# EMERGING TECHNOLOGICAL TRENDS IN INDIAN BANKING SECTOR

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**Abstract :** India's Banking sector has made rapid strides in reforming and aligning itself to the new competitive business enivornment. Indian Banking Industry is in the midst of the Information Technology Revolution and its changes has put forth the competition among the Banks world wide. The Information Technology has transformed the functioning of the businesses world wide by bridging the gaps in the terms of reach and the coverage of system. The Technological infrastructure has become an indispensable part of the reforms process in the banking system. The Financial reforms that were initiated in the early 90s and the globalisation and liberation measures brought in a new operating environment to the banks which involves services such as: anywhere banking,

Tele Banking, E- Banking, Internet Banking, Web- Banking, ATMs, etc. The banks in India have upgraded their capability to handle business volume which is made possible by implementing technology driven transaction banking systems. To attain the satisfaction and comfort of the constomers, the banks are trying hard to meet the upcoming demands of the customers by offering the innovative and attractive packaged technology based services to their customers. The Banks are trying to satisfy their customers wherever they are.

This paper is an attempt to study the Banking Sector. This paper aims at presenting the Technological Trends in Banking Sector. This Paper is also an attempt to trace the utility of Technologies in Banking with special reference to India.

Keywords: Banking and Technology

# **INTRODUCTION**

In 1969, a landmark was registered in the Indian Financial Sector, when 14 Banks were nationalized by the centre. It is a matter of great pride to mention that during the economic meltdown in 2008-09, our Indian Bank stood firm and remained uneffected. This shocked the whole world as few Banks of the developed nations crummbled down but Indian Bank stood strong and also witnessed many positive developments in this industry. To improve the regulation in this sector, several notable efforts were made by the Policy Makers i.e. The Reserve Bank of India, Ministry of Finance and other Government and financial sector agencies. It must be appreciated that the Banks are in a position to meet the demands of the customers and are also adding the economic development of the nation at large.India's Banking sector has made rapid strides in reforming and aligning itself to the new competitive business enivornment.

Technology has swiftly turned as a boon to the customers. With Technology the Bank branches becomes only one of the many channels that are now accessible to customers for performing routine banking transactions. The Information Technology has transformed the functioning of the businesses world wide. It has bridged the gaps in the terms of reach and the coverage of system. It also enabled better decision making based on the lastest and the accurate information. It has not only tried to reduce the cost but also tried its level best to improve the efficiency in the many new processes, products and services offered by the Banks and the IT centers. Banks that employ IT solutions are perceived to be futuristic and should be capable of satisfying the customers with their services.

#### **OBJECTIVES OF THE STUDY**

1. The main objective of the study is to understand Banking Sector

2. To understand the emerging technological trends in Banking Sector in India.

3. To trace the utility of technology in Banking with special reference to India.

#### **RESEARCH METHODOLOGY**

This research is based on the analysis of the secondary data and the research proposes to throw light on the emerging technology trends in Banking sector.

# EMERGING TECHNOLOGICAL TRENDS IN INDIAN BANKING SECTOR

The Indian Banking Industry is in the midst of the Information Technology Revolution and its changes has put forth the competition among the Banks world wide. It is observed that after the Liberalisation, the utmost need of the hour was that the banks should give top priority and preference to the customer service and should cater to their needs at all times. The Financial reforms that were initiated in the early 90s and the globalisation and liberation measures brought in a new operating environment to the banks which involves services such as: anywhere banking, Tele Banking, E- Banking, Internet Banking, Web- Banking, vitual Banking, Mobile Banking, credit Cards, Debit Cards, Automatic Teller Machines Facility, Electronic Clearing Services, Electronic Fund Transfer, SWIFT, Core Banking, Real-time Gross Settlements, Electronic Payment Services etc. To attain the satisfaction and comfort of the constomers, the banks are trying hard to meet the upcoming demands of the constomer by offering the innovative and attractive packaged technology based services to their customers.

