



**“Challenges and Opportunities of Digitization in Banking Sector In 21<sup>st</sup> Century”**

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**ABSTRACT**

Modern banking in India originated in the last decade of the 18th century. Among the first banks were the Bank of Hindustan, which was established in 1770 and liquidated in 1829–32; and the General Bank of India, established in 1786 but failed in 1791. The paper methodically confers the banking sector in India. The research broadly covers the technological advancement banks, challenges and opportunities of technology are conversed in detail with reference to banking customers and employees. To manage up with the challenges customers and employees have various opportunities. Lastly, paper discussed future of banking sector in India which includes digital disruption, mass customization in banking and Fin Techs as game changer. The paper gives an overall brief of Challenges and Opportunities of Digitization in Banking Sector In 21st Century.

**Key words:** *banking, digitization, challenges and opportunities*

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## **1.1. INTRODUCTION**

The bank is an institution which deals with money and credit in particular. Sir John Paget says that, "no person or body corporate otherwise can be a banker who does not, (i) take deposit accounts, (ii) take current accounts, (iii) issue and pay cheques, and (iv) collect cheques, for his customers". The Banking Regulation Act was introduced in India in 1949. The banking is one of the leading and significant sectors all over the world. It contributes in reaching the financial services to the target beneficiaries as per the guidelines set by the apex bodies like Financial Service Authorities in United States of America, Reserve Bank of India and others from respective countries. The banks have a key role in planning and execution of social equity through the application of social equilibrium. Along with the financial products such as loans, the banks also assist the local/state/central governments in transferring the direct benefits to the farmers; micro, small and medium enterprises (MSMEs) and others through schemes declared from time to time.

## **1.2. MATERIAL AND METHODS**

This study is based on the secondary sources of data. To get the detailed understanding of the objectives of the study is to analyse the challenges and opportunities of digitization in banking sector in 21st century. To study and analyse the objectives of the study various references has been referred to such as journals, articles, books, thesis, annual reports of RBI, websites, banking books and research papers. The research is a descriptive research that covers the developments in banking sector with advancement of technology in present era.

## **1.3. DISCUSSION**

### **1.3.1. The Banking Sector in India**

The Indian Banking has shifted its paradigm from manual banking operations to fully digital banking management. There are various factors responsible for the present transformation of Indian banking in 2020. First of all, the Government of India under the able leadership of PM Narendra Modi initiated various campaigns like "Digital India." It paved the ways to shift the operations to the online platforms in the form of internet banking, mobile banking and so on. The leading banks have appointed "Bank Mitras" to meet the increasing demand of manpower particularly in rural areas. The server-based data integration has brought the major reforms in Indian banking operations. It has empowered the banking professionals to overcome the challenges of customers such as knowing the bank balance, short messaging

systems (SMS), fund transfers, scheduled monthly payments and bills, periodical instalments and auto-generated premium of each months. The android-based technology available on smartphones has witnessed the revolutionary changes in the banking operations and perceptions of bank customers too (Govt. of India, Economic Survey, 2019-20a). Earlier, due to lack of infrastructure, absence of optical fibre network and red-tapism restricted the scope of rural banking. However, the international technical advancements also leveraged the scale of banking technology in India.

### **1.3.2. Technological Advancement Banks**

According to Raj & Rao (2018), technology is the most influential factor transforming the product development life cycle, processes, productivity and profitability of businesses. It can define the scope of operational excellence to the great extent. In the present competitive environment, the firms have focused on saving the costs and increasing profit margins on priority. Amazon, Snapdeal, Facebook, WhatsApp have acquired the major shares of global as well as local markets due to continuous technical advancements. Paytm, PhonePe, Google Pay have created their own presence and brands in India. Both the rural and urban markets are covered with the help of providing services in respective regional languages like Marathi, Guajarati, Kannad, Tamil, Telugu etc. It has led to customize the services to the target customers.

#### **1.3.2.1. Mobile Banking**

The world has witnessed the mobile revolution influencing the personal, professional and public life of individuals. The Indian banking industry is around 200 years old providing finance to people, industries, institutions, insurers and other stakeholders of Indian economy. However, the poor infrastructure and broadband connectivity had created obstacles for rural banking. This challenge is minimized to the great extent through availability of banking services made available through smartphone, android and iOS technology (American Banker, 2020). The beauty lies in the wireless connectivity reaching anywhere anytime. The Reliance Jio, 4G Network and affordable data have encouraged the bank customers, management, employees and industries to access the services at ease, less time and more accurate than ever. The long-waiting queues are reduced as well. The safety and security are ensured through One Time Password (OTP) and messaging alerts maintaining records automatically leading to transparency.

