



**IJIRCCCE**

e-ISSN: 2320-9801 | p-ISSN: 2320-9798



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

Volume 11, Issue 4, April 2023

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

**Impact Factor: 8.379**

9940 572 462

6381 907 438

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# Impact of Digitalization on Banking Sector

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**ABSTRACT:** Digitalization is the new buzz or the latest expression in all the sectors. It refers to the use of digital technologies to change a business model and further provide new revenue and value-producing opportunities. The world has seen a rapid advancement in technology over the past several decades. Technology has left an indelible mark on everything and anything that human beings can fathom. There has been seen technology outburst in all sectors and banking has been one of the sectors to adopt information technology. All over the world, banks are making a tremendous stride towards digitalization to cope up with the competition and provide their clients with the best services.

**KEYWORDS:** digitalization, impact, banking, sector, technology, competition, services, clients, business

## I.INTRODUCTION

Digital Banking” refers to digitalizing the traditional methods of banking to conduct banking transaction more smoothly. <sup>1</sup>Contrary to traditional banking, digitalized banking aims to make versatile computerized products and services to fulfil the requirements of their digitalized clients. The introduction of digital banking has revolutionized the banking sector and modified the entire procedure bank transfers, it has facilitated the purchasers assisting them to see their account details, pay online bills and transfer money from one account to the opposite during a faster way. This has helped the end-user to enjoy a methodical financial life, further embracing hassle-free online banking. The need for computerization was felt within the Indian banking sector within the late 1980s, where there was a need to enhance the customer service, book-keeping and MIS reporting. In the late 1980s<sup>2</sup>, India was marred by various financial reforms and therefore the banking sector felt a requirement to enhance customer services and computerization of recording and accounting of knowledge. A committee was found out in 1988 by the Federal Reserve Bank of India which was headed by Dr C. Rangarajan to review Computerization within the Banking Sector. After the introduction of the Liberalization, Privatization, and Globalization (LPG) policy, the method of digitalization picked up the pace alongside the change within the Indian Economy. The method of computerization gained pace with the reform within the Indian economy in 1991-92 at the time when private and foreign banks entered the Indian market meaning to digitalize the economy and improve the services provided by the general public sector banks to the purchasers<sup>3</sup>. 1996-1998 were the years of internet banking/e-banking adoption in India after which, within the year 2000, the govt of India enacted the Information Technology Act, 2000 to provide legal recognition to electronic transactions and other means of electronic commerce. The digitalization within the banking sector is often seen in India since the establishment of ATMs.<sup>4</sup> Further developments like Telebanking, Electronic Compensation Service, Electronic Funds Transfer system, MICR, RTGS (Real-Time Gross Settlement), Point of sale terminal, etc. are often seen within the banking sector. E-banking has resulted in reducing costs drastically and has helped generate revenue through various channels. Various steps and initiatives had been adopted by the RBI and National Payment Corporation of India in strengthening the Payment and Settlement Systems in banks just like the launch of United Payments Interface (UPI) and Bharat Interface for Money. It is due to such initiatives and platforms, customers now don't have to store or carry cash alongside them anymore, they will now make transactions anywhere at any time.<sup>5</sup>

Today banks aim to provide fast, accurate and quality banking experience to their customers. Today, the topmost concern for all the banks in India is digitization. The Indian Government is at a high rate is promoting digital transactions. The launch of the United Payments Interface (UPI) and Bharat Interface for Money (BHIM) by National Payments Corporation of India (NPCI) are the 2 major significant steps for innovation within the Payment Systems domain in India. UPI is a mobile interface where people can make instant funds transfer between accounts in several banks supported virtual address. As per the RBI Report of 2016-17, there are 2,22,475 Automated Teller Machines (ATMs) and 25,29,141 Point of Sale devices (POS). Implementation of electronic payment system like NEFT (National Electronic Fund Transfer), ECS (Electronic Clearing

