



## Emerging Trends in Banking – Increasing Role of Information Technology.”

### KEYWORDS

Banking Innovation, Information Technology, Payment and Settlement System in Banks, E-Banking.

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### ABSTRACT

*Over the years, the Banking Sector in India has seen a number of changes. Most of the banks have begun to take an innovative approach towards banking with the objective of creating more values for customers and consequently the banks. E-Banking enables the people to carry out most of their banking transactions using a safe website which is operated by respective banks. Various Innovations in Banking and Financial Sectors are ECS, RTGS, NEFT, EFT, ATM, Retail Banking, Debit and Credit cards and many more. With the emergence of Privatisation, Globalisation and Liberalisation in India, Banks are focusing on Research and Development and applying various innovative ideas and technology. There is a close relationship between the development of banking sector and the new innovations in technology and Electronic data processing. The present article focuses on the benefits and challenges of changing Banking trends and to study the performance of existing technology based products and services being offered by Banks in India and their future prospects as well as the advancement of banking sector by information technology.*

### INTRODUCTION:

Banking environment has become highly competitive today. To be able to survive and grow in the changing market environment, banks are going for the latest technologies, which is being perceived as an enabling resource that can help in developing more flexible structure that can respond quickly to the dynamics of a fast changing market scenario. It is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business.

The Banking sector is undergoing the process of radical transformation due to excessive competition of foreign and private players and changes in tastes, preference and habits as well as expectations of customers for newer products. The traditional view of business which was the right product must be available in the right place at the right time is replaced now by a more dynamic and flexible concept that any product should be available at anytime and anywhere. Since the nationalisation of banks in 1969, the public sector banks or the nationalised banks have acquired a place of prominence and since then have been instrumental in ascertaining tremendous progress. The need to become highly customer focused has forced the slow moving public sector banks to adopt a fast track approach.

The Indian Banking has finally worked up to the competitive dynamics of new Indian market and its relevant issues concerning the various challenges of Globalisation. Banks that employ IT solutions are perceived to be futuristic and proactive players capable of meeting the multifarious requirements of large customer base. Indian Banking industry is going through a phase of metamorphosis and has witnessed changing strategies by different banks to adapt to the evolving competitive environment. This shift from traditional social banking to profit banking, implementation of prudential norms pertaining to Capital Adequacy norms, income recognition, asset classification, exposure norms etc. have given rise to increased competition and thrown greater challenges in banking sector. With these variations in the level of IT in Indian Banks, it is useful to take ac-

count of the trends in IT and also to see the comparative position with Indian Banks. The relevance of the status of Indian Banks with the perception when they get into IT up gradation is the main objective which strongly supports the inclusive growth in the Banking sector.

IT has helped the Banking industry to deal with the challenges the new economy poses. Technology has opened up new markets, new products, new services and efficient delivery channels for the banking industry. Few examples are such as Online Banking, Mobile Banking and Internet Banking. The progress of technology and development of worldwide have significantly reduced the cost of global fund transfer. The IT revolution has set the stage for unprecedented increase in financial activity across the globe. It is IT which enables the banks in meeting such high expectations of the customers who are more demanding and also tech-savvy compared to their counterparts of the yesteryears.

### OBJECTIVE OF THE STUDY:

The main Objective of this research paper is to review the implementation of IT in Banking Industry. Technological innovations have enabled the industry to open up new delivery channels, seeking the help of IT to deal with the challenges that a new economy poses. The Objectives of the present study are:

- 1) To study the rapid advancement occurring in the banking sector.
- 2) To analyse the performance of existing technology based products offered by the banks in India and its future prospects.

### METHODOLOGY:

The present review paper is based on the Secondary data. It analyses the available literature on Banking technology and various existing and upcoming innovative products offered by banks in India. The Secondary data pertaining to the study was obtained from the various journals, books, newspapers and websites of the concerned Banks.

**THEORITICAL FRAMEWORK:**

Banking sector plays a very important and crucial role in the development of Indian economy. With the use of technology, there had been an increase in penetration, productivity and efficiency of banking practices. It has not only increased the cost effectiveness but also has helped in making small value transactions feasible.

**Bhosle and Sawant** in research paper, "Technological Developments in Indian Banking sector" discussed the role and concept of banking sector in the development of Indian economy. The paper highlights that the technology allows taking place faster and offering unparalleled convenience through various delivery channels like MICR, CTS, RTGS, and NEFT etc.

