

“A STUDY ON IMPACT OF TECHNOLOGICAL UP GRADATION AND INNOVATION IN INDIAN BANKING SECTOR WITH SPECIAL REFERENCE TO SBI”

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Received: 02 Feb 2019

Accepted: 06 Feb 2019

Published: 12 Feb 2019

ABSTRACT

The banking sector is the backbone of any economy since it acts as the convertor of savings into investment. Irrespective of other sources, the banking sector has a leading role in the capital formation and thereby the acceleration of growth and development. How effectively the banks bag the savings from the people and convert it as capital leads the growth rate of the nation into a larger extent. Technological up gradation and innovations play a vital role in the efficiency and effectiveness of the banking sector. The transformation from the ledger system to the computerization have increases the pace and efficiency of the banking sector. Since the government is focusing more on digital India and No cash economy Banks have still miles to go. The inclusion of banking services to each and everyone, reduction of the cost of banking and Easy banking ie less time consuming for bankers as well as customers and banking services anywhere at any time are the aims of modern banking. But a developing country like India, having infrastructural deficiencies and poor literacy rate, technological changes, and innovations in the banking sector is a herculean task. This paper is about the technological up gradation and innovation in banking sector taken place in the last five few years. These initiatives are to capture the valuable pie of the new gen.

KEYWORDS: *Fin-Tech Companies, Innovative Banking, Recent Technological Innovations*

INTRODUCTION

Capital formation is the stepping stone and it fosters the development of any nation. India being a developing nation the pace of its development is decided by the availability of capital and proper investment of the same. Irrespective of other sources, the banking sector has a leading role in the capital formation and thereby the acceleration of growth and development. How effectively the banks bag the savings from the people and convert it as capital leads the growth rate of the nation into a larger extent. The banking system in India has done a crucial role in the growth and development of the economy. The Indian banking system has been stable even after seeing change and surviving without any major crisis. During the last few decades, India's banking system has bagged several outstanding achievements to its credit. Extensive coverage of the entire nation under the banking network is the greatest among them. It is no longer confined to metropolitans or cosmopolitans centers, but also reached even in all the nuke and corner of the nation. This wide coverage and inclusion of all the sect and sector of the country is the key to the success of the Indian banking sector.

Technological up gradation and innovations play a vital role in the efficiency and effectiveness of the banking sector. The transformation from the ledger system to the computerization have increases the pace and efficiency of the banking sector. Since the government is focusing more on 'Digital India' and 'Cashless economy' Banks have still miles to go. The Inclusion of banking services to each and everyone, reduction of the cost of banking and Easy banking ie less time consuming for bankers as well as customers and banking services anywhere at any time are the aims of modern banking. But a developing country like India, having infrastructural deficiencies and poor literacy rate, technological changes, and innovations in the banking sector is a herculean task. Banks have been working towards a Digital India, adopting the latest technologies and introducing a number of products and applications to improve customer convenience.

Less time consumption and more convenience and availability of banking services at any time ie 24X7 banking and banking anywhere is the need for high tech generation. All the banks are aiming technological advancement to this extend keeping security and safety main concern. The shift from going to banks for each and every banking activity to virtual banking anywhere any time is, though convenient, convincing and catchy attracted numerous security issues such as high tech ATM robbery, juice jacking, hacking, cyber-attacks relating internet banking, mobile banking, phishing,

State Bank of India (SBI) being India's largest bank and one of the top 10 among the largest banks in the world with balance sheet size Rs 33 trillion around 25,000 branches. Its presence is seen in around 50 countries. The bank which is founded in 1806 as Imperial Bank of India now owns 25% market share of banking activities in India. Being one of the most reputed banks in the world and largest in the nation it has a crucial role in technological advancement and innovations in banking activities. This paper is an attempt to coin out and analyze the latest technological up gradation and innovations from SBI.

REVIEW OF LITERATURE

(Aruna R. Shet, 2015) To tackle the challenges of needs and perception of the customers most of the banks took technological initiatives to withhold in the cutthroat competition. Indian banks have become globally competitive in terms of technology as well as services. Technical efficiency and advancement in Indian banking is a result of technological up gradation of foreign banks. The aforesaid phenomena grabbed the pace after the liberalization. Developing the most efficient technologies at the lower cost and attracting people more by it to the bank is the key to the success of the banks. A better understanding of the customer needs and better solution is the base. (Dr. T Sreelatha and C H Chandra Sekhar) Technology has caused a paradigm shift in the banking sector and the delivery of banking services. Information technology and related innovations costly and complex on the outset, but they are 'energy guzzlers'. Since cost reduction and attracting new and potential customers is the need of the hour, innovation, as well as technological up gradation, is the only strategy for the banks to survive.