Service), RTGS (Real Time Gross Settlement), Cheque Truncation System, Mobile banking industry, Debit cards, Credit Cards, Prepaid cards have all gained wide acceptance in Indian banks. These are all remarkable landmarks within the digital revolution within the banking sector. Online banking has changed the face of banking and has achieved an important change in banking operations.<sup>6</sup>

National Electronic Funds Transfer (NEFT) is that the most ordinarily used electronic payment method for transferring money from any bank branch to a different bank in India. It operates in half-hourly batches, at the present, there are 23 settlements. Real-Time Gross Settlement (RTGS) is primarily used for high-value transactions which are supported 'real-time'. The minimum amount to be remitted through RTGS is Rupees Two Lakhs. there's no upper limit. Immediate Payment Service (IMPS) is a moment electronic funds transfer facility offered by National Payments Corporation of India (NPCI) which is out there 24 x 7. The usage of Prepaid payment instruments (PPIs) for the acquisition of products & services and funds transfers has increased considerably in recent years. Transactions through PPI Cards which include mobile prepaid instruments, gift cards, foreign travel cards, corporate cards & mobile wallets have jumped drastically from Rs.105 billion and Rs. 82 billion respectively in 2014-15 to Rs. 277 billion and Rs. 532 billion respectively in 2016-17. Artificial Intelligence has acted as a backbone in the E-Banking and has continuously been contributing to the banking industry for a very long time to provide a greater level of value to us, reducing the risks, providing better opportunities as the financial engines of our modern economy.<sup>7</sup>

AI is helping with the coming up innovations and transforming the way the needs of the clients are fulfilled and acts as a major role. Artificial Intelligence is also working on providing personalized support, better customer experience, time-efficient, reduced risks and cost-saving. Better performance, higher profitability, and risk reduction are the three main goals which banking and financial sectors are trying to achieve at the moment to keep up with the competition in the world. In this data-driven world, performance is dependent on those big data technologies which can store and manage data in real-time. Banks even have to mandatorily lend loans at a lower rate of interest to priority sectors like agriculture, housing, education. Data Analytics has played an important role in reducing cost, development and increasing client base for the banks. Digital banking lately is not just confined towards using the web to access the banking services, as is typically perceived, however, it likewise incorporates of a whole exhibit of banking services delivered or consumed using technology. Advantages of digitalization within the banking sector are:-

#### PAY, RECEIVE OR TRANSFER MONEY EASILY

Digitalization within the banking sector has offered the use of various sorts of services by sitting reception alongside no time restrictions. It has also reduced the gap between rural and concrete areas. With the digital payment modes or through E-Banking one can send money from one account to the other account of any bank branch from anywhere and anytime. Modes like USSD (Unstructured Supplementary Service Data), E-Wallets, UPI, Paytm other banking applications allow us to try to do so.<sup>8</sup>

#### WRITTEN RECORD

Digitalization has offered us to take care of our record, track our spending and budget planning. By using online applications, we get a record of each transaction we make. Applications automatically record the transactions within the passbook or simply have the records maintained inside the E-Wallet App. Thanks to digitization, more data are going to be available to banks. Banks can make use of digital analytics to form sound data-driven decisions. The threat of faux currency is going to be reduced as there'll be a rise in cashless transactions.<sup>9</sup>



#### IT IS EASY AND CONVENIENT

Digitalization has created a simple and convenient lifestyle for the purchasers and therefore the financial organization, as now the utilization of physical cash has become very less as compared to digitalized cash and there's no need carry along loads and a lot of cash from one place to another. The danger of human error has minimized which has led to a rise in consumer loyalty. Services like NEFT (National Electronic Fund Transfer), RTGS, etc. have also made it easy to transfer the amount from one bank to another very conveniently and quickly.