Many researchers have given their views on the innovation in the services. **Avasthi and Sharma (2000)** in their study have analyzed that advances in technology are set to change the face of banking business. Technology has transformed the delivery channels by banks in retail banking. The study has also explored the challenges that banking industry and its regulator faces. **Arora (2003)** in his study highlighted the significance of bank transformation. Technology has a definite role in facilitating transactions in the banking sector and the impact of technology implementation has resulted in the introduction of new products and services by various banks in India.

**Mangnale, Chavan and Randive**, in their research paper "E-CRM in Indian Banking Sector, Golden Research Thoughts" analyzed in their study that technology, people and customer are the three elements on which depends the whole success of banking in the fast changing economic environment. This paper analyzes the concept of e-CRM in Indian banks from its various dimensions covering specifically the needs, process, present status and future prospects.

KPMG, "Technology enabled transformation in Banking", The Economic Times Banking Technology, Conclave 2011, this article has concluded that banking will be transformed by new technology by 2015. customer friendly products, delivery channel, easy and accessible services and competitive pricing would be driving forces and technology shall play a dominant role in all these. Models using mobile devices and efficient payment systems will make banking services widely available 24 x 7

The various technological platforms provided by the banks to its customers bring greater flexibility and operational convenience by providing computerised banking environment, speedier transactions, accurate statements, ATMs offering 24 hours banking, Mobile banking, Internet banking; anywhere and at anytime. Customer terminals are proved to be a milestone in the development and growth of banks.

**TECHNOLOGY AND INNOVATIONS IN BANKING:**

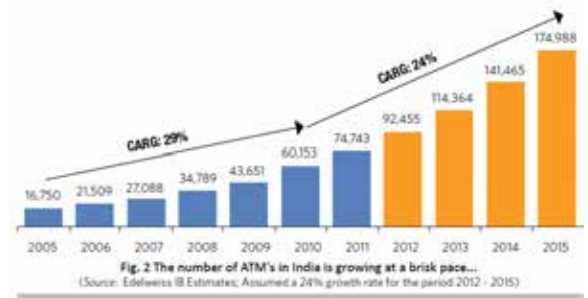
Banking environment has become highly competitive today. Developments in the field inclusive of information technology strongly supports the growth and inclusiveness of the banking sector by facilitating inclusive economic growth. IT improves the front end operations with back end operations and helps in bringing down the transaction costs for the customers. Major events in the field of IT in banking sector in India are:

- Introduction of ATMs in 1987.

- Card based system in late 1980's and 90's.
- Electronic Clearing Services (ECS) in early 1995
- Electronic Funds Transfer (EFT) in early 2000.
- Introduction of RTGS in 2004.
- National Electronic Fund Transfer (NEFT) in 2005 by replacing EFT.
- (CTS) in the year 2008.
- The Payment and Settlement Systems Act passed in December 2007.

**AUTOMATED TELLER MACHINES**

ATMs were introduced to the Indian Banking industry during 1987 by HSBC Bank in Mumbai. With the advent of ATMs, banks are able to serve the customers outside the banking halls. Now the ATMs are equipped with modern technologies and facilitate various features for its customers which includes Bill payments, ticket booking, Mobile recharges, Ubiquitous multifunction, ATMs biometric, Multilingual ATMs and ATM network switches. The number of ATMs in India is growing at a brisk pace. ATM segment witnessed a growth of 24% for the period from 2012-2015. According to available data the number of ATMs which were 92,455 in 2012 is increased to 1,74,988 in year 2015, which is a good sign for whole industry.



Source: Edelweiss IB Estimates

**CARD BASED SYSTEM**

Among the Card based delivery mechanisms for various banking services, are Debit Cards and Credit Cards. The amount of Debit Card transactions increased rapidly which was Rs.469.1 million in year 2012-2013 and Rs.808.1 million in year 2014-2015, whereas the amount of Credit Card transactions was Rs.396.6 million in year 2012-2013 and Rs. 615.1 million in the year 2014-2015.

ITEMS	2012-2013	2013-2014	2014-2015
DEBIT CARD	469.1	619.1	808.1
CREDIT CARD	396.6	509.1	615.1

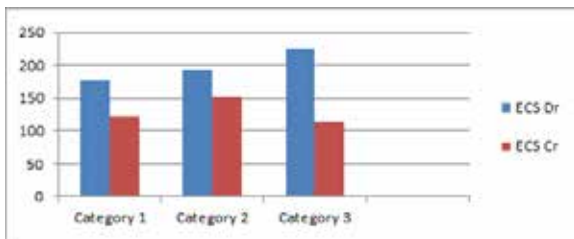
Source : rbi.org.in

**ELECTRONIC CLEARING SERVICES (ECS)**

ECS introduced by RBI in 1995, akin to Automated Clearing house system. ECS has two variants i.e. ECS Debit clearing services and Credit clearing services. ECS Debit operates on the principles of single credit multiple debits and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collection of principal and interest repayments. ECS Credit handles bulk and repetitive payment requirements of corporate and other institutions and is used for transactions like payment of salary, dividend, pension,

interest etc.