STATEMENT OF PROBLEM

The Banking system is changing rapidly due to technological up gradation of mankind. The last two decade witnessed tremendous changes in banking technology. The customer demand for up gradation, customer technological up gradation, and people being more techno-savvy are the pillars of this change along with cost reduction, customer retention and attraction from the bankers view. This present study analyses very recent innovations and technological changes in the banking field giving special reference to SBI.

OBJECTIVES

1. To study how innovations have contributed to the development of Indian banking. 2. To examine the impact of recent banking sector innovations on the Indian economy

METHODOLOGY

The study is basically based on secondary data. The subsidiary data is collected from magazines, Journals, Books and various websites like RBI website, SBI website and so on. The analytical part of the study is based on collected data and percentage method.

ANALYSIS

Over the years the banking sector in India has undergone tremendous changes. Entry of technology in the Indian banking sector can be traced back to the Raganarajan Committee report, way back in the mid of the 1970s. In 1979, the RBI has put forward the Talwar Committee on Consumer Services in Banks and it suggested that computerization of some functions is required to speed up customer service in Indian banks. While the automation process has not kicked off till 1993, it was due to strong opposition against bank automation process. Opponents argued that automation may increase unemployment sine technology reduces human labor. However, in 1993, the Unions of Bank employees agreed an agreement with Bank Managements under the assurance of Indian Banks Association (IBA) that they back up the employees. This agreement paved way for the introduction of computerization and the development of communication networks in Banks.

EARLIER TECHNOLOGICAL CHANGES IN INDIAN BANKINGSYSTEM

Core banking was the initial step in the banking sector in India. Once computerization has introduced in Indian banks also adapted the same. Under Core banking system all the branches under a bank are computerized and interconnected them using a network. This helped the customers to do banking transitions from any of the branches of the same bank irrespective of the home branch. So the customer is the no more the customer of the branch but the bank.

Core banking is been followed by a card system. A debit card was the first into it. In this system, a plastic card is used to the withdrawal of money from Automated Teller Machines. This initiative was basically for cost reduction of the

withdrawals as well as to reduce the customers' inconvenience of visiting the bank for each and every withdrawal. Now a customer can withdraw cash 24X7 from any of the ATM irrespective of the bank.

A credit card was another addition to banking innovation. A credit card is nothing but a debit card for the overdraft account. In this initiatives customer can avail easy loan from the banks up to a certain limit. More up gradation was added to the plastic card system and ATMs. Now the cards can be used for e payments, fund transfer using many applications and in POS machines. Automated Teller Machines (ATM) are now upgraded into small bank branch itself. Cash deposit, cash withdrawals, ATM pin generation and pin change, balance enquiry, mobile banking activation, transfer of fund and many more banking activities are possible.

Another up gradation to the plastic card is instead of magnetic strips which are used to keep the account details is now been replaced by the chips. Gift card and travel card are other two important additions to the plastic cards. Even debit card is upgraded on the base of the volume of day to day transaction and geographical are of the usage of the card. Gold cards, platinum cards, international cards etc are some of them. This bifurcation provides different withdrawal limits on a daily base and uses the same card in different countries facility.

Electronic Clearing System (ECS) is introduced in the late 1990s. It was another stepping innovation for the inter-bank transactions. ECS facilitates paperless credit debit transactions directly linked to the customer accounts. This facility is an RBI initiative.

Electronic fund transfer in the early 2000s is another see change in the banking sector. Real Time Gross Settlement (RTGS) and National Electronic Fund Transfer (NEFT) added the pace of the inter-bank transactions. Under this innovation, the fund can be transferred easily and consuming less time. Earlier the financial instruments like Cheques and demand drafts were used and were time-consuming and costly. Encashing cheques and demand drafts of different banks for the bank customer usually takes days together. But RTGS is real-time based so the fund to another banks can be transferred in no time. NEFT facility is also used for interbank fund transfer, but basically, this facility is used for less amount transfer and most of the cases amount less than Rs 2,00,000/-.

