

# Impact of Information Technology in Indian Banking Industry: A Review

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#### **Abstract**

Technological innovations witnessed by the banking sector during the nineties have changed the way business needs to be conducted. IT has introduced new business paradigms and is increasingly playing a significant role in improving the services in the ban king industry. There is a long history of banking services in India. The history of banking is as old as human history. More particularly in the area of Information Technology (IT), where India has definitely an edge over its competitors, remaining away or uniformity of the world trends is untenable. Financial sector in general and banking industry in particular is the largest spender and beneficiary from information technology. This endeavours to relate the international trends in it with the Indian banking industry

**Key words:** Technological, innovations, Information, human etc.

### Introduction

In recent times, Indian banking industry is consistently working towards implementing technological changes in the banking operations. Indian banks are continuously encouraging investment in information technology, i.e. ATMs, internet banking, mobile and tele-banking, computerization in banks, plastic money, establishment of call centers, etc. RBI has also adopted IT in endorsing the payment system's functionality and modernization on an ongoing basis through Electronic Clearing Services (ECS), Electronic Funds Transfer (EFT), Indian Financial Network (INFINET), Real-Time Gross Settlement (RTGS) System, Centralized Funds Management System (CFMS), Negotiated Dealing System (NDS), Structured Financial Messaging System (SFMS) and India Card. Consequently, Indian banking environment has become more compatible as compared to the standards of international financial system. This explosive growth in information technology has considerably changed the way in which commercial banks conduct business. In order to survive and adapt to the changing environment, the banks are putting more stress on understanding the drivers of success to generate superior financial performance. The impact of information technology on



the performance of an organization is still a paradox. Hence, the present study makes an attempt to map the impact of IT on the performance of banking sector for scheduled commercial banks operating in India including public, private and foreign sector banks.

## **Transformation of Indian Banking:-**

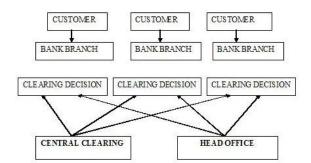
Indian banking has undergone a total transformation over the last decade. Moving seamlessly from a manual, scale-constrained environment to a technological leading position, it has been a miracle. Such a transformation takes place in such a short span of time with such a low cost. Entry of technology in Indian banking industry can be traced back 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 practises. With the ease of licensing norms, new private and foreign banks emerged-equipped with latest technology. Deregulation has opened up new opportunities to banks to increase revenues by diversifying into investment banking, insurance, credit cards, mortgage financing, depository services etc. The role of banking is redefined from a mere intermediary to service provider of various financial services under one roof acting like a financial supermarket.

### **Impact of IT on Banking System:**

The banking system is slowly shifting from the Traditional Banking towards relationship banking. Traditionally the relationship between the bank and its customers has been on a one-to-one level via the branch network. This was put into operation with clearing and decision making responsibilities concentrated at the individual branch level. The head office had responsibility for the overall clearing network, the size of the branch network and the training of staff in the branch network. The bank monitored the organisation's performance and set the decision making parameters, but the information available to both branch staff and their customers was limited to one geographical location.

### **Traditional Banking Sector**





The modern bank cannot rely on its branch network alone. Customers are now demanding new, more convenient, delivery systems, and services such as Internet banking have a dual role to the customer. They provide traditional banking services, but additionally offer much greater access to information on their account status and on the bank's many other services. To do this banks have to create account information layers, which can be accessed both by the bank staff as well as by the customers themselves. The use of interactive electronic links via the Internet could go a ling way in providing the customers with greater level of information about both their own financial situation and about the services offered by the bank.

#### Important events in evolution of Information Technology:-

- Introduction of MICR based cheque processing
- Arrival of card based payments
- Introduction of Electronic Clearing Services
- Introduction of RTGS/NEFT
- Introduction of Cheque Truncation System (CTS) or Image-based Clearing System (ICS)
- Introduction of Core Banking Solutions (CBS)
- Introduction of Automated Teller Machine (ATMs)
- Introduction of Phone and Tele Banking
- Introduction of Internet and Mobile Banking

# Some of the recent IT devices described as below:-



Electronic Fund Transfer (EFT) – EFT 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.

**Real Time Gross Settlement (RTGS)** – RTGS system is a funds transfer mechanism where transfer of money takes place from one bank to another on a 'real time' and on 'gross basis'. This is the fastest possible money transfer system through the banking channel. Settlement in 'real time' means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. "Gross settlement" means the transaction is settled on one to one basis without bunching with any other transaction.

Core Banking Solutions (CBS) – Computerization of bank branches had started with installation of simple computers to automate the functioning of branches, especially at high traffic branches. Core Banking Solutions is the networking of the branches of a bank, so as to enable the customers to operate their accounts from any bank branch, regardless of which branch he opened the account with. The networking of branches under CBS enables centralized data management and aids in the implementation of internet and mobile banking. Besides, CBS helps in bringing the complete operations of banks under a single technological platform.

**Development of Distribution Channels** – The major and upcoming channels of distribution in the banking industry, besides branches are ATMs, internet banking, mobile and telephone banking and card based delivery systems.

**Automated Teller Machine (ATM)** – ATMs are 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 ATM are the most useful tool to ensure the concept of "Any Time Banking" and "Any Where Banking".

**Phone Banking** – Customers can now dial up the banks designed telephone number and he by dialling his ID number will be able to get connectivity to bank's designated computer. By using Automatic voice recorder (AVR) for simple queries and transactions and manned



phone terminals for complicated queries and transactions, the customer can actually do entire non-cash relating banking on telephone: Anywhere, Anytime.

**Tele Banking** – It is another innovation, which provided the facility of 24 hour banking to the customer. Tele-banking is based on the voice processing facility available on bank computers. The caller usually a customer calls the bank anytime and can enquire balance in his account or other transaction history.

**Internet Banking** – Internet banking enables a customer to do banking transactions through the bank's website on the internet. It is system of accessing accounts and general information on bank products and services through a computer while sitting in its office or home. This is also called virtual banking.

**Mobile Banking** – Mobile banking facility is an extension of internet banking. Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device. Unlike the related internet banking it uses software, usually called an App, provided by the financial institution for the purpose. Mobile banking is usually available on a 24 hour basis. Some financial institutions have restrictions on which accounts may be accessed through mobile banking, as well as a limit on the amount that can be transacted. Transactions through mobile banking may include obtaining account balances and lists of latest transactions, electronic bill payments, and fund transfers between a customer's or another's accounts.

#### **Conclusion**

Information Technology offers enormous potential and various opportunities to the Indian Banking sector. It provides cost-effective, rapid and systematic provision of services to the customer. The efficient use of technology has facilitated accurate and timely management of the increased transaction volumes of banks which comes with larger customer base. Indian banking industry is greatly benefiting from IT revolution all over the world. Virtual Banking or Direct Banking is now gaining importance all over the world. According to this concept Banks offer products, services and financial transaction only through electronic delivery channels generally without any physical branch. Owing to lower branch maintenance and manpower cost such banks are able to offer competitive pricing for their product and services as compared to traditional banks.



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