The most of the banks in India have adopted basic version of technology models like mobile applications, online verification, Know Your Customers, sending reminders and taking

follow-ups etc. The customers are given access to update their personal details, fund transfers, sending requests for cheque-books etc. The State Bank of India has launched YONO LITE SBI as mobile banking application for retail users particularly. The largest bank in India (SBI) has made it available through Google Play Store, Windows, and iOS app too. All utility bills, m-Passbook, recharges, term deposits, fund transfers, e-lockers, TDS enquiries and debit-card related services are provided through mobile banking called YONO LITE SBI platform (Online SBI.com). In addition, mCASH also ensures banking services anywhere anytime. QR Code based payments and Smart banking are the salient features of SBI mobile banking. State Bank Buddy is an online wallet available in more than 10 languages wherein non-SBI bank account holders can transfer money through Facebook and other platforms and book tickets for multi-purposes.

The private banking players are racing ahead in the digital banking with the help of mobile and internet. ICICI, HDFC, Axis, City Bank and others doing their best in this regard. The ICICI bank has already activated mobile banking services through “Pockets” attracting the youth customers. At the same time, Ping Pay is works somewhat similar by Axis Bank. It is considered to be the unique and multi-social payment solution especially for the smartphone users and youths. The person to person and non-Axis bank account holders can access it with transaction limit up to Rs. 50,000/- each day. Similarly, City Bank India and Master Card together have come up with the ‘global digital wallet’ as “City Master Pass” exclusively for secure online shopping. Interestingly, more than 2,50,000 e-merchants are associated with City Bank through this. “Chillr” is the mobile payment and transfer app by a leading private bank HDFC. The salient feature is customers can make or transfer funds without adding beneficiaries (Babu&Babu, 2018b).

### **1.3.2.2. Social Media for Banking**

The social media is the most popular and widely used by all age groups due to its competitive advantages. Due to multi-media facilities and easy access through smartphones, social networking sites and other online portals, it becomes easy to reach people in less time and cost both. No wonder, the business firms are attracted towards social media. Facebook, WhatsApp, Twitter, Instagram and others have made the world crazy loaded with a lot of information. The firms can encash the opportunities to raise the awareness, share event updates, plan and schedule hiring, attract potential customers (Demiguckunt, Klapper, Singer &Oudheusden, 2014). The banks are also not an exception to the fact. By using social media, the banks are simply a click away from the customers. It has overcome the regional,

technical, linguistic and other barriers. According to McKinsey and Company reports, the key reason customer switches the bank is ‘emotions.’ The personal touch and customized services as per needs are expected by the customers and other stakeholders. There are several banks who have adopted strategy of Social Media Influencers. The celebrities, Bollywood stars, regional actors, industry experts, sportspersons etc. are targeted for branding, advertising, sales promotion purposes and at the time of launching new products in the market. Three reasons compel the banks to use the social media in the present age: Content Promotion, Customer Engagement and Market Research / Competition Management. First of all, it is imperative to reach people no matter how and when. The virtual presence matter to spread the word, name and fame. Hence, banks have been creating several pages on Facebook and other platforms. Secondly, looking at profits won’t sustain the business in the long-term. Rather, the existing customers should be kept engaged by serving the best. Thirdly, it is equally important to understand the competition, market share and market trends in order to keep ready for future. All of these can be done through social media.

Technology is considered to be a double-edge sword. It has pros as well as cons. Since banking sector is integrated with the financial services, it becomes a matter of concerns for customers, management, government, merchants, traders, and businessmen too. The various emerging trends are bound to happen due to global market dynamics influencing the domestic banking including rural areas. The banks have focused their attention the optimization of resources and automation in particular. Some of the key trends are worth to mention in the present context. First of all, data is the asset for business. It is more valuable than anything else. Hence, database management, integration, calibration, data analysis and cloud computing are more practiced in Indian banking due to large customer base (PwC, 2013). Secondly, innovative and creative methods are experimented in the form of artificial intelligence and machine learning. The banking technology has developed various sub-disciplines such as Blockchain, Crypto currency etc. Some of the banks have shown interest in robotics process automation (RPA) to process the core banking transactions too.

The concept of ‘digital finance’ has gained momentum as the Indian government has recognized the potential of digitalization for a developing economy. It has created scope for socio-economic development, financial inclusion and social equity by all means. The rural-urban gap can be minimized to the great extent. The concern became more severe during Demonetization Policy in India. The Indian economy is transforming towards less cash and finally aiming to reach the stage of cashless economy in a true sense. Many of the leading

banking players have been trying their best to tie-up with the FinTech Start-Ups in India. There are certain reasons. They can avail the best and high-end technology to beat the competition. At the same time, the threats such as cyber-attacks and fraudulent activities can be monitored and controlled with the help of these technocrats. The public sector banks have reported the loss of around 117,000 Crores Rupees of fraud in 2017-18. The Cosmos Bank, Punjab National Bank and Maharashtra Bank have also become the victims of frauds in the last few years (IndiaInfoline.com).

