The performance of an application can either drive the customer to the business or leave the business. Digital banking needs to take precautions in this regard.
5) Data Integrity: Banking is the most important service that runs completely on the matter of trust and the customer is sole responsible for his authentic information.

C. Advantages Of Digitalization
1) Easy and convenient: Digitalization has made payments easy and convenient. Carrying loads cash along is a risk and that got decreased.
2) From Anywhere and Anytime: With the digital payment modes, payments became easy from anywhere and anytime.
3) Discounts from Taxes: After the Governments initiation towards digital India it has announced many discounts and offers to encourage digital payments.
4) Written Records: Many often forget to note down your cash expenditures, even if you think it takes a lot of time.
5) Less Risk: Digital payments are less risky if used them wisely. Even if you lose your mobile or debit/credit cards or Aadhaar card there is no need to worry.
6) Cost Efficiency: These days’ time is measured with money, with the less time and efforts through the increased efficiency and speed transactions with the use of ATMs, cashless transactions it got better and less cost.
7) Transparency and Security: With the increased accountability and tracking corruption got reduced and it is much secured with servers and planning the theft and hacking got low chances.
8) Financial Inclusion: By providing advance access to the range of financial services, including saving accounts and insurance products are incorporated and made it with a group through building the institutions the effect of cost savings, increased transparency made the financial inclusion better.
9) No Discrimination: As with the use of technology the discrimination got decreased as technology is non-discriminatory everyone will be treated equal at banks operations irrespective of their fame and status.
10) Reduced Human Error: With the increase of digital forms and technology the errors get decreased as Man can make mistakes machine works as it is made to work. The repetition of work is also a reason for errors. Hence the human error got decreased.
11) Reduced Gaps: The gap of rural and urban discrimination is eliminated and managed by the digital banking. The gaps are filled and less scope for fake currency threats with the increased technology and less usage of physical currency.

D. Challenges of Digitization In Banking
In any innovation with the advantages there will be an effect of disadvantages to consider.
1) Digitalization has reduced the effort of employees and lowering the need for physical Workers hence results in job loss and raise of unemployment.
2) In some places with the use of technology and digital effects some bank branches might have to exit and stop their branch operations with the increasing use of online banking.
3) Banks will be more vulnerable to cyber-attacks and hackers and an option to maintain security.
4) Privacy might have to be compromised. No one can hide crore of rupees in banks and just act low class.
5) It is not that the banks are going to have less work but the role of retail banking sector faces changes.

V. FINDINGS
A. Banking sector is influencing different industries in the markets with its functions rules and regulations and manages to survive in the market by updating to the digitalised trend creating the revolution.
B. By creating opportunities and employments to develop the standard of living. Banks develop themselves by adopting new changes and technologies to survive in the market competition.
C. How much ever the development it has undergone with the customer satisfaction and safety stays as an evergreen vision.
D. The demonetisation is one of the main drivers of the digitalisation. They got to face many challenges while implementing, to maintain, creating networks and assets in other external factors. It created many ups and downs in the economy and a created an unexpected change.
E. The payments systems are the main part in the digital they are getting struck with the network issues and low secured data bases.
F. The digitalization has both the pros and cons in managing. The changes banks make and undergo with high sustainability, create better scope in several diversified aspects.

VI. SUGGESTIONS
A. The above mentioned situations and problems are temporary and can be changed with the effects and proper planning.
B. The loss of jobs due to digitalization can be compensated into other fields by training and guidance.
C. The demonetization effect has created a great impact on low and middle class people in the society which could have done by creating awareness and knowledge on digital structures before the implementation.
D. The safety and security can be made much more stronger and effective in the payment systems.
E. The network systems are ruining the digital payments and creating the inconvenience in transactions that can be developed and provided with quality.
F. The process of digital banking and linking with the required documents shouldn’t be complex and hard to manage.
VII. CONCLUSION

The project concludes that banking sector plays the major part of the economy with many operations and functions that do deal in development of economy. The transfer of traditional banking to the digitalised sector was a major task. That includes banking structure, positions, history, digital payment structures and the impact of demonetisation in driving the digitalisation. The sector in overall growth and development. The sector had faced many hurdles to adopt the changes, to face the competition and survive in the markets with customer satisfaction and security.

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