

IMPACT OF INFORMATION TECHNOLOGY IN BANKING SECTOR

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ABSTRACT

Innovation through information technology (IT) has made inroads everywhere and banking is no exception to it. Whether it is private or public sector bank, everywhere innovation is the buzzword and technological breakthrough is witnessing new avenues of success. Competition is compelling everyone to move ahead and faster. Now, the working in public sector banks has been changing and customers are sensing the wave of innovation. These banks, which were working traditionally are now coming out and reaching to audience through billboards; FM radio and all possible media. Celebrity endorsements are now common in public sector banks as well. Indian banking sector has come a long way right from its inception in the 18th century. The revolution in the banking sector led to the introduction of Automated Teller Machines, Debit & Credit cards, NEFT, RTGS, internet banking etc. But the technological advancements all over the world has created a pressure for the use of better technology in the banking sector. This paper highlights different innovative products and services offered by Indian banks. The statistics quoted is taken from secondary sources. Towards the end, this paper does a critical analysis of the level of acceptance and adoption of these innovations by the banking customers. This paper is descriptive in nature and aims to illuminate the knowledge of the readers. The ultimate results can be seen in terms of enhanced customer satisfaction in public sector as well as private sector banks. In India, automation started off with State Bank of India in initial phase in 1995, where manual entry process was converted into computerized system in phases. Passbook entry, demand draft making, fixed deposit making and other operations were computerized to increase the speed of operations and productivity. All the banks were provided with computers connected with local area network. This facilitated the linkage and automation of operations within the branch.

KEYWORDS: Customers, innovation, private sector banks, public sector banks, Indian Banking Sector, pen Banking, API, CRM, Cloud Storage.

INTRODUCTION

Bank is a financial institution which accepts deposits and channels the money into lending for customers. Post-liberalization, India has seen exceptional growth in the banking sector backed by rising charts of public sector and private sector banks. Since Indian economy is moving on development pathway, banking sector is at a turning point. Entry of private players in banking has encouraged the application of marketing principles to business enterprises in the services (Apte, 2006). As per industry reports, Indian banking industry has been growing faster than the real economy resulting in GDP increasing to higher levels. In the current century, banking reforms have changed the way banking is done. Banking reforms have made transformational changes in India. Bank nationalization process has witnessed spectacular achievement in banking system through the expansion of bank branches (Kaul and Ahmed, 2005). Government of India declared nationalization for limiting the ownership and control of banks by few big business houses. Government wanted to prevent the concentration of wealth and economic power, thereby mobilizing the savings from common people. Banking industry can be classified as retail banking, commercial banking, corporate banking, investment banking NRI banking, etc. With years, banks are also adding value-added services for their customers (Pahuja and Kaur, 2007). Customers now have more options in choosing their banking operations. With advancement of technology coupled with high technology, banking services now have become more user-friendly than ever. Banks have played a fundamental role in economy and the continued strength and stability of the banking system is a matter of general public interest and concern

both in regard to its linkages with the real sector and for providing a payment and settlement system (Kapila and Kapila, 2001). Now, the banks are into consumer banking, corporate banking, finance and insurance, investment banking, mortgage loans, private equity, savings, securities, asset management, wealth management, credit cards etc. In India, modern marketing techniques adopted by nationalized banks and private banks include Internet banking as a major tool. Now, customers don't have to come to the bank; he/she can perform almost all the operations through his computer and even on mobile phone. These activities include opening of accounts, balance checking, transactions, tax filing, billing, loan applications and many more activities done online. Innovative service providers are interested in knowing how they can use new technological developments to automate and speed up processes, reduce costs, facilitate service delivery and relate more closely to their customers (Lovelock, 2004). Core banking has led to win-win situation for the banks as well as for the customers. Among all the banks, State Bank of India (SBI) group was the pioneer in computerization of banking operations in India. This is the largest and oldest bank in terms of revenue, assets and market capitalization. As of March 2016, SBI had revenues worth US\$41 billion with over 14,000 branches including 191 overseas branches. The Government of India nationalized it in 1955, where Reserve Bank of India took 60% stake and named it State Bank of India. It has been ranked 285th in the Fortune Global 500 rankings of the world's biggest corporations for the year 2012. Forbes has ranked it as 29th most reputed company in the world. Among private sector banks, ICICI Bank (Industrial Credit and Investment Corporation of India) is the largest in India. Founded in 1995, it is the second largest bank in India by assets and third largest by market capitalization. It offers extensive banking and financial services to retail as well as corporate customers through variety of channels. It has specialized subsidiaries in investment banking, life and non-life insurance, venture capital and asset management. The Bank has a network of 4,450 branches and nearly 14,000 ATM's in India and has a presence in 18 foreign countries. Its branches are in United States, Hong Kong, Singapore, Sri Lanka, Bahrain, Qatar and Dubai along with representative offices in UAE, China, Thailand, Malaysia, South Africa, Bangladesh and Indonesia. The analysis of the paper finds out that technology plays an important role in the implementation of a Customer Relationship Management program; especially in the banking industry. This is an important innovation to the banks. It means that if banks want to operate efficiently and effectively in their implementation of a CRM program, it's necessary for them to adopt technology as a supportive tool.