RECENT INNOVATIONS AND UP GRADATION IN INDIAN BANKING SECTOR

Cheque Truncation System (CTS): This is the latest technological addition to the Indian banking system. This system is designed for speedy and timely clearness of negotiable instruments especially Cheques and Demand Draft. Earlier system was sending these instruments to the clearing centers and using Electronic Cheque Clearing System (ECCS) interbank settlement is done. This always takes days together. CTS are introduced to tackle this delay. Under this system, these financial instruments are scanned and the scanned images are sent to the clearing centers and clearance is done within a day.

Internet banking: Your bank at the tip of your finger is the base of internet banking concept. This service provided by bank facilitates its customer, who is having this facility, with banking services such as balance enquiry, fund transfer, RTGS and NEFT facilities, an opening of fixed deposits, bill payments and tax payment and so on. Many up gradations are done in the internet banking facility. This facility ensures uninterrupted banking ie 24X7 banking without the time and places barrier. SBI online is an online banking portal SBI. It provides banking assistance such as spend analyzer, State Bank Rewardz, CIBIL

score estimator, ATM card request and duplication, PPF account opening, Stop Cheque and new cheque book request, and many more

Point of Sale machines (POS): POS is an electronic device used for money transaction using ATM card. Basically, it is a computer terminal connected to a customer account and magnetically encodes creditor's debit cards and makes the transaction from cardholders to POS connected accounts. POS machines are used basically for cashless transactions in different business ventures. SBI also promote POS intensively with the slogan to make card payments safe and hassle-free.

Telephone banking and SMS banking: These are the facilities to provide limited banking services to the account holders of the bank. In this setup customer can dial to a particular phone no any time to know the account balance, requesting new cheque books, ATM card blocking, Duplication and renewal. SMS facility also provides the above-mentioned services using SMS service. The most recent up gradation in this SMS banking is generating ATM pin (personal identification number) for new ATM cards and regeneration of the same. For most of the online transaction, one-time password (OTP) also comes as SMS to ensure a secure transaction.

LATEST TECHNOLOGY LANDSCAPE

Green banking, Digital India and less-cash economy are the keen focus of the Indian Government. By 2020 the average age of Indians are expected to be 29 years and smartphones are common. Youth everywhere are tech savvy. With the number of mobile owners is one million plus, 30% among them are smartphone users. Banks are focusing on adopting the latest technologies and providing a number of applications and products to improve customer service and withstand in the cutthroat competition. Provide the best digital solution for all banking activities especially payments anywhere any time is the present agenda of all the banks. The demonetization process aimed less cash society along with all stated goals and the government is pressing the banks to implements the same through, POS machines, mobile banking, mobile wallets, Adhar enabled payments systems, Jandhan accounts etc. A government of India even set a target of 25 billion digital transactions in the year 2017. Cheap availability of internet facilities especially by 'Gio' also helped in gaining momentum in the digitalization process and e-banking as well as m-banking.

The digitalization process in India gained momentum and pace recently. The technological infrastructure also increases rapidly and more and more people are into it day by day. And it is expected that the no cash payment which is 22% of the total payment will overtake cash payment by 2023. Thus in order to make cashless economy and digital India banks are focusing technological up gradation and innovations. SBI, being the largest bank in India, trying to be a forerunner of technological adaption and innovation in the nation.

Portable POS machines are a latest up gradation in the banking industry. Basically, they are now wifi enabled and so the internet connection is possible without connecting to the modem. The advantage is that even the customers can connect the POS machines to their mobile phone wifi and fund transfer is possible with that connection. SBI provides the facility of 'mPOS'. Near Field Communication (NFC) technology enabled Terminal are given for POS for safe and hassle-free banking. NFC (Near Field Communication) technology is the next generation short-range high-frequency wireless communication technology. NFC creates life easier and more convenient for customers around the world by making it simpler to make

transactions, exchange digital content, and connect electronic devices with a touch. It harmonizes today's diverse contactless technologies, enabling current and future solutions in various areas like payment, transportation & digital exchange.

Social media in Banking: The presents generation youngsters are chained to social media such as Facebook, twitter etc. The latest technology in banking is linking social media accounts of its customers with the bank accounts. So that the social media accounts of the customers can be used as a platform for basic banking activities. Most of the Indian banks are started making use of this innovation. SBI has also made use of this technology so that the youngsters are finding more comfort with the bank.

