

# Transformation of Indian Banking through IT- Enabled Services

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## Abstract

*Information Technology has become fuel for rapid change. Banking sector in India has been a major beneficiary of the inroad made by IT. The banks appear to be on fast track for IT based products and services. Many new processes, products and services offered by banks and other financial intermediaries are now IT centered. Another major development witnessed in recent years is the growth in multiple delivery channels to customers such as internet-based banking, mobile banking and anywhere banking. The major objective of the study is to focus on the role of information technology in managing bank transformation. The study also highlights the benefits of IT enabled services for customers and banks. It also focus on the major challenges faced by Indian banking industry in the use of information technology such as security, legal issues, building –up of skilled personnel and educating people about technological banking products. The study concluded that no doubt customers are benefitted by transformation but India is required to address the important issues to get the full benefits of information technology implementation.*

**Keywords:** *Information Technology, Indian Banking Industry, Customer*

## Introduction

Technological innovations have made sea changes in Indian Banking Industry and it has flourished to the level that it can compete with global players. Banking sector in India has been a major beneficiary of the inroad made by IT. Current stage is of IT advancement because technology continues to make a dramatic and profound impact in service industry and radically shapes how services are delivered (Bitner et al., 2000). Many new processes, products and services offered by banks and other financial intermediaries are now IT centered. Most of the initiatives regarding technology are aimed at providing better and more efficient customer services by offering multiple options to the customers. A common impact of IT enabled banking services has been upon the third 'P' of the marketing mix- the 'Place'. These services enable a bank customer to avail banking services from hundreds and thousands of places across the country and some of these across globe. Another major development witnessed in recent years is the growth in multiple delivery channels to customers such as internet-based banking, mobile banking and anywhere banking. Indian banking industry today is in the midst of an IT revolution. A combination of regulatory and competitive forces has led to increasing importance of total banking automation in the Indian banking Industry. Banks has moved from 'brick & mortar' banking to 'click & order' banking. Indian banking Industry is flying on the innovative and new wings of technology in search of new customers over new territories. Information technology developments in the banking sector have sped up communication and transactions for clients (Booz et al., 1997). The new technology has radically altered the traditional ways of doing banking business.

In fact in banking industry, IT is finding its use in five key areas:

- Convenience in product delivery access
- Managing productivity access
- Product design
- Adapting to market and customer needs
- Access to customer market

### **Objectives of the Study**

- The paper aims to explore some important and popular IT enabled services of banking institutions, its benefits and issue at present.
- The major objective of the study is to focus on the role of information technology in managing bank transformation.

### **Database of the Study**

The present study is based on the secondary data collected from published data of Reserve Bank of India. Various journals, magazines, websites and studies on this subject have also been referred in this study.

### **Technological Evolution of IT in Indian banking industry**

The early 1980s were instrumental in the introduction of mechanization and computerization in Indian banks. This was the period when banks as well as the RBI went very slow on mechanization, carefully avoiding the use of computers to avoid resistance from employee unions. However, during this critical period banks led to the slow and steady move towards large scale technology adoption.

### **Important events in evolution of IT**

- The introduction of MICR based cheque processing – a first for the region, during the years 1986-88.
- Arrival of card-based payments- Debit/ Credit card in late 1980s and 90s.
- Introduction of Electronic Clearing Services (ECS) in late 1990s.
- In 1994 RBI constituted a committee for technical up gradation of bank Based on the recommendations of the committee the Institute for Development and Research in Banking Technology (IDRBT) was established in 1996.
- In 1999 the collaborative efforts of IDRBT and RBI developed a satellite based wide area network known as Indian Financial Network (INFINET).The network is restrictive to be used by banks and financial institutions only.
- Introduction of Electronic Fund Transfer (EFT) in early 2000s.
- Introduction of RTGS in March 2004.

- Introduction of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer in 2005/2006.
- Cheque Truncation System (CTS) or Image-based Clearing System (ICS), in India, is a project undertaken by the Reserve Bank of India (RBI) in 2008, for faster clearing of cheques.

### **Bank Transformation & E-Delivery Channels**

Bank branches alone are no longer enough to offer services to meet the need of today's high demanding and challenging customers. In e-banking system, banks are expanding their customer base with the help of multiple e-delivery channels like ATMs, Credit/Debit/Smart Cards, Internet Banking, Mobile Banking, Tele-banking, EFTs etc. The virtual financial services can be largely categorized as follows:

#### **A. Automated Teller Machines**

- Cash withdrawals
- Details of most recent balance of account
- Mini statement
- Statement ordering facility
- Deposit facility
- Payments to third parties

#### **B. Remote Banking Services**

- Balance enquiry Statement ordering
- Funds transfer (payment) to third parties
- Funds transfer between customer's different accounts
- Order traveller's cheques and other financial instruments.

