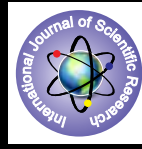


Recent Technological Development in Indian Banking Sectors



Management

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ABSTRACT

Banking sector plays a significant role in development of Indian economy. So banks need to optionally leverage technology to increase penetration, improve their productivity and efficiency, deliver cost-effective products and services, provide faster, efficient customer service and thereby, contribute to the overall growth and development of the country. Effective use of technology has a multiplier effect on growth and development. Banking technology as a several disparate disciplines such as finance, information technology, computer science, communication technology, and marketing science. The present evolution of banking, the tremendous influence of information and communication technologies on banking and its products. It also highlights the use of advanced statistics and computer science to measure, mitigate, and manage various risks associated with bank business with its customers and other banks. The chapter concludes by saying that the recent banking technology discipline is all set for rapid growth in future.

INTRODUCTION:-

Banking in India in the modern sense originated in the last decades of the 18th century. The first banks were Bank of Hindustan (1770-1829) and The General Bank of India, established 1786 and since defunct. The largest bank, and the oldest still in existence, is the State Bank of India, which originated in the Bank of Calcutta in June 1806, which almost immediately became the Bank of Bengal. This was one of the three presidency banks, the other two being the Bank of Bombay and the Bank of Madras, all three of which were established under charters from the British East India Company. The three banks merged in 1921 to form the Imperial Bank of India, which, upon India's independence, became the State Bank of India in 1955. For many years the presidency banks acted as quasi-central banks, as did their successors, until the Reserve Bank of India was established in 1935. In 1969 the Indian government nationalized all the major banks that it did not already own and these have remained under government ownership. They are run under a structure known as 'profit-making public sector undertaking' (PSU) and are allowed to compete and operate as commercial banks. The Indian banking sector is made up of four types of banks, as well as the PSUs and the state banks, they have been joined since the 1990s by new private commercial banks and a number of foreign banks.

Banking in India was generally fairly mature in terms of supply, product range and reach-even though reach in rural India and to the poor still remains a challenge. The government has developed initiatives to address this through the State bank of India expanding its branch network and through the National Bank for Agriculture and Rural Development with things like microfinance. Developments in the field of information technology (IT) strongly supports the growth and inclusiveness of the banking sector by facilitating inclusive economic growth. IT improves the front end operations with back end and helps in bringing down the transaction costs for the customers.

RECENT TECHNOLOGICAL DEVELOPMENT IN BANKING SECTOR

1. Arrival of card-based payments- Debit, Credit card late 1980s and 1990s
2. Introduction of Electronic Clearing Services (ECS) in late 1990s
3. Introduction of Electronic Fund Transfer (EFT) in early 2000s
4. Introduction of RTGS in March 2004
5. Introduction of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer in 2005/2006
6. CTS in 2007.

❖ Computerization in Banks:

Technology has charged the face of the Indian banking sector through computation while new private sector banks and foreign banks have an edge in this regard. Among the total number of public sector bank branches, 98.8 percent are fully computerized at end – March 2012 whereas all branches of SBI are fully computerized.

❖ Automated clearing House (ACH):

In clearing house, computers are employed to handle cheques. The nature of work involved in clearing operations is voluminous, repetitive, routine in nature. It is complex to clear, exchange and settle the transactions among several banks. Computers are deployed in clearing house to speed up the process and clearing the operations quickly and efficiently which is voluminous work. Automated clearinghouse (ACH) is an electronic network for financial transaction. ACH processes large number of debit and credit transactions in batches.

❖ National Automated clearinghouse Association (NACHA):

It helps to debit transfers for point-of-purchase (POP) check conversion. Both government and the commercial sectors use ACH payment. Business is also increasing using ACH to collect payment online from customers, rather than accepting credit or debit cards. Rules and regulations governing the ACH network are established by NACHA and Federal Reserve. The Federal Reserve banks collectively the nation's largest automated clearing house operator. FEDACH is the Federal Reserve's centralized application software used to process ACH transactions.

❖ Electronic Clearing Services (ECS):

ECS is a mode of electronic funds transfer from one bank account to another bank account using the services of a clearing house. This is used for bulk transfers from one account to many accounts or vice-versa.

Types of ECS:-

There are two types of ECS called ECS (credit) and ECS (debit).

1. **ECS (credit)**- is used for affording credit to a large number of beneficiaries by raising a single debit to an account, such as dividend, interest, salary payment pension etc.

2. **ECS (Debit)**- is used for raising debits to a number of accounts of consumers/account holders for crediting a particular institution e.g. payment to utility companies like telephone, electricity or charges such as house tax, water tax etc.

❖ National Electronic fund Transfer (NEFT):

National Electronic Fund Transfer (NEFT) is an online system for transferring funds of Indian Financial Institution (especially loans). This facility is used mainly to transfer funds below Rs.