Transformation of Indian Banking-

Indian banking has undergone a total transformation over the last decade. Moving seamlessly from a manual, scale-constrained environment to a technological leading position, it has been a miracle. Such a transformation takes place in such a short span of time with such a low cost. Since, independence Indian banks have undergone through various phases which can be categorized as

Pre- Reform Period-

- A period of consolidation of banks up to 1966.
- A period of historic expansion in both geographical and functional terms from 1966-1980.
- A period of consolidation of branches from mid 1980-1991.

These above changes were policy induced but not driven by market force.

Post- Reform Period-

Entry of technology in Indian banking industry can be traced back to the Rangrajan committee Report, way back in the 1980s but during the 1990s, the banking sector witnessed various liberalization measure. One of the major objectives of Indian banking sector reforms was to encourage operational self-sufficiency, flexibility and competition in the system and to increase the banking standards in India to the international best practices. The second phase of reforms began in 1997 with aim to reorganization measures, human capital development, technological up-gradation, structural development which helped them for achieving universal benchmarks in terms of prudential norms and pre-eminent practices.

- ☐ With the ease of licensing norms, new private & foreign banks emerged-equipped with latest technology.
- ☐ Deregulation has opened up new opportunities for banks to increase revenues by diversifying into investment banking, insurance, credit cards, mortgage financing, depository services, securitization, etc

The role of banking is redefined from a mere financial intermediary to service provider of various financial services under one roof acting like a financial supermarket.

INNOVATIVE BANKING

Innovation means something new or something which had not been done before. The same goes for banking section as well. There are many sections in banks which are going through or have gone through innovation in recent past. They are no longer restricted to age-old (traditional) methods. Thus, to increase the business avenues and capture the new market banks are resorting to innovation.

There are many types of banking facilities that the banks have started in recent years. These are the following types of innovative banking used by the banks these days:

Mobile Banking

Mobile banking has been a revolution in the past few years. It has completely changed the way banking systems are working. Thus, it is a system that allows customers to perform many types of financial related services through a smart phone. These include services like ATM locations, bill payment alert, inter or intra-bank payments, bill payments, and many more. So, services are available at the fingertips of every person.

Internet Banking

Internet coverage in the last few years has increased drastically. This service is online banking, web banking, or virtual banking. Thus, this banking service allows its users to execute and perform any financial transaction or service with the help of the Internet. The banking facilities are provided traditionally at a local bank outlet. This includes bill payments, a deposit of money, borrowing of money, and other services are all available at one place. This service happens with the use of the Internet facility. In India, ICICI Bank was the first bank to avail it's customers the facility of Internet banking.

Retail and Wholesale Banking

Like other businesses, the banking sector to has evolved into retail and wholesale banking and it is also one of the parts of innovative banking. Here, retail banking refers to the banking in which the transactions which are done daily by the banks are executed with consumers. Thus, this is done instead of transactions with other banks or other corporates. The services under this are:

- Savings accounts
- Checking accounts
- Debit card
- Credit card

Wholesale banking is completely the opposite of retail banking. It refers to the business being conducted with the business and industrial entities. Thus, in wholesale banking, trading houses, domestic companies, and multinational companies are included. So, there are many services which are included in the wholesale banking and these services are:

- Value-added services
- Fund based services
- Non-fund related services
- Internet banking
- Multinational and offshore banking

Multinational banking is the banks that are present in more than one country. The main services are available in more than one country in these services. Thus, these banks are also called international banks. The first bank to offer its services outside India was Indian bank in 1946. Currently, Bank of Baroda has the maximum number of the overseas franchise in India. While under offshore banking, the banking activities are performed in the currencies that are different than the currency of the country in which the bank account is opened. The banking services in these banks remain the same though.