SBI has launched 'SBI Mingle' – its social media banking platform for Facebook and Twitter users. Using SBI Mingle, its customers can do a host of banking services like checking the balance and requesting ministatements on their Facebook or Twitter accounts. The Bank is also planning to introduce more services like a request for chequebook, stop cheque, register for mobile banking, internet banking, and SMS alerts and block ATM/Debit Card on this platform soon.

m-Wallet is the latest technological addition to the Indian banking system. The heavy rush of smartphone users and the demand for the mobile-based banking technology paved the way for m-Wallet. This is a mobile-based app which is designed for effortless authentication and transfer of money. In this common platform once the app is installed the user can transfer money from his account and keep the money in this account for e-trade and e-shopping and so on. Since online shopping and e- payments are gaining momentum instead of keeping liquid money in pocket people shift to the m-Wallets. M-Wallets provide bill payment facilities, recharge options and much more.

The BHIM app: The BHIM application launched by the Prime Minister on 30 December 2016 has been downloaded by over 16 million customers within a short time of six months. BHIM is a mobile app developed by National Payments Corporation of India, based on the Unified Payment Interface. Using BHIM, a customer can send, receive, collect money using virtual payment address (VPA), Account number plus IFSC. In June 2017, there were more than 4.6 million transactions under BHIM amounting to Rs 14,867 crores across 49 banks. SBI pay BHIM is the SBI version of BHIM payment portal. It enables an SBI merchant to accept payments for goods/services using his Android smartphone and fingerprint reader, from customers having Aadhaar seeded bank accounts, by authenticating the customer's biometrics. The transaction will be interoperable in nature

Aadhaar based payments: The introduction of aadhaar card and aadhaar authentication UIDAI has been a new light for the banking technology in India. The aadhaar authentication brought a new payment system ie Aadhaar Enabled Payment System (AEPS) and BHIM Aadhaar, a digital POS system that requires a smartphone with a biometric device for the merchant and does not require even a phone from the customer. BHIM Aadhaar is an extension of AEPS. BHIM SBIPay is the app developed by the SBI for easy, secure and instant payments.

QR code-based payment: Quick Response code (QR) based transaction is one of the latest innovation to bank payments. A QR based payment technology represents a new channel of initiating and accepting payments between buyers and sellers using the mobile phone. Bharat QR is a QR code based solution wherein the customer makes payment to the merchant by scanning a static or dynamic QR code. It is interoperable among major Card schemes i.e. Visa, MasterCard, and RuPay. Bharat QR-SBI is the application for these services launched by the SBI.

Digital mobile banking platforms: This innovation another integrated mobile based application where a verity of financial services is available. This platform offers series from a number of e-commerce companies plus almost all banking services. YONO (You Only Need One) is an integrated digital banking platform provided by State Bank of India (SBI) to enable users to access a variety of financial and other services. This innovation is been introduced on 24 November 2017. YONO provides services to over 60 e-commerce companies.

Chatbot service: Chatbot is a computer program designed to simulate a conversation with human users, especially over the Internet. This innovation is been first used by HDFC. SBI has very recently launched its Intelligent Assistant (SIA) to address customer enquiries and help them with everyday banking task.

There is many more innovation which exist ant developed countries banking sector which is yet to introduce in Indian banks such as DIGIPASS. DIGIPASS is security ensuring device which acts as One Time Password (OTP) generator. This device helps in preventing fraudulent activities related to OTP which the bankers receive as SMS.

FINDINGS AND SUGGESTIONS

- Banking sector innovations and up gradation increased the pace of banking activities.
- Innovations helped the customers to perform banking activities through various electronic devices and SBI is taking due initiatives to grab the advantages of all banking sector technologies.
- Latest technologies in banking are basically to attract new generation and an increasing number of customer who opts the new technology is high in SBI.
- Innovation in banking activities focuses more on the security aspect of transactions.
- Bank has to take care more efficiently and effectively the roll of financial awareness dispersal.

CONCLUSIONS

The scopes of innovation and technological advancement have sea scope in the banking sector. Indian banks are gaining momentum to on at par with other international banks to survive in the competition. India is one of the largest countries its diversity always counts. The main hindrance to the speedy shift entire banking system is the literacy deficiency. In the case of financial literacy Indian population is lagging far behind. Compelling them to the technological innovations in the banking will bounce bank and its negative effects like intermediaries cheating etc keep the people away from banking activities. Another aspect of concern is the cost aspect as well as the security of the innovations and up gradations. One the one side FinTech companies are mushrooming and a number of technologies introduced. For a small error in the banking sector, banks have to pay a big price and customer belief in the bank will be questioned. So along with innovations and up gradations, the banks have to promote financial awareness among the people. SBI being the largest PSU bank of the country eagerly adapting technological advancement in the banking sector and the response towards these technologies are quite high from the customer base of the bank.

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