#### ONLINE BILL PAYMENT

One of the good advantages of online banking is online bill pay. instead of having to write down checks or fill out forms to pay bills, once you found out your accounts at your online bank, all it takes is just simple click — or maybe less, as you'll usually automate your bill payments. With online bill pay, it's easy to manage your accounts from one central source and to trace payments into and out of your account.<sup>10</sup>

#### DISCOUNTS FROM TAXES AND OTHER INCENTIVES

Many discounts were announced by the govt and therefore the financial institution to encourage digital payments. If one uses digital modes for a payment up to 2000 INR, one gets full exemption from service tax. Nowadays many mobile application operators also provide some incentives like cash back and other promotional offers which have also provided benefits to the consumers. One also gets 75 per cent discounts on fuels and 10 per cent discounts on insurance premiums of state insurers etc.<sup>11</sup>

#### Challenges Involved in Digitalizing Banking Activities

Digitalization has many obvious advantages such as accessibility to information, easy and immediate communication, low cost, reduced time and ability to share information, new jobs, and increased commercial competition. Even though there are plenty of advantages in going digital and enjoying the comfort of going digital but digitization in banking does not come without disadvantages. Below is a list of some of the challenges faced due to digitalization in the banking sector:

**Cybercrime:** Cybercrime is the use of digital instruments to further illegal ends, such as committing fraud, violating privacy, or stealing identities. This mode does not require the physical presence of the person, and one can execute such a crime from a faraway place, sitting comfortably in front of their computer/mobile screens. As the information and services have been digitalized the risk has been increased for both the bank and the consumer.<sup>12</sup>

#### ATTAINING APPLICATION PERFECTION

There is an immense feeling of consolation while using smartphones with various applications and features. The introduction by banks and financial institutions of application has progressively offered comfort and extravagance of observing costs at anywhere and time. It has made it easy for consumers to enjoy the services provided by the bank through mobile applications. But these associations have omitted that for several people these services are inaccessible as some can't afford mobile and a few don't skill to work these applications. Nonetheless, most of those applications are frequently ridden with bugs and also face various performance issues. it's hard to explore these apps, once in a while, and that they frequently crash.



### INEFFICIENT AT COMPLEX TRANSACTIONS

Worldwide, business-oriented banks like Chase have global transaction capabilities, like the power to send payments to quite 35 different currencies worldwide, that online banks won't be ready to master. Without a real-world presence, most online banks can't even offer the services of a notary, which require an in-person visit and necessary for many important financial transactions like buying a home.<sup>13</sup>

Decreasing Quality at the cost of Speed: In the surge of wanting to convey products and services at an accelerated speed, companies regularly tend to compromise on the standard of the application. The standard-issue is that there's nothing of the type as a touch bug; a bug may be a bug; it can harm the smartphones easily. There are a couple of cases of associations purposely choosing to disregard deserts in products and programming even before the thing hit the market.

### TECHNOLOGY UPGRADE

Technology isn't constant, it always keeps on evolving. As technology develops, more and more banking services are digitized to deal with the competitive market. Thus, it becomes difficult for consumers to stay up with these advancements and learn accordingly. As an example, an adult man after learning the banking application with difficulty started using it but some days later as technology advances, new features and updates are released by the bank on its applications then it again becomes difficult for that man to find out the updated app which mostly happens in the older population of the society and then they have to go back to the traditional ways of banking.

### AUTHENTICATION ISSUES

The main issues which are mainly faced by the banking authorities is the issue of authentication of their customers. The instructions which have virtually been provided by the Customer have originally been lodged or requested by him/her only or someone is personating on behalf of him is the main issue. Even after enacting various different measures like OTP, PIN, SMS/CALL verification relationship numbers, customer ID, etc. for securing the authentication of the consumers, the Bank and Cyber Frauds are increasing day by day and have emerged as a major challenge before the Cyber Cells and the concerned authorities.<sup>14</sup>

### SUPERHEATING WITH INNOVATION

Superheating the marketplace by offering imaginative services isn't simply wanted, yet also, it required remaining on top of things and attracting a good customer base. Particularly with a huge base of youthful users, it becomes imperative to acknowledge the institution within the consistently becoming and competitive marketplace. In any case, financial institutions are frequently reluctant to require the jump, as they know that things can reverse discharge and cause moment reactions from perturbed customers.