2,00,000/- The NEFT system in India lives with effect from 21 November 2005. NEFT was sent to cover all banks which were participating in the special electronic funds transfer (NEFT) clearing. NEFT was made on the structured financial messaging solution (SFMS) platform. Public key infrastructure (PKI) technique used in NEFT for maintaining security.

❖ Electronic Funds Transfer (EFT):

Electronic Funds Transfer (EFT) is the electronic exchange or transfer of money from one account to another. RBI introduced EFT system presently covers all the branches of the 27 public sector banks and 55 scheduled commercial banks at the 15 centers.

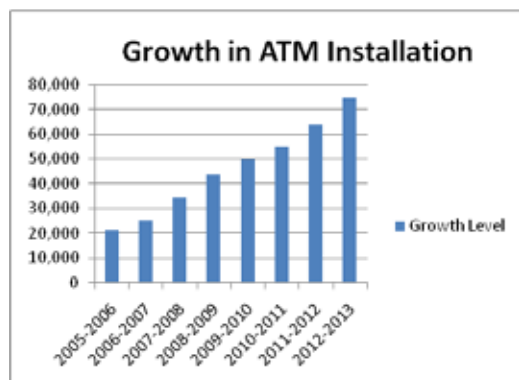
❖ Cards Transaction:

Debit card is a plastic card which provides an alternative payment method for cash when making transaction. Using debit card cardholder can see balance available on account. Bank provides debit card free of cost at the time of opening account. From 1st Jan 2011, RBI declared that for every transaction with debit card on ATM user has to enter password for every transaction.

❖ Automated Teller Machine (ATM):

Even though ATM originally developed for cash dispenses, now it includes many other bank related functions such as Cash withdraw, Paying routing bills fees and taxes, Printing bank statement, Funds transfer, Purchasing online products, Train tickets reservations, Products from shopping mall, Donating to charities, Cheque processing module, Adding pre-paid cell phone/mobile phone credit, Advertising channels for own or third party products and services, Pay premium. ATMs installed in the country at end-March 2009, new private sector banks had the largest share in off-site ATMs, while nationalized banks has the largest share in on-site ATMs. The use of electronic payment has witnessed manifold increase, partly reflecting increased adoption of technology. The growth of volume of ATMs indicates that customer most prefer ATMs for transactions. ATMs provide different kinds of services per customer.

Year	Growth Level
2005-2006	21,110
2006-2007	25,247
2007-2008	34,547
2008-2009	43,651
2009-2010	49,857
2010-2011	54,693
2011-2012	63,721
2012-2013	74,391



❖ Real time gross settlement (RTGS):

Real time means payment transaction is not subjected to any waiting period. In RTGS the transaction are settled as they are processed. Gross settlement means the transaction is settled on one to one basis without bunching or netting with any other transaction. RTGS is funds transfer system where transfer of money or securities takes place from one bank to another on a "realtime" and on "gross basis". Once processed, payment is final and irrevocable.

❖ Banknet:

BANKNET is an internet based communication network. It provides speed of financial transaction. BANKNET is set up in 1991 by the RBI, this backbone is meant to facilitate transfer of inter-bank (and inter-branch) messages within India by Public Sector banks who are members of this network.

❖ Society for Worldwide Inter-bank Financial Telecommunication (S.W.I.F.T):

The S.W.I.F.T provides reliable and expeditious telecommunication facilities for exchange of financial message all over the world. The gateway is in Mumbai and efforts are on to other cities through leased lines/public data network. The majority of international interbank messages use the SWIFT network. As of September Institute for Development and Research in Banking Technology (IDRBT): The main purpose of IDRBT is to adopt research and development as well as consultancy in the application of technology to the banking and financial sector in the country. Reserve Bank of India (RBI) established IDRBT in 1996. Structured Financial Messaging Solution (SFMS): Structured Financial Messaging Solution (SFMS) is helpful for inter-bank and intra-bank messaging. This messaging is useful for applications like Electronic Funds Transfer (EFT), Real Time Gross Settlement (RTGS), Delivery versus Payment (DVP), Centralized Funds Management System (CFMS). The SFMS was launched in India on December 14, 2001 by RBI.

❖ Mobile Banking:

Mobile banking (also known as M-Banking, m-banking, SMS Banking etc.) is a term used for performing balance checks, account transactions, payments, credit applications etc. via a mobile device such as a or Personal Digital Assistant (PDA).

❖ Demat Card:

The demat account has to be treated virtually like an account with the difference being that instead of actual cash there are shares in the account. A beneficiary account is an account opened by the investors or broker with a Depository Participants (DP) of his choice, to hold shares in dematerialized (demat) form and undertake scrip less trading. The investors must open a demat account with a DP. Opening a demat account.

CONCLUSION:

Use of technology in expanding banking is one of the key focus areas of banks. The banks in India are using Information Technology (IT) 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 increased transaction volume of banks of that comes with larger customer base. By designing and offering simple, safe and secure technology, banks reach at doorstep of customer with delight customer satisfaction.

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