#### **C. Smart Cards**

(i) Stored value cards

(ii) As a replacement for all types of magnetic stripes cards like ATM Cards, Debit Cards, Charge Cards etc.

- One smart card to carry out all these functions
- One smart card can contain the functionality of several different types of cards issued by different banks while running different types of networks

#### **D. Internet Banking**

- The latest wave in IT is Internet banking. It is becoming more obvious that the Internet has unleashed a revolution that is affecting every sphere of life.
- Internet is an interconnection of computer communication networks spanning the entire globe, crossing all geographical boundaries.
- Touching lifestyles in every sphere the Net has redefined methods of communication, work, study, education interaction, health, trade and commerce. The Net is changing everything, from the way we conduct commerce, to the way we distribute information.
- Being an interactive two way medium, the net, through innumerable website, enables participation by individual in B2B and B2C commerce, visits to shopping malls, books stores, entertainment sides, and so on cyberspace.

#### **E. Interbank Mobile Payment Service (IPMC)**

- IPMC is an instant internet electronic fund transfer service through mobile phones.
- The customers can use mobile phone devices as a channel for accessing their bank accounts, remitting funds from the accounts and making payments at shops and commercial establishments.
- This is envisaged as a safe, secure, 24 x 7, convenient payment mechanism for Indian for domestic transactions.

**Table 1. Technological Developments of Scheduled Commercial Banks in India**

(Amt. in Millions)		
Item/Year	2015-16	2014-15
Total number of Credit Cards	24	21
Total number of Debit Cards	662	553
Number of ATMS	212061	189279

Source: Statistical Tables Relating to Banks in India (2015-16)

Table 1 clearly shows that number of credit cards, debit cards and ATMs have increased over a period of time.

#### **Benefits of IT-Enabled Banking Services**

##### **A. Benefits to Customers**

- Ability to draw cash outside normal banking hours for 24 hours a day and 7 days a week.
- Can get cash anywhere, anytime in the world where there ATM of concerned bank are installed.

- Enable the cardholder to avail soft credit and making him more mobile without the risk of carrying cash/cheques for shopping.
- Accurately transfer the funds, no chance of any fraud and theft as funds are directly transferred from one account to another account, no need of any cash.
- Electronic Clearing Services are cost effective and time saving because no need to make the payments personally by standing in long queues.
- Electronic Data Interchange reduces frauds in transferring their important trading documents.
- Customers perform number of non-cash transactions from the convenience of their own office or home in fact from anywhere they have access to phone.
- Mobile banking makes banking location independent. This technology serve to check details, issue new cheque book, payment of bills, instruction to stop payment, other value added services etc.
- Internet banking provides quality customer services with personal attention.
- RTGS is settlement done in real time, hence no delay in transaction. It helps in easy and safe management and transfer of funds.

#### **B. Benefits to Banks**

- Through ATM service, banks are more likely to retain existing customers and attract non-bank customers.
- Banks earn interest on credit offered to the customers.
- EFT reduces paper work and reduces over burden of appointing a special person to go to transfer funds from one place to another.
- Banks are benefitted from ECS in terms of commission on these transactions from parties, company and customer.
- Electronic Data Interchange helps to generate deposits from foreign exchange through exporters and importers.
- Through internet banking, banks gain competitive advantages by providing more competitive services.

#### **Major Issues with IT in Banking Services**

Security, legal issues, building –up of skilled personnel and educating people about technological banking products are some of the major issues or problems in the use of information Technology. These are discussed as follows:

- **Security:** Internet Banking could result in the siphoning off money by perpetrators of computer crime. Therefore, banks need to put place of computer security-related hardware and software and software such as firewalls, encryption programs and virus protection software.
- **Legal Issues:** Legal issues arising out of siphoning off cash electronically by computer criminals will pose a major challenge to Indian banks. IT Act provides the security and legal framework for e- commerce transactions.
- **Building-up of skilled personnel:** There is need to building up a pool of software application developers and database administrators who can handle e- business application under proper supervision.
- **Educating customers for IT enabled services:** The technological transformation has also created a fear-factor among customers due to security, unawareness and unfamiliar with the use of technology, especially in country like India.

## Conclusions

The transformation in banking services is providing various advantages to customers with anytime, anywhere access to their accounts as well as power to operate their accounts. IT-enabled banking services has not only increased the cost effectiveness but also helped in making small value transactions. It also enhanced choices, created new markets and improved productivity and efficiency. Without information technology and communication we cannot think about the success of banking industry, it has enlarged the role of banking sector in Indian Economy. Although the change is good but still banks in India are required to address the important issues to get the full benefits of information technology implementation. Banks need to focus on swift and continued infusion of technology.

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