

*Impact of E-Banking  
on  
Indian Trade System*

*R.S.Shinde*



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# Use of IT in Banking Industry of India: An Overview

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## Introduction:

The use of computers in the banking sector in India has increased many folds after the economic liberalization of 1991 as the country's banking sector has been exposed to the world's market. Indian banks were finding it difficult to compete with the international banks in terms of customer service, without the use of information technology.

In recent years, use of computers and information technology has been continuous increasing and the effect of this led to introduction of e-banking. Due to its large customer base, high volume of transactions and changing consumer needs Bank aims to provide its customers with innovative financial products and use different delivery channels and that is one of the example is e-banking.

“Bank means that person or institutions which are accepting money from public as deposit, on the terms on repay when they demanded or lend them on the demand which is known as bank”.

## Definition of Banking Business:

- "Banking business" means the business of receiving money on current or deposit account, paying and collecting cheques drawn by or paid in by customers, the making of advances to customers, and includes such other business as the Authority may prescribe for the purposes of this Act; (Banking Act (Singapore), Section 2, Interpretation).
- "Banking business" means the business of either or both of the following:
  1. receiving from the general public money on current, deposit, savings or other similar account repayable on demand or within less than [3 months] ... or with a period of call or notice of less than that period;
  2. paying or collecting cheques drawn by or paid in by customers

## E-Banking:

1. “Electronic Banking is the use of a computer to retrieve and process banking data and to initiate transactions directly with a bank via a telecommunications network”.

Lipis et al,1986.

2. "Electronic Banking is actually a repackaging, delivery and processing of traditional banking financial services such as cash withdrawals, fund transfers, placement of deposits through an electronic on-line medium as compared to customary paper based, off-line system"

**Tan Min Ching , 1993.**  
ELECTRONIC BANKING Electronic banking, also known as electronic funds transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or cash. You can use electronic funds transfer to: • have your pay cheque deposited directly into your bank or credit union checking account; • withdraw money from your checking account from an ATM machine.

#### **Initiative taken by RBI to Promote Technology in Banking Industry**

The RBI set up a number of committees to define and co-ordinate banking technology. These have included:

- In 1984 was formed the Committee on Mechanization in the Banking Industry (1984) whose chairman was Dr. C Rangarajan, Deputy Governor, Reserve Bank of India. The major recommendations of this committee were introducing MICR technology in all the banks in the metropolises in India. This provided for the use of standardized cheque forms and encoders.
- In 1988, the RBI set up the Committee on Computerisation in Banks (1988) headed by Dr. C Rangarajan. It emphasized that settlement operation must be computerized in the clearing houses of RBI in Bhubaneshwar, Guwahati, Jaipur, Patna and Thiruvananthapuram. It further stated that there should be National Clearing of inter-city cheques at Kolkata, Mumbai, Delhi, Chennai and MICR should be made operational. It also focused on computerisation of branches and increasing connectivity among branches through computers. It also suggested modalities for implementing on-line banking. The committee submitted its reports in 1989 and computerisation began from 1993 with the settlement between IBA and bank employees' associations.
- In 1994, the Committee on Technology Issues relating to Payment systems, Cheque Clearing and Securities Settlement in the Banking Industry (1994) was set up under Chairman W S Saraf. It emphasized Electronic Funds Transfer (EFT) system, with the

BANKNET communications network as its carrier. It also said that MICR clearing should be set up in all branches of all those banks with more than 100 branches.

- In 1995, the Committee for proposing Legislation on Electronic Funds Transfer and other Electronic Payments (1995) again emphasized EFT system.
- The total number of automated teller machines (ATMs) installed in India by various banks as of end **June 2012 is 99,218**. The new private sector banks in India have the most ATMs, followed by off-site ATMs belonging to SBI and its subsidiaries and then by nationalised banks and foreign banks, while on-site is highest for the nationalised banks of India.