### **1.3.3. Challenges and Opportunities of Technology**

#### **1.3.3.1. Challenges for Bank Customers**

Every side has two coins. It is also applicable to the Indian banking system. One side technology has transformed the lives of individuals and businessmen bringing automation, comfort and ease in personal, professional and public life. It saves the time, money and other resources to the great extent. On the other hand, it has created certain challenges for all the stakeholders of the banks. The customer is the king of today's market who would continue to rule the market world in future too. Moreover, the role of customers would matter more in the long-term since he / she would have multiple options and ways to deal with the requirements.

- **Bank Accounts are Not Safe**

The technology has created several threats to the financial, psychological and social life of bank customers (Deloitte, 2014). This is because the technology compiles the data of customers in order to provide better and customized banking solutions. Since they are related to the financial aspects, the chances of data leakages are high. There are many cyber-attacks happened especially from some of the African, Nigerian technical experts. The links are provided and missed calls; voice messages are sent. Lakhs of rupees are transferred instantly within few seconds. Hence, it has become the pain for banks as well as customers. Sometimes, calls are received for gifts, rewards, double-incomes etc. coined with emotional appeals disguised as bank representatives. In short, the theft of personal and financial data has become as a severe concern for the bank customers. As per Reserve Bank of India guidelines, the banks can assure amount up to Rs. 1 Lakh for which insurance is covered in case of any loss.

- **Faulty Payment Systems**

There are not only end-users who opt for banking services. As aforementioned, the merchants, traders and enterprises also have their accounts to credit monthly salaries, pay

taxes to governments etc. Due to rise in technology demand, many small FinTech firms have taken birth especially in last five years. Digital India campaign boosted the confidence of both Indian public and budding entrepreneurs. They have been working as the intermediaries between large corporations and end-users or consumers. For example, Mobikwik, Freecharge, Phone Pay, Google Pay can be mentioned in this regard. They are proactively involved as instant payment platforms simply linked with the mobile numbers. However, due to technical errors, poor network and other issues, the amount is deducted from the accounts. At the same time, it does not reflect to the next party. In such cases, the trust factor is lost by the customers. After taking follow-ups, writing complaints, the concerned authorities give various justifications but don't provide solutions (Harun-Ur-Rashid, 2011).

### **1.3.3.2. Challenges for Bank Employees**

- **Cut-Throat Competition by Fin Techs**

According to Goldman Sachs Report, the FinTech Start-Ups have been increasing grabbing the market share from the traditional banks to the great extent. It is estimated that the Fin Techs would generate nearly \$4.7 Billion revenue providing the better banking solutions than traditional financial service firms including banks. The bank employees have to upgrade their skills, knowledge and other competencies with new generation employees serving in the FinTech Start-Ups who are highly competitive, productive and techno-savvy (IBEF, 2020). Their operating processes, services are hassle-free and automated with fewer workforces. For example, they encourage their employees to 'work from home' with laptops and other portals. It saves a lot of time, cost etc.

- **Regulatory Compliance:**

The apex body Reserve Bank of India and Central Government keeps on bringing reforms matching to the contemporary market requirements in order to make it more effective, result-oriented etc. (Srikrishnan,2017). Naturally, many reforms are made and other banks have to follow them from time to time. In the present condition of COVID-19 pandemic outbreak, the Reserve Bank of India announced Moratorium Policy extending the loan repayments for the period of six months. It becomes challenging for the bank employees to comply with the regulatory reforms initiated. Likewise, demonetization policy was another situation. All of these increases stress leading to collapse work-life balance.

- **Lack of Digital Infrastructure:**

The difference between India and Bharat is visible even today. There are many small towns, villages, blocks wherein access to the banking services is not provided. The computers, servers, systems, applications are not upgraded, secure enough to meet the increasing demand of customers. The long waiting queues are still seen in the banks. Many times, due to server issues transactions are not processed. The ATMs are empty for weeks or out of service. The customer profiles are not updated. The rural customers are semi-literate or illiterate. Hence, can't understand the employee expectations. The situation of rural banking system is pathetic. The blame game between employee and government doesn't end. The customers have to suffer to withdraw their own money. Simultaneously, the bank employees have limited technical skills and system to compete with other players (Wingard, 2020b). Full-speed internet connection, anti-virus protection, smart systems and intensive training are a must for bank employee to perform in the best possible manner.