### LEGAL FRAMEWORK OF E-BANKING

E-Banking is no different business it is just banking utilizing Internet Channels. Banking is directed by RBI under RBI Act Subject to licensing Law regarding Electronic documents which are contained in the Information Technology Act 2000 as amended by the Information technology Act 2008. Various provisions of law, which are applicable to traditional banking activities, are also applicable to internet banking. However, this does not overcome various problems, and therefore there is an urgent need for introducing stricter rules and regulations specific to meet the problems of e-banking. The legal framework for banking in India is provided by a group of enactments, viz. The Banking Regulation Act, 1949; the Reserve Bank of India

Act, 1934 and Foreign Exchange Management Act, 1999 are few among many such legislations. It is mandatory on the part of all entities to obtain a license from Reserve Bank of India under Banking Regulations Act, 1949 to function as a bank. Besides, banking activities are also influenced by various enactments governing trade and commerce, such as The Indian Contract Act, 1872, the Negotiable Instruments Act, 1881, Indian Evidence Act, 1872, etc. Even after having a plethora of laws regulating e-banking yet there exists a grey area, which has neither been spelt out properly nor has there been any workable modes of implementation suggested by the Constitutional institutions. Business Analytics and AI (AI) has the potential to bring a serious change. Robotics, enabled by AI, is predicted to be the longer-term game-changer within the banks. Many private banks are getting to deploy Robots for customer service, investment advisory and credit-approval process to enhance the services and be cost-effective within the end of the day. Digital Banking is going to be the foremost preferred sort of banking within the coming years. Indeed, even as the COVID-19 pandemic claims a harsh cost for the economy, it's catalyzing digital transformation across business models, channels and touchpoints. Fundamental this move is that the requirement for more noteworthy hierarchical nimbleness likewise as closer binds with clients during a changing world request. The technique for computerized change, in any case, is unpredictable and tedious for organizations likewise as buyers. Banking and payments, basic mainstays of the economy, are among the center territories that have seen a genuine uptick in computerized contributions and selection. While going advanced isn't new, the pandemic has fundamentally quickened the reception of computerized innovations, with extensive ramifications for the more extended term of the financial area. The digitalization has grown in every sector. As all the things have pros and cons, the same goes for the digitalization in the field of banking. The cons of digitalization carry the danger of fraud. The Linking of bank accounts with other Information's have led a way for the criminals. The only way out is to have strict rules and regulations and the security system needs to be revised. The digitalization cannot be taken back to the old way but, the new way can be made safer with stringent rules and regulations.<sup>15</sup>

## II. DISCUSSION

Digitalization has turned the world upside down for almost all industries that form our everyday ecosystem. With a truckload of opportunities coming their way, enterprises now have tremendous room for growth. This essential merit comes from the easy and targeted customer reach. So, technology has certainly put forward a radical baby in terms of digitalization. While there is no doubt it has heavily impacted several sectors, we're here to look at digitalization in the banking sector.

Banking is one of the very first sectors that witnessed the storm of digitalization. Machine learning in banking helps in fraud detection, Transactions went online more efficiently than ever, and there was so much more. However, it was shocking to see that several popular banks are very new to the list of digitalization. Most of these names were trailing behind until last year. Nevertheless, digitalization has opened new doors for the banking sector as well as its customers. So, let us take a look and explore the significant benefits of digitalization for banking institutions.<sup>16</sup>

The moment the question is put forward, there is no challenge finding a couple of answers that just fit right. This makes it pretty clear that the banking sector has seen many goods come out of digitization. However, if we have to talk to the very details, here are five major ways digitization has been advantageous to banking.

### 1. Increased customers

If there's one thing we cannot deny, it is the increased customer base that digitization brings to a sector. The banking domain has been no exception to this simple rule. An increasing number of people are relying every day on online banking solutions. The contrast of slow and cumbersome traditional banking also works in favor of digital banking. However, digitization has increased the customer base in the banking sector.