<b>Branches and ATMs of Scheduled Commercial Banks as of end March 2005</b>				
<b>Bank type</b>	<b>Number of branches</b>	<b>On-site ATMs</b>	<b>Off-site ATMs</b>	<b>Total ATMs</b>
Nationalised banks	33,627	3,205	1,567	4,772
State Bank of India	13,661	1,548	3,672	5,220
Old private sector banks	4,511	800	441	1,241
New private sector banks	1,685	1,883	3,729	5,612
Foreign banks	242	218	582	800
<b>TOTAL</b>	<b>53,726</b>	<b>7,654</b>	<b>9,409</b>	<b>17,645</b>

#### **Expansion of banking infrastructure**

As per the census of 2011, 58.7% of households are availing banking services in the country. There are 102,343 branches of Scheduled Commercial Banks (SCBs) in the country, out of which 37,953 (37%) bank branches are in the rural areas and 27,219 (26%) in semi-urban areas, constituting 63% of the total numbers of branches in semi-urban and rural areas of the country. However, a significant proportion of the households, especially in rural areas, are still outside the formal fold of the banking system. To extend the reach of banking to those outside the formal banking system, Government and Reserve Bank of India (RBI) are taking various initiatives from time to time some of which are enumerated below:

- **Opening of bank branches:** Government had issued detailed strategy and guidelines on Financial Inclusion in October 2011, advising banks to open branches in all habitations of 5,000 or more population in under-banked districts and 10,000 or more population in other districts. Out of 3,925 such identified villages/habitations,

branches have been opened in 3,402 villages/habitations (including 2,121 Ultra Small Branches) by end of April, 2013.

- **Each household to have at least one bank account:** Banks have been advised to ensure service area bank in rural areas and banks assigned the responsibility in specific wards in urban area to ensure that every household has at least one bank account.
- **Business Correspondent model:** With the objective of ensuring greater financial inclusion and increasing the outreach of the banking sector, banks were permitted by RBI in 2006 to use the services of intermediaries in providing financial and banking services through the use of Business Facilitators (BFs) and Business Correspondents (BCs). Business correspondents are retail agents engaged by banks for providing banking services at locations other than a bank branch/ATM. BCs and the BC agents (BCAs) represent the bank concerned and enable a bank to expand its outreach and offer limited range of banking services at low cost, particularly where setting up a brick and mortar branch is not viable. BCs as agents of the banks, thus, are an integral part of the business strategy for achieving greater financial inclusion. Banks had been permitted to engage individuals/entities as BC like retired bank employees, retired teachers, retired government employees, ex-servicemen, individual owners of kirana/medical/fair price shops, individual Public Call Office (PCO) operators, agents of Small Savings Schemes of Government of India, insurance companies, etc. Further, since September 2010, RBI had permitted banks to engage "for profit" companies registered under the Indian Companies Act, 1956, excluding Non-Banking Financial Companies (NBFCs), as BCs in addition to individuals/entities permitted earlier. According to the data maintained by RBI, as in December, 2012, there were over 152,000 BCs deployed by Banks. During 2012-13, over 183.8 million transactions valued at ₹165 billion (US\$2.8 billion) had been undertaken by BCs till December 2012.
- **Swabhimaan Campaign:** Under "Swabhimaan" - the Financial Inclusion Campaign launched in February 2011, banks had provided banking facilities by March, 2012 to over 74,000 habitations having population in excess of 2000 using various models and technologies including branchless banking through Business Correspondents Agents (BCAs). Further, in terms of Finance Minister's Budget Speech 2012-13, the

"Swabhimaan" campaign has been extended to habitations with population of more than 1,000 in North Eastern and Hilly States and to habitations which have crossed population of 1,600 as per census 2001. About 40,000 such habitations have been identified to be covered under the extended "Swabhimaan" campaign.

- **Setting up of ultra-small branches (USBs):** Considering the need for close supervision and mentoring of the Business Correspondent Agents (BCAs) by the respective banks and to ensure that a range of banking services are available to the residents of such villages, Ultra Small Branches (USBs) are being set up in all villages covered through BCAs under Financial Inclusion. A USB would comprise a small area of 100 sq. ft. (9.3 m<sup>2</sup>) - 200 sq. ft. (19 m<sup>2</sup>) where the officer designated by the bank would be available with a laptop on pre-determined days.
- **Banking facilities in Unbanked Blocks:** All the 129 unbanked blocks (91 in North East States and 38 in other States) identified in the country in July 2009, had been provided with banking facilities by March 2012, either through Brick Mortar Branch or Business Correspondents or Mobile van. As a next step it has been advised to cover all those blocks with BCA and Ultra Small Branch which have so far been covered by mobile van only.
- **USSD Based Mobile Banking:** National Payments Corporation of India (NPCI) worked upon a "Common USSD Platform" for all banks and telcos who wish to offer the facility of Mobile Banking using Unstructured Supplementary Service Data (USSD) based Mobile Banking. The Department helped NPCI to get a common USSD Code \*99# for all telecommunication companies. More than 20 banks have joined the National Uniform USSD Platform (NUUP) of NPCI and the product has been launched by NPCI with BSNL and MTNL. Other telecommunication companies are likely to join in the near future.