The Banks in India are undergoing adoption of core banking system. It is worth to make a note that the transition from single channel banking to multi-channel banking has enabled tremendous customer convenience. It is also being appreciated worldwide for its services and convenience rendered to the customers of the bank. The banks in India have upgraded their capability to handle business volume which is made possible by implementing technology driven transaction banking systems. The banks try to prioritize the technological investments to meet the challenges that emerge out of the significant shifts in the business environment, economic volatility, and changing customer expectations. The upcoming paragraphs will throw light on the emerging technological trends as solution providers in future and some of them are already visible in the rendering of the services to the customers in banks:

**Internet Banking/ e-banking:** Internet has touched almost all the aspects of our lives and made the world's information available to man in just his finger tip with the help of the Internet. Internet Banking is also known as the e-banking. It is the latest in the series of the technological wonders, which uses the Internet for delivery of banking products and services in the recent years. It is rightly said by S. Uma, 'Today, when the customer is king and the service providers are rushing to pay obeisance to the king, financial service providers cannot be left behind. In their quest to differentiate their services and gain competitive advantage over their competitors, the financial service providers are trying to provide their services to the customers in the comfort of their homes. The Internet has emerged as a convenient channel for these service providers'.(Uma 2011,150) Internet banking enables its customers to get their inquiries or transactions processed online without any reference to the branch at any time, i.e. anywhere and anytime banking. Internet Banking allows the Banks to overcome the trade-off between content and reach, it also enables Banks to provide services to a much wider audience.

**Mobile Banking:** Mobile devices are commencing to conceal personal computers as the electronic channel for businesses and consumers. World's total population is mobile customers, who are located in budding markets, where they have no alternate than to depend on the electronic communication with the help of a mobile phone. Mobility enables the banks with admittance to novel and enhanced utilization of channels such as independent financial advisors, who are employed by banks to prospect for new clients. For employees, mobility means using location-aware mobile devices and applications, as well as being able to access remote data from a far to make key decisions quickly. The Telecom Technology proliferating in India at an immediate speed. A large part of the population is outside the banking coverage and in such cases; the mobile banking innovation appears to assure that is far more comprehensive than any single scheme for taking banking to all. These days when you link bank to your mobile phone, you get all the statements of the current balance available in your account and if any transaction is done without your knowledge it can give you a alert message by giving the correct details of the when and where your debit card was swapped. It also

enables you to check your account and do transactions through your mobile phone.

**Core Banking:** These days we often find most of the Banks using the core banking applications. CORE is an abbreviated form of "Centralized online real-time exchange". This portrays that the entire bank's branches access applications from centralised data centres which enables the deposited amount's reflection on the bank's servers and the customer can withdraw the deposited money from any of the bank's branch throughout the world.

**Electronic Payment of the Bills:** Electronic Payment of the Bills is also known as Electronic Bill Payment (EBP). It has important strategic dimensions, as it can become an integral part of a bank's portfolio of services and can be used to attract customers to the bank by making transactions more efficient and enabling customers to access their financial information more easily. Its rightly said that, 'Online, interactions allow use of such tools as e-CRM to create a more intimate relationship with the customer and promote and deliver other online products and services'. (Uma 2011, 153) In India ICICI has already started a portal named BillJunction.com and many other banks are trying to set up EBP by using the NET for the payment of utility bills. It is only possible if they get tied up with the Mobile companies and if we look around we see people paying their bills on mobiles and soon the days are going to come when the bills will be addressed to us on mobiles rather than on papers.