While Fintech Benefits for the Banking sector, you can see a great change in everyday processes. Increasing the consumer base is one of the most noteworthy changes that digitalization in banking has brought around and arguably one of the best.<sup>17</sup>

2. Enhanced efficiency

A common question that makes its way to us is: Why is digitization necessary for banking? The advantage of efficiency answers the problem better than any other benefit. In a world that believes in speed and accuracy, digitization in banking has introduced both to entirely new levels. Banking processes are now conducted with a lot more ease and efficiency. As a simple process, digitization has changed the entire mathematics and art of banking by bringing in ease, efficiency, and extra productivity on the table.

Examples of digitization in banking are seen in essential processes such as electronic signatures, smartphone-based banking applications, quicker transactions, and so much more. So, you can say that digitalization has brought around enhanced efficiency in banking processes. This seems to be working well for banks as well as customers.<sup>18</sup>

3. A user-friendly experience

If we take a stroll towards the artistic side of digitalization regarding banking, we see that it has crafted a unique, user-friendly experience that never existed before. While banking earlier was symbolic of a slow and tiring queue that never ends, it now feels like a few simple clicks.

Banking now flaunts a user-friendly garb and has become a lot more desirable and efficient. This scenario was not the case until late and has been a massive convenience to many across the globe. There is no room to question the actual place of digitization in this scenario.<sup>19</sup>

This confirms that the impact of digitization on the banking sector has been trailblazing and undeniable. After considering public behavior, spending patterns and preferences, and other essential data, the banking sector now seems to have reached the vantage point after decades. If it wasn't for effective digitization, would we still be looking at the same world?

4. Data-driven decisions

Digitization has induced the “pragmatic” and “accurate” element in sectors it has touched. For example, if we talk about digitization and banking, most significant decisions are now data-driven. The great thing about data-driven decisions is that they are less likely to fire back as they have been carefully collected from a well-studied demographic.

Several technologies have emerged to help banks make better decisions based on what exactly their customer base requires. Such a grass root level change wouldn't have been easily possible without digitization. One other way digitization has fallen to rescue the banking sector is by helping them with the right decisions based on pure, unalloyed, effective data directly related to consumers.<sup>20</sup>

1. Cost

efficiency

Though it isn't an advantage that is always mentioned, it is one that we cannot think enough about. Digital processes have brought in a noticeable amount of cost efficiency, which has been a useful trait for the banking sector and the consumers. Digitalization has enabled easy and super-quick cashless transactions, consequently cutting down so much of intermediary fees. One now saves up on so many fronts through paperless payments.<sup>21</sup>

Neobanks are other exciting banks that have taken over the buzz by making room for digital cards and more. Thus, one cannot determine the role of digitization in banking. By merely touching the banking sector, digitization has brought around tremendous ease of operation. It has connected the world successfully like a global village, and this is where you cannot deny the importance of the banking sector and digitalization.

2. Data Protection: Returning Control to Individuals  
This is the best advantage of digital technology in banking. The process of ensuring consumers' data rights can be complex. It has been shown that brick-and-mortar banks can amass a huge amount of data through digital transformation, which can be used by them or other businesses for their purposes. Furthermore, customers will not be able to benefit from the economic benefits generated by their data.<sup>22</sup>

With increasing awareness of the overuse of personal data by customers, Chinese banks may lose the ability to expand their pool of data assets and retain their positive relationship with customers.

One solution that the industry has adopted to solve this problem is the creation of data accounts, a form of currency that allows customers to store their data as money. As a result, the banks have the option to use the data in these accounts at a market-determined price.

3. Artificial Intelligence (AI) Support

If used correctly, artificial intelligence has the potential to revolutionize the banking industry. It would improve its security capabilities while providing client service, personal assistance, personal reminders, and financial planning 24 hours a day, seven days a week. This would not only improve the customer experience but would also ensure long-term, meaningful consumer engagement.