#### **Service Delivery Channels:**

- **Branch:** A branch, banking centre or financial centre is a retail location where a bank or financial institution offers a wide array of face-to-face service to its customers.
- **Mail:** Mail is part of the postal system which itself is a system wherein written documents typically enclosed in envelopes, and also small packages containing other matter, are delivered to destinations around the world.

- **Telephone Banking** : Banking services available on telephone.  
7x24 banking through the phone  
CTI(Computer Telephony Integration)  
Manage each call using the computer  
Pop up the user information while transferring the call  
Agent Desktop Application  
Win32,ActiveX, HTML  
Host Application
- **Core Banking** : Core banking is a general term used to describe the services provided by a group of networked bank branches. Bank customers may access their funds and other simple transactions from any of the member branch offices.
- **Internet Banking**  
More and more banks are coming to realize that internet is a part of banks' alternative delivery channel strategies activities concentrated in the business-to-consumer segment, focused on retaining clients  
In Internet banking, security is a primary concern. Security concerns have been addressed from every angle within the architecture of the Internet banking application.
- **Mobile Banking**  
Current Mobile Banking Applications:  
SMS Banking  
WAP Banking  
STK (Sim Toolkit) Banking
- **SMS Banking**  
Basic banking inquiry transactions(balance inquiry, funds, exchange rate inquiry...) are performed by the cooperation of bank and the GSM operator  
Security is the main problem
  - Bank SMS Gateway
  - Bank SMS DB
  - Leased line
  - GSM Operator Application Server
  - GSM Operator SMS DB
  - GSM Network
  - Bank Host



- **WAP Banking**

Wireless application protocol (WAP) is an application environment and set of communication protocols for wireless devices designed to enable manufacturer-, vendor-, and technology-independent access to the Internet and advanced telephony services.

WAP is a global standard and is not controlled by any single company. Various banking transactions offered in WAP environment by banks. Similar architecture with SMS banking

- **SIM Toolkit**

SIM card enables to keep and load different applications.

SIM Application Toolkit has been agreed as a GSM standard

SIM Application Toolkit is independent of phone manufacturers and designs.

SIM Application Toolkit allows the flexibility to update the SIM to alter the services and download new services over the air

SIM Application Toolkit is designed as a client-server application. On the server side, SimCard platform and the client side, phone that supports the SIM Application Toolkit

In the near future, banks will start to offer banking transactions in this platform.

- **Television Banking**

Advantages of DTV over analog TV include:

Superior image resolution (detail) for a given bandwidth

Smaller bandwidth for a given image resolution

Compatibility with computers and the Internet

Interactivity

Superior audio quality

Consistency of reception over varying distances

Banks offer their banking transaction in this new environment

T-commerce in the near future.

**What is the Next channel ?**

- **Microwave Banking**

The Microwave Bank was developed by NCR's U.K.-based Knowledge Lab, a research center aimed at the development of e-commerce products.

**Services available with the help of Technology in Banking:**

**EASZY 24/7 SERVICES**

- Customer Notifications/Alerts
- Customer DR/CR advices
- Exchange rates Enquiries
- Account Balance Enquiries
- Airtime Purchase
- Cheque book Request
- Full statements requests
- Mini Statement Enquiry
- Stop Cheque Instructions
- Bulk SMS to Customers
- Utility bills payment
- Loan Repayment Notifications
- Loan Approval Notifications
- Funds Transfer
- Person to person payments
- Person to business payments
- Business to person payments
- Stop card instructions

**Conclusion:**

Finally I would like to say here use of information technology is the need of time and now days information technology is the back bone of the banking industry, with help of technology banking industry has been continuously grown and expand their business area without any limitations with this Banks became customer friendly.

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