ECS Debit amount is increased from Rs. 176.5 million to Rs. 226 million from 2012-2013 to 2014-2015 and ECS Credit amount is decreased from Rs. 122.2 million to Rs. 115.3 from 2012-2013 to 2014-2015.



Source: rbi.org.in

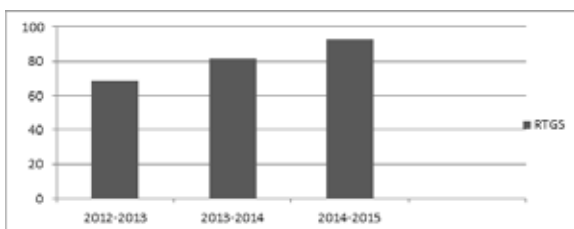
### ELECTRONIC FUND TRANSFER

The EFT system enables an account holder of a bank to electronically transfer funds to another account holder with any other bank. The most widely used EFT programs is Direct deposits, in which payroll is deposited straight into an employees bank account, although it transfer the funds through an electronic terminal including Credit card, ATM and Point of Sales (POS) transactions.

### REAL TIME GROSS SETTLEMENTS (RTGS)

The introduction of RTGS in 2004 was instrumental in the development of infrastructure for Systematically Important Payment System (SIPS) and it settles all interbank payments and customer transactions above 2 Lakhs. RTGS was launched by RBI, which enabled a real time settlement on a gross basis. To ensure that RTGS system is used only for large value transactions and retail transactions take an alternate channel of EFT.

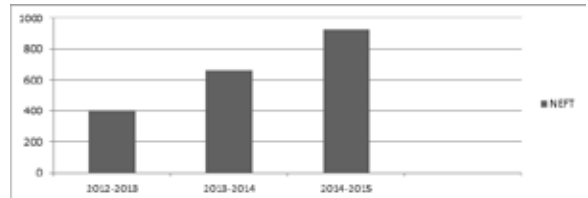
The reach and utilisation of RTGS has witnessed a sustainable increase since its introduction. In the year 2012-2013 to 2014-2015 transactions related to customer remittances have raised from Rs.68.5 million to Rs.92.8 million. This shows the increasing popularity of RTGS in Indian banking industry.



### NATIONAL ELECTRONIC FUND TRANSFER (NEFT)

New and improved variant of EFT was implemented in November 2005 to facilitate one to one fund transfer requirement of individuals as well as corporate. It uses the Structured Financial Messaging Solution (SFMS) for EFT message creation and transmission from the branch to the banks gateway and to the NEFT centre, so it can transfer the funds with more security. With the SFMS facility, branches can participate in both RTGS and NEFT System. Using the NEFT infrastructure, a one-way remittance facility from India to Nepal has also been implemented by the RBI since 15<sup>th</sup> May, 2008. Overall EFT and NEFT based clearing increased from Rs.394.1 million to Rs.927.6 million in year 2012-2013 to 2014-2015.

Source: rbi.org.in



### INNOVATIVE PRODUCTS AND POLICIES OF BANKS

- "My Saving Rewards", the programme allow customers to accumulate reward points on a host of savings account transactions such as bill pay, online shopping, EMI payment etc.
- 24x7 fully electronic branches are opened to undertake real time transactions by the customer.
- "E-Locker", an online service for storing important documents for privilege banking customers.
- UID authentication for Aadhaar based payments and enabling corporate to pay taxes online.
- Cash Deposit Machines (CDMs) are installed for cash deposits by customers at these machines by using their ATM cum Debit card.
- E-trade SBI, a web based portal launched in March 2011 to access trade finance services with speed and efficiency.
- To facilitate the Electronic Benefit Transfer (EBT) scheme for routing MGNREGA where all scheduled commercial banks were instructed to open Aadhaar enabled bank accounts of all the beneficiaries.
- Expansion of branches in remote locations either through a bank branch or Business Correspondence (BC) or other modes so that every eligible person should have a bank account.
- Know Your Customer (KYC) norms simplified to facilitate financial inclusion and customer services.
- The RBI is replacing the existing RTGS with a new NG-RTGS system which includes which includes few extra features like advanced liquidity management facility, Extensible Mark up Language (XML) based messaging system etc.
- Recently launched scheme of government "Jan Dhan Yojana" with the motive that every family must have a bank account
- Today, the banks installed Solar ATMs, windmills to