One illustration is the usage of virtual assistants within online banking to speed up and simplify transactions. For example, customers can get account information via virtual banking assistant Erica in Bank of America's mobile banking app. Talking to Google, Siri, or Alexa in this way is similar.<sup>23</sup>

Erica can retrieve your account balances, find previous transactions, give you an overview of your weekly and monthly spending, keep an eye on recurring expenses, and notify you of any irregularities. The client only needs to issue a directive or pose a query, such as "Have I paid my credit card bill?"

4. Helps to Build a Better Relationship

Building solid relationships with your current customers is essential for the growth of your business in today's cutthroat marketplace. Social media platforms are used by businesses to interact with their customers, and the banking industry is no exception. The banks frequently use social media to notify customers about new programs they are offering.

The graph above illustrates how the banks use various social media sites, including Meta, Twitter, Instagram, YouTube, etc. Banks are now more frequently using social media platforms than in 2017. Meta and LinkedIn are banks' most popular social media sites for connecting with customers.<sup>24</sup>

5. Making Banking Transactions Quicker and Easier

In the digital transformation in banking, the method banking operations are carried out has altered due to digitization. For example, a potential borrower would have to send dozens of pages of paperwork for a loan application before the advent of digitization, and they would have to wait months for a response.

However, customers are no longer obliged to visit the bank to complete financial transactions in the digital age. They can use the bank's mobile and online banking services to move money from their accounts, pay their bills, and check their account balance. They can borrow money without ever entering a branch. Customers' financial transactions are now more straightforward and take less time.



## 6. Integrating Ecological Sustainability With Banking Digitalization

While digital technology can aid green development, the two projects are not necessarily complementary. For instance, digital hardware and services are the biggest energy consumer for banks.

In 2021, a study by Galaxy Digital found that the banking sector used 263.72 terawatt-hours of electricity annually, of which bank cloud services used 238.92 terawatt-hours.

According to estimates by China Construction Bank, the entire amount of electricity used by bank data centres around the world by 2025 will be equal to that used by the world's tenth-largest economy in 2021. Furthermore, the disposal of electronic waste is yet another significant difficulty because the lifespan of the electronic equipment employed by these centers is typically around five years.<sup>25</sup>

Banks should consider the detrimental environmental effects of digitalization in banking rather than concentrating solely on technology. The Chinese banking sector prioritizes coordinating green and digital development, as shown by the fact that green data services are now a crucial factor when Chinese banks choose their suppliers.

## 7. Independent Digitalization

The ability of banks to satisfy the financial demands of long-tail consumers, including the unbanked and under-banked, has been a critical result of digital transformation and has helped to address overall economic unfairness somewhat. However, the digitalization of society could also lead to new unfairness.

For instance, it is still difficult to guarantee that persons at the bottom of the financial sector can access banking services. As per the digital global overview report, Only 62.5% of the world's population still utilizes the internet. Future bank financial services will be inaccessible to over 3 billion people if they are only offered digitally. Moreover, to conduct banking, any user will require at least an electrical gadget and a network connection, increasing the banking cost.

Therefore, banking in this manner places various demands on having operational and technological knowledge and being financially savvy, an implicit bar that may deter many. Therefore, safeguards are required for banking to go digital to preserve the financial freedoms of underprivileged people.<sup>26</sup>

## 8. Use of Virtual Cards

Amid the current crisis, virtual cards are now a reality. These virtual cards, which can be used to make online purchases, are issued by the supplier.

By 2021, the industry anticipates that 20–25% of the volume of accounts payable will be made up of virtual card payments rather than automated clearing house (ACH) transfers and checks. Due to their benefits, these cards are now being used more and more frequently for B2B payments.