Narrow and Universal Banking

Narrow banking includes keeping together the higher part of deposits in risk-free assets like government securities. In India, this is basically in performance to reduce the size of the NPAs. While commercial, investment, insurance, and many other financial activities combine to form universal banking. Thus, in this practice every product is available changes.

Top Trends in Banking and Financial Services in India

The Banking industry and financial institutions are vital sectors of any economy. Development of these two sections of the economy can impact the growth of the country in an incredible way. In the era of “Digital India”, the banking and financial services in India have undergone a massive evolution and the phenomenon continues. The change can be attributed to various components like new regulatory policies and customer expectations. However, the one element that has affected banking and financial services the most is technological advancement. The emergence of innovative financial technology has revolutionized financial services in India as well as the banking sector. It has resulted in the introduction and advancement of several technology trends that have contributed to the radical transformation, growth, and advancement of these industries. The alliance between the innovative technologies of the financial sector and banking services has changed the conventional systems of handling money, and this collaboration is expected to create a massive shift with emerging trends in financial services. The rise of Fintech companies, internet banking, and mobile banking are some of the classic examples of emerging trends in the banking sector and financial services. In addition to the betterment of traditional systems, these banking and financial services industry trends are a few steps toward creating a cashless society, complete digital transformation, and the rise of Fintech. In this time of change, the only thing that is constant is change. The banking industry is going through a period of rapid change to meet competition, challenges of technology and the demand of end user. Clearly technology is a key differentiator in the performance of banks. Banks need to look at innovation not just for product but for process also. Today, technology is not only changing the environment but also the relationship with customers. Technology has not broken many barriers but has also brought about superior products and channels. This has brought customer relationship into greater focus. It is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business. The RBI has assigned priority to the up gradation of technological infrastructure in financial system. Technology has opened new product and services, new market and efficient delivery channels for banking industry. IT also provides the framework for banking industry to meet challenges in the present competitive environment. IT enables to cut the cost of global fund transfer. Some of the recent IT devices described as below-

Electronic Payment and Settlement System- The most common media of receipts and payment through banks are negotiable instruments like cheques. These instruments could be used in place of cash. The inter

bank cheques could be realized through clearing house systems. Initially there was a manual system of clearing but the growing volume of banking transaction emerged into the necessity of automating the clearing process. In order to strength the institutional framework of electronic & clearing system, RBI constituted a board for regulation and supervision of payment and settlement system (BPSS) in 2005. The Payment & settlement system act was passed on 2007 which empowered the RBI to regulate & supervise the payment and settlement system and provide a legal basis for multilateral netting and settlement. Important innovation in payment & settlement system introduced by RBI are below-

Use Of MICR Technology- Among the most important improvement in paper based clearing system was the introduction of MICR (Magnetic Ink Character Recognition) in the mid 1980s. MICR overcomes the limitation of clearing the cheques within banking hours and thus enables the customer to get the credit quickly. These are machine-readable codes added at the bottom of every cheque leaf which helped in bank and branch-wise sorting of cheques for smooth delivery to the respective banks on whom they are drawn. This no doubt helped in speeding the clearing process, but physical delivery of cheques continued even under this partial automaton

CTS (Cheque Truncation System)- The CTS was launched on pilot basis in new Delhi in 2008 with the participation of 10 Banks. Truncation means stopping the flow of the physical cheques issued by a drawer to the drawee branch. The physical instrument is truncated at some point en route to the drawee branch and an electronic image of the cheque is sent to the drawee branch along with the relevant information like the MICR fields, date of presentation, presenting banks etc. This would eliminate the need to move the physical instruments across branches, except in exceptional circumstances, resulting in an effective reduction in the time required for payment of cheques, the associated cost of transit and delays in processing, etc., thus speeding up the process of collection or realization of cheques. Every bank customer is expected to obtain new cheque books from their respective banks as early as possible preferably before the end of December 2012. All bank customers should use only "CTS 2010" cheques, which have more security features with effect from 1 January 2013.

Electronic Clearing Services (ECS) – The ECS introduced by RBI in 1995 which is similar to automated clearing houses that are operational in other countries like US. The ECS was the first version of "Electronic Payments" in India. It is a mode of electronic funds transfer from one bank account to another bank account using the mechanism of clearing house. It is very useful in case of bulk transfers from one account to many accounts or vice-versa. ECS facility available at more than 74 Centers in India. The beneficiary has to maintain an account with the one of bank at ECS centre.