### **1.3.3.3. Opportunities for Bank Customers**

- **Two-Step Verification**

Many of banks (both private as well as public) have come up with two step verification process to ensure the authentication. The customers can create these stages with the help of question and answers which are highly customized. This would again not guarantee the safety and security of bank accounts. However, it would restrict the threat to some extent. In addition, One Time Password is shared by banks on the registered mobile number and email for every transaction. Once transaction is over, the messages are sent. This has developed some trust amongst bank customers doing more transactions (HDFCBank.com).

- **Scheduled Payments & Record Keeping**

The bank customers have liabilities in terms of making various payments on regular basis. The home loan, personal loan, car loan, insurance premium, child education, and other monthly recharges are few of them. The customers can make scheduled payments to the lenders on time. The transactions are automatically recorded in the bank statements. They are useful while filling income tax returns or claiming TDS etc. It would be helpful in future to assess the credit history and serve as legal evidences too (Turner, Shroeck & Shockley, 2013).



#### **1.3.3.4. Opportunities from Bank Employees**

- **Less Manual Work**

Earlier, the bank employees used to maintain a lot of registers, ledgers, books of accounting etc. Interestingly, some of them were repetitive entries consuming time, energy and money. In addition, the turnaround time for processing and approval of a bank transaction was quite high. All of such operating methods are automated. The bank staff needs not to maintain several registers and books of entries. The centralized database is maintained with the help of servers. Hence, it is useful for employees working at different branches. The manual work is reduced to the great extent. Due to access of net banking, the smart generation has already started using banking mobile apps for money transfer, EMI, monthly statements etc. It has resulted in minimizing the manual work at banks (Oracle & EFMA, 2016).

- **Career Growth**

In the present age, only the best would survive in the race of competition. One should be life-long learner no matter in which profession you are. Varma (1998) has examined that the banking employees need to upgrade and go through the stage of learning, unlearning and relearning to pace up with the market changes. Due to high-end technology, they would enjoy with as a smart banker to serve the customers in less time. In addition, being techno-savvy would make his/her banking career bright ensuring growth prospect. It would create win-win situation for bank and employees as well. They can claim promotions or look for better opportunities in the market. It would serve as a career advancement strategy for bank employees.

#### **1.3.4. Future of Banking Sector in India**

- **Digital Disruption**

KPMG (2019) has published an exclusive report entitled “The Future of Digital Banking.” It helps to understand how the banks would evolve by the year 2030. There would be radical changes happening in the Indian banking due to technical advancements. It would be more efficient as well as innovative offering “autonomous experiences” to the consumers. The banks would serve as personal data bank to its customers. The robotic automation and data-driven experiences would remain significant factors. At the same time, privacy of data would define the scope. The context and sensitivity would matter while modifying the business models of banks.

- **Mass Customization in Banking**

Though technology would change, the centre of digital transformation would be the customer. After all, all business houses and institutional reforms are targeted towards the ease of doing business and customized services to the customers. Hence, the concept of ‘mass customization’ would gain momentum and strategies would be developed around it. The banks can influence the buying behaviour of its customers through technology in the following manner:

- **Fin Techs as Game Changer**

It would be interesting to see whether the FinTech firms would serve as the competitors to the banks or integrate their products and services with the banks themselves. However, it is certain that these and newly emerging FinTech companies would be considered as ‘game changer’ due to rising demand for technology and their well-equipped, talented workforce. Now-a-days, they receive enough funding from angel investors to tap new market opportunities. They would contribute at three levels: cash management, trade services and trust and security (Deloitte, 2014). The following figure explains in details the role of Fin Techs in India in next ten years.

#### **1.4. CONCLUSIONS**

The paper systematically discusses the banking sector in India. The research broadly covers the technological advancement banks which includes mobile banking and social media for banking. Further challenges and opportunities of technology are conversed in detail with reference to banking customers and employees. The challenges for bank customers include safety of bank accounts and faulty payment systems. The challenges for bank employees include cut-throat competition by Fin Tech’s, regulatory compliance and lack of digital infrastructure. To cope up with the challenges customers and employees have various opportunities. The main opportunities for bank customers include two-step verification during payments along with scheduling of payments & record keeping. For opportunities for bank employees include less manual work and prospect for career growth. Lastly, paper discussed future of banking sector in India which includes digital disruption, mass customization in banking and Fin Techs as game changer. There are various challenges for the customers and employees of the sector but on the flip side the opportunities give a positive hope for advancement of sector.

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