Delivery of Financial Products Online: Banks are enabling their customers to sit at home and do the shopping. It also at times enables them to have loans for their cars, houses, education, etc. They accept the Credit Cards and Debit Cards of the customers for the payment of the goods or products purchased online. The banks are setting up their own portals for shopping such as, the HDFC bank has set up a portal called easy2buy.com and ICICI has set up a Magiccart.com, which enables their customers to do shopping using their bank account. The ICICI Bank established in 1994 'is today the second largest bank in India and among the top 250 in the world. In less than a decade, the Bank has become a universal bank offering a well diversified portfolio of financial services'. (Mishra 2008, 8) The objective of the ICICI Bank is identical in the following quote: 'Our objective of creating a universal bank providing end-to-end financial services. clearly required solutions which were based on new-generation technology, offered end-to-end functionality and were highly flexible and scalable. Finacle offered all this and much more'. (Mishra 2008, 9) Automatic Teller Machines Facility (ATM Facility): Even though India is measured to be the back office of the world in terms of providing back-end tech services. 'ATM is a computerised telecommunications device that provides a financial institution's customers a method of financial transactions in a public space without the need for a human clerk or a bankteller.' (Dutta 2010, 25) Indian banks are neither outsourcing tech services nor there is a noteworthy plan to create a collective infrastructure, for instance, all the banks in India are creating their own ATM network whereas a common ATM network instead of shared basis for all the customers of the banks. ATMs have now become bank sceptic. In the same way, there are plenty scopes of building up of large data centres where smaller banks can use the facilities on rental basis to amalgamate their business in cost-effective manner and there are also too many services in banks that can be outsourced like transaction reconciliation, settlements, customer data integration, ATM operations, etc. Most of the people use their Debit Card/ATM Card to pay their food and purchase bills as well. 'Also, most ATMs enable card holders from the other banks to get their account balance and withdraw cash, even if the card is issued by a foreign bank.' (Dutta 2010, 25-26) Earlier the ATMs only provided the facilities of withdrawal of money but now with the advent of advancements in technologies the Banks also provides the facilities of requesting for cheque books and also cheques can be deposited in the ATM Branches. It also solved the problem of losing one's Debit Card by asking the for Pin Number at Shopping centres that earlier had just the swap scheme but now when it demands for the Pin Number the thieves can't access it even if he has the card.

**Brokerages Online:** Online Broking is emerging as another filed where traditional service providers are likely to face tough competition from the Dot Coms which have become a treat to the traditional Full-Service-Brokerages. We can see many banks have started getting tied up with the online brokerages and started the e-trading business, which will enable their customer to buy or sell the shares online. For instance, the HDFC Bank has tied up with Investsmart.com and is in a position to offer its services to all the customers of the brokerage, whereas ICICI Bank has already started its own ICICI Direct.com.

Communication Technology (SWIFT): SWIFT stands for Inter Bank Financial Telecommunication and it came into existence as a co-operative organisation by International Banks and Foreign Investors. It provides computer based network for multinational stage transmission amongst international banks in the member countries.

Electronic Fund Transfer (ETF): The Electronic Fund Transfer was introduced by the Reserve Bank of India for the Public Sector Bank. It was started with the vision to help the Public Sector Banks to cater to the needs of the customers by helping them with ease money transfer services from one branch to any bank.

Real- time Gross Settlement (RTGS): The RTGS Systems were launched in India in March 2004 and meets the needs of the people in Real-time basis as its name suggests. The RTGS systems are operated and sustained by the Reserve Bank of India. It is the fastest and efficient means of funds transfer among banks facilitating their financial operations.

### **DATA AND DECISIONS:**

With the help of the latest technologies the Employees will be able to make instant decisions. It will also enable the customers to get the right information about products services and billing anywhere, anytime and anyhow. There is much software getting utilized by the banks to provide proper and effective services to their customers. It is rightly said that in few years these trends in technologies will enable the world information and efficient services will be available at the "fingertips" of all customers of the Banks Interaction with the Customers is possible: As the workforce is becoming more glob-ally distributed, and remote working increases, collaboration becomes more of a necessity, forming an essential part of banks' workforce plan. With modernism at a best, more and new ideas will come from outside banks, such as, rapid growth in the use of partnership/collaboration tools such as video conference, co-browsing, etc, are being launched to smooth the progress of many new ways of interacting with customers.

## **CASH MANAGEMENT:**

Most of the Banks are in a position to satisfy the needs of the customers at anytime. They are managing the cash with ease and the credit for this goes to the latest technological trends in Banking. These technologies enable the entire customer to save their valuable time by enabling those services at home itself. Banks are taking efforts to migrate all their customers over browser-based solutions which will enable them to manage the cash.

## CONCLUSION

To conclude, Banks have come to apprehend that survival in the new e-economy depends on delivering some or all of their banking services on the Internet with the help of all the latest trends in Technology and will be able to truly reinforce their relationship with their customers at large. It is rightly marked "Information Technology is an inevitable resource to be considered to ensure an effective and competitive environment, which is adaptive and collaborative to change".(Esther, 2006: 120) The technological advancement in banking sector can be made effective only when a simple, flexible and modular approach is considered and implemented in Indian Banks.

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