There are two types of ECS (Electronic Clearing Service)

ECS- Credit - ECS credit clearing operates on the principle of „single debit multiple credits“ and is used for transactions like payment of salary, dividend, pension, interest etc

ECS-Debit- CS debit clearing service operates on the principle of „single credit multiple debits“ and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collections of principal and interest repayments. Settlement under ECS is undertaken on T+1 basis. Any ECS user can undertake the transactions by registering themselves with an approved clearing house.

The RBI has recently launched the National Electronic Clearing Service (NECS), in September 2008, which is an improvement over the ECS. Under NECS, all transactions shall be processed at a centralized location called the National Clearing Cell, located in Mumbai, as against the ECS, where processing is currently done at 74 different locations. ECS system has a decentralized functioning, and requires users to prepare separate set of ECS data centre-wise. Users are required to tie-up with local sponsor banks for presenting ECS file to each ECS Centre. As on September 2008, 25000 branches of 50 banks participate in the NECS. Leveraging on the core banking system, NECS is expected to bring more efficiency into the system.

Electronic Fund Transfer (EFT) - The EFT System was implemented in 1995 covering 15 centers where the Reserve Bank managed the clearing houses. Special EFT (SEFT) scheme, a variant of the EFT system, was introduced with effect from April 1, 2003, in order to increase the coverage of the scheme and to provide for quicker funds transfers. SEFT was made available across branches of banks that were computerized and connected via a network enabling transfer of electronic messages to the receiving branch in a straight through manner (STP processing). In the case of EFT, all branches of banks in the 15 locations were part of the scheme, whether they are networked or not. A new variant of the EFT called the National EFT (NEFT) was decided to implemented (November 2005) so as to broad base the facilities of EFT. This was a nationwide retail electronic funds transfer mechanism between the networked branches of banks. NEFT provided for integration with the Structured Financial Messaging Solution (SFMS) of the Indian Financial Network (INFINET). The NEFT uses SFMS for EFT message creation and transmission from the branch to the bank's gateway and to the NEFT Centre, thereby considerably enhancing the security in the transfer of funds. The commencement of NEFT led to discontinuation of SEFT, and EFT is now available only for government payments.

Automated Teller Machine (ATM) - ATMs were introduced to the Indian banking industry in the early 1990s initiated by foreign banks. It is perhaps most revolutionary aspect of virtual banking. The facility to use ATM is provided through plastic cards with magnetic strip containing information about the customer as well as the bank. In today's world ATMs are the most useful tool to ensure the concept of "Any Time Banking" and "Any Where Banking". The total number of ATMs installed in India by various banks as of end June 2012 was 99,218. The new private sector banks in India have the most offsite ATMs, followed by off-site ATMs belonging to SBI and its subsidiaries and then by nationalized banks and foreign banks, while on-site is highest for the nationalized banks of India..

CONCLUSION

The current economic environment calls for aggressiveness. This is because customers are more knowledgeable, have a variety to choose from, have more money and there is high competition from other companies. For the company to stay ahead of the market and be a market-oriented one, it needs to go where their customers are (technology enable/oriented). Technology can enable the company to offer good customer services as long as it has appropriate technology. It can also help the company to offer reliable and prompt service for example ATM's, Mobile Banking and On-Line Banking. The use of technology also enables the company to offer customised products and service by using the collected customer data e.g. using a CRM software. A business operating in a market with low competitor dynamism will benefit most from technology. This is because technology is a vital element of a bank's competitive advantage especially in the process of Customer Relations Management. In the modern business environment leading customer-driven companies establish measurement and feedback systems that allow them to chart the rate of their success and to guide their continuous improvement initiatives. They recognize the importance of monitoring their performance in meeting evolving customer expectations and implementing and initiating changes when appropriate. Hence there is need for the organization to adopt a consistent customer relationship culture that is up to date with the market and consumer changes. This is worth considering that the rate of research, innovation and development is taking place in the marketplace. The challenge for financial institutions today is to deliver the best service experience while saving on cost. Hence organizations will experience difficulties while adopting this type of technological support system. But despite these hurdles, technology is not an option for any organization that wants to have a working CRM process that is effective and efficient.

As the Indian banking is in transition phase from direct banking to the virtual banking two things stand out –

☑ Using Less Paper

☑ Doing Transaction Wirelessly

By designing and offering simple, safe and secure technology, banks reach at the doorsteps of the customers with an objective of “delight customer satisfaction”. In fact Information technology has succeeded in creating a win- win situation for all concerned segments in India.

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