- Due to the widespread acceptance of virtual cards among suppliers and their simplicity and affordability, they make purchasing easier for businesses.
- This kind of card has a single-use card number and often expires after a month if not used. This helps to prevent online fraud, and because the card is virtual, it cannot be duplicated.
- With credit cards, it is impossible to offer customized incentives and offers to depend on a set of cards, but this is conceivable with virtual card programs.
- They offer improved cash flow management and internal control.<sup>27</sup>



### III.RESULTS

The ground digitization covered in the banking sector has already been enviable and plenty. We've seen many improvements crawl in over the last few years, and there is no questioning how digitalization can help for banking. This sector has gotten better in front of its consumers while letting them feel the difference at their fingertips. We cannot deny the ease we now associate with our day to day transactions. Hopefully, we will see a lot more on this front.

According to experts, enormous changes will be seen in terms of digitization in the banking sector. There are various concepts being brought into action everyday and significant startups have been funded earlier this year for the same. With absolute comfort already at our fingertips, it is only a matter of time before newer and more path-breaking ideas come to light.

Digitization has undoubtedly driven the banking sector to careful profit and attention. Digitalization also provides a secure way and Cybersecurity is also important in banking.<sup>28</sup>

The best part is that the enhanced overall experience has been a two-way street frequented by the banking sector and the people alike. Several other technologies are lined up to make it big in the banking sector, and the digital revolution is all set to help them grow. There's no predicting the exact limits digitization can reach in the banking sector. However, if you have an idea that needs to reach people, it is time to find the right catalyst to see you through.

In the banking industry, technologies are tearing down barriers to entry and opening doors for new financial service providers.

In a recent survey of global banking executives by the IBM Institute of Business Value (IBV), almost 60 percent of respondents said that the boundaries between industries are blurring and more than 60 percent see competition coming from new and unexpected places. Competition from startups, internet giants, and industries outside of banking, along with increased regulations, are forcing banks to accelerate their Digital Reinvention.<sup>21</sup>

Many bankers recognize this inevitability. But what does building a truly digital bank entail?

IBM Digital Reinvention® is a framework that encapsulates the dramatic changes required, involving fundamental re-conception of strategy, operations, and technology from the ground up.

Rethinking customer experiences and developing efficient, effective operating models that facilitate an open ecosystem of participants are enabled by the underlying processes, technologies, and organizational structures. In turn, customers benefit from fair prices, increased transparency, immediacy, and high-quality relevant interactions. They also gain access to a spectrum of personalized products and services both from the bank and the new ecosystem. These products can include financial advice, non-financial products and comparison services. Reinvention also enables a new underlying operating model of lean organizational structures that supports fast processing and facilitates open partner ecosystems. To incorporate streamlined decision and governance processes, the digital bank's integrated IT organization can adopt agile development and cloud deployment.

Banks need to understand what Digital Reinvention means for them based on their specific strategy and readiness to compete in the digital arena. Their efforts will need to be strategic to reach desired business goals with available capital and within an acceptable time frame.<sup>25</sup>

### IV.CONCLUSIONS

The Indian banking industry has become an example of the pace at which it is growing over the past decade or so. The requirement to introduce computers was felt in the Indian banking sector in the 1980s, in order to provide better services to the customers and improve bookkeeping. A committee was then set up by the Reserve Bank of India. Banks started using Information Technology by using Personal Computers which was new at that time. Later on, banks switched to Local Area



Network (LAN) wherein a group of computers shares a common communication line. Later on, banks adopted the Core Banking platform which supports banks' day-to-day transactions like opening new accounts, making and servicing loans, processing cash deposits and withdrawals, etc. Thus, branch banking changed to bank banking. All these features helped banks to increase the comfort feature our customers and gave us a better customer experience through the feature of Anywhere and Anytime Banking.<sup>20</sup>

This feature allowed customers like us to do banking transactions 24\*7 and through all the branches of that bank in India. The economy opened up in the latter half of the nineties. Private and foreign banks started competing with the public sector banks in India. Computerization increased during this era as banks started using more and more computers to compete with one another and stay in the race. Many commercial banks started giving digital customer services to stay competitive in the race. Banks, as well as customers like us, have benefitted a lot by using the newer technologies adopted by banks which made the entire experience user-friendly. E-banking has resulted in reducing costs for the banks and at the same time, it increases their user base which ultimately helped them generate more revenue through various channels. Digitization has decreased human error. It is now possible to access and analyse the data anytime. The Central Bank has overseen all these new developments taking place in banks. Commercial Banks in our country have moved towards a technology by way of Bank Mechanisation and Automation with the introduction of MICR, Electronic Funds Transfer. MICR-based cheque processing helps banks use the technique to verify the validity and enhance the security of signed checks. Electronic Fund transfers help customers like us in transferring money from one account to another without the need to visit a bank branch. Inter-connectivity among bank branches through the use of common software has helped in faster decision-making and access to data. Implementation of the ATM Channel has facilitated us to do transactions anywhere in the country without visiting the branch. Strong initiatives have been taken by the Central Bank of our country in strengthening the payment and settlement system in banks. The Indian government is increasingly supporting digital transactions. United Payments Interface (UPI) and Bharat Interface for Money (BHIM) launched by the government was an important milestone not just for the banking system but for the entire country. Innovation and popularity of digital payments are resulting in greater digital banking transactions. UPI is a payment method that allows the transfer of money anytime without the need to enter bank details every time we transact. UPI and BHIM are economical ways of money transfer, making us free of cash. As we are moving towards a cashless economy, we see a rising number of ATMs in our country. Implementation of electronic payment systems such as NEFT, ECS, RTGS, Mobile banking, Debit cards, and Credit Cards have become very common with every Indian bank.

Indian banks are coming up with innovative variants of these products and show the newest features added to these products to attract more customers. All this has not just benefitted the banks by generating more revenue but has also made our lives better by making banking very easy for us.<sup>24</sup>

## Challenges in the Banking Industry

### 1. Responsibility of User

Bank digital transactions can go wrong due to many reasons, some of which might not be the fault of customers like us. The hacking of debit cards and bank accounts takes place very frequently. With the increased use of digital payments, we need to be protected from unauthorized banking transactions. Today, the responsibility is on us and not the banks when banks are really in control of the payment system and are charging us for digital transactions.

### 2. Poor Laws

The laws on digital payments are vague. There is an urgent need to legally back digital payments in our country, not only to ensure the safety of customers' money but also for the safety of these companies themselves. Increasing the Customer Base. Increasing internet penetration is the only possible solution to reduce the digital divide and increase digital transactions in our country.

The increase of digital transactions in rural India would help boost not just the banking system but the entire economy. Awareness among people needs to be increased. Awareness and Education Customers who stay in rural India need to be made aware of the advantages of digital banking. There is still a belief in most parts of our country that online banking is not a safe mode of banking. If people are educated about digital banking then their reliance on conventional banking will gradually come down. Since methods of banking have become more digitalized, banks are focusing on creating a more efficient service for us, producing more methods of advancement in a more user-friendly front-end service.<sup>22</sup>

Artificial Intelligence is continuously contributing to the banking industry to deliver a greater level of value to us, decrease risks, and give better opportunities as the financial engines of our modern economy. It is helping in coming up with innovations and transforming the way clients are serviced. Artificial Intelligence is working on giving personalized support, better customer experience, and cost-saving. Better performance, higher profitability, and reduction in risk are the main goals that the banking and financial sectors are trying to achieve. In this data-driven world, performance is dependent on those big data technologies which can store and manage data in real-time. Banks also have to mandatorily lend loans at a lower interest rate to priority sectors like agriculture, housing, and education. Data Analytics has played an essential role in reducing cost, product development, and increasing the client base for the banks. Indian Banks are slowly and steadily moving toward the digital revolution. In order to compete with other commercial banks, they are introducing innovative features in their offering and are trying to make the overall customer experience much more simple and flexible.<sup>28</sup>

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