# Technological Developments in Indian Scheduled Commercial Banks

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Abstract - Information technology plays vital role in the development of any industry through reducing the geographical barriers. Indian Banking sector has been showing greater emphases on the technology and innovation since the reforms. The Indian banking sector has undergone noteworthy transformation from local branch banking to anywhere-anytime banking with the implementation of technology. Over the past couple of years, a huge growth has been registered in the number of transactions done through electronic devices. Indian banks have increased number of technological products like Net Banking, Mobile Banking, Online Shopping, Ticket Booking, Bill Payment and Automated Teller Machines (ATMs) etc. The present study is an attempt to analyze the technological developments in Indian banking sector.

Keywords - Technology, Mobile Banking, ATMs, Net Banking, Electronic Fund Transfer.

# INTRODUCTION

The weakening domestic macroeconomic conditions combined with continuing hushed global growth and its increasing challenges to the banking sector during 2012-13. To handle these challenges a number of policy initiatives were undertake during the year. The Indian Banking system is typical and possibly has no parallel in the banking history of any country in the world. It is very interesting to study the evolution of Indian Banking over the Last five decades, in terms of organization, functions, resource mobilization, Socioeconomic roles, problems and solutions. The period of five decades witnessed many macro-economic developments, monetary and banking policies and the external situation, which influenced the evolution of Indian banking in different ways and in different periods

The banking sector in India started its history (phase 1) with the General Bank of India and The Bank of Hindustan in 1786. After the defunct of these two banks three new presidency banks were came in existence namely The Bank of Calcutta (1840), The Bank of Bombay (1840) and The Bank of Madras established by East India Company. In 1865 Allahabad Bank and in 1895 Punjab National Bank were set up. Then Imperial bank of India came into existence in 1921. The Imperial bank of India acted as a central bank and as a banker for other banks. After that a

series of bank started its operation. Reserve Bank of India was set up in 1935. In 1950 (phase 2) the Indian banking system compromised of the Reserve Bank of India, The Imperial Bank of India, Cooperative Banks, Exchange Banks and Indian Joint stock Banks. After independence, in 1951, the all India Rural Credit Survey and Committee of Direction with Sh. A.D. Gorwala as Chairman recommended amalgamation of the Imperial Bank of India and ten other banks into a newly established bank called State Bank of India (SBI). Imperial Bank of India was nationalized in 1955 as the State Bank of India. In 1959 the SBI (Subsidiary Bank) Act was proposed and the following eight State associated banks were taken over by the SBI as its subsidiaries. On 19th July 1969, the Prime Minister Mrs. Indira Gandhi announced the nationalization of 14 major scheduled commercial banks each having deposits worth Rs. 50 crores and above. This was the turning point in Indian commercial banking in India. Later on 15th April 1980, six more commercial private sector banks with deposit liability of not less than Rs. 200 crores were also nationalized. In 1975 Regional Rural Banks came into existence to supplement the activities of the commercial banks and to especially meet the credit needs of the rural society. At present total number of banks in public sector are 26 i.e. SBI and its associates (6) & nationalized banks (19). IDBI bank ltd. which was earlier a new private sector bank now converted into public sector bank. Old private

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sector banks are 13, new private sector banks are 7 and foreign banks are 41 in number.

# Technology in Indian banking sector

Indian banks use so many technological products in their operations. Various technological tools like Internet Banking, mobile Banking, Online shopping, Ticket booking, Bills payment, Fund transfers and Automated Teller Machines (ATMs) are used by Indian banks at present.

#### **REVIEW OF LITERATURE**

The literature review section examines historically significant research studies, company data or industry reports that act as a basis for the projected study. It may also explain the need for the proposed work to appraise the shortcomings and informational gaps in secondary data sources.

Agrawal and Jain (2013) measured the technological advancement in the Indian banking sector. The main purpose of the study was to analyze the effect of innovation in banking on growth and development of the India. The paper studied about financial innovations in the Indian banking sector. It was found that banks boost technological investment spending strongly to address revenue cost and competitiveness concerns.

Ahmad (2011) analyzed the impact of Information Technology on the accounting system of State Bank of India in Rajasthan. It was found that use of Information Technology in the State Bank of India has a positive impact on total income. Further, it was found that increase in the deposits of banks has positive impact of Information Technology.

Rawani and Gupta (2002) presented an analytical study regarding the role of information system in Indian Banking. It was found that there is significant need for determining the role of information system in banks. Further, it was found that the future impact of information system does not vary significantly with the banking groups. It was suggested that information system efforts put in by public sector banks are in right direction and expected to give a strategic advantage in the future.

**Dhanwani (2013)** examined the recent trends in the Indian banking industry. It was found that Indian banking industry has experienced a series of significant transformation in the last few decades.

**Sawant (2011)** analyzed the technological development in Indian Banking sector. It was found that Indian banks using information technology not only to improve their own internal processes but also to increase facilities and services to their customers. Efficient use of technology has facilitated accurate and timely management of the increase transaction of the banks.

#### **OBJECTIVE OF THE STUDY**

The main objective behind present study is to discuss the technological developments in Indian banking sector.

#### RESEARCH METHODOLOGY

Research is an organized and systematic way of finding answers to questions. Research methodology can be described as a way to systematically solve the research problem by logically adopting various steps. For finding or exploring research questions, a researcher faces lot of problems that can be effectively resolved with using correct research methodology. The present study is an attempt to evaluate the technological developments in the Indian Banking sector. In the present study secondary sources have been used i.e. research papers in various reputed journals, books and various articles in different newspapers. The present study is based on the Secondary data which are collected from the Trend and Progress Report of Reserve Bank of India.

#### **FINDINGS AND DISCUSSION**

The findings of the study are shown with the help of technological developments take place in the Indian banking sector. Some important technological developments that are take place in the area of banking in India are as following:

Automated Teller Machines (ATMs): Automated Teller Machines (ATMs) are the most popular devises used by the customer in India. With the help of ATM anyone who has an ATM card can withdraw money from the ATM machine 24 hours and 7 days of the week. The following table shows the no of ATMs in the country in the year 2012-13:-

#### **Table 1: ATMs of Scheduled Commercial Banks**

(As at end-March 2013)

Sr. No.	Bank Group	Onsite ATMs	Offsite ATMs	Total ATMs
1.	Public Sector Banks	40241	29411	69652
	Nationalized Banks	20658	14701	35354
	SBI Group Banks	18708	13883	32591
2.	Private Sector Banks	15236	27865	43101
	Old Private Sector Banks	4054	3512	7566
	New Private Sector Banks	11182	24353	35535
3.	Foreign Banks	283	978	1261
	All SCBs (1+2+3)	55760	58254	114014

Source: RBI

Real time gross settlement (RTGSs): This system was introduced in India since March 2004. Real Time Gross Settlement system is a system through which electronics instructions can be given by banks to transfer funds from one account to the account of another bank.

Electronic Fund Transfers (EFTs): New variant of the EFT called the National EFT (NEFT) was implemented in November 2005, so as to broad base the facilities of EFT. NEFT provided for integration with the Structured Financial Messaging Solution (SFMS) of the Indian Financial Network (INFINET) and was a nationwide retail electronic funds transfer mechanism between the networked branches of banks.

Table 2: Electronic Transactions by Scheduled Commercial Banks (Value in Rs. Millions)

Types of Transactions	Value (2011-12)	Value (2012-13)	% Change
ECS Credit	1838	1771	-3.6
ECS Debit	834	1083	29.6

Credits Cards	966	1230	27.3
Debit Cards	534	743	39.1
NEFT	17904	29022	62.1
RTGS	539308	676841	25.5

Source: RBI

Electronic clearing system (ECS): The Electronic Clearing Service (ECS) introduced by the RBI in 1995 with an objective of the Automated Clearing House system that is operational in certain other countries like the US. ECS has two variants- ECS debit clearing and ECS credit clearing service.

Tele banking: Tele Banking is helpful to the customer to do entire non-cash related banking on telephone. Under this system Automatic Voice Recorder is used for simpler queries and transactions. For complicated queries and transactions, manned phone terminals are used.

**Electronic Data Interchange:** Electronic Data Interchange is the process by which the electronic exchange of business documents like purchase order, invoices, shipping notices, receiving advices is became possible in a standard, computer processed, universally accepted format between trading partners. EDI can be helpful to transmit financial information and payments in electronic form.

Satellite Banking: Satellite banking is an upcoming technological development in the Indian banking industry, which is predictable to help in solving the problem of weak regional communication links in many parts of the country. The use of satellites for establishing connectivity between branches will help banks to get in touch with rural and hilly areas in a better way, and offer better facilities, particularly in relation to electronic funds transfers.

Cheque Truncation system: Truncation is stopping the movement of the physical cheque which is to be condensed at some point en-route to the drawee branch and an electronic image of the cheque would be sent to the drawee branch along with the relevant information like the MICR fields, date of presentation, presenting banks etc. Thus, the Cheque Truncation System is helpful in reducing the probability of frauds, reconciliation problems, logistics problems and the cost of collection.

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#### **CONCLUSION**

For conclusion we can say that Information technology plays vital role in the development of any industry through reducing the geographical barriers. Indian Banking sector has been showing greater emphases on the technology and innovation since the reforms. The present study finds that the Indian Banking sector has developed so many technological products for their customers. Technical innovations have come in the Indian banking industry. So it is concluded that Indian banking sector make so many developments in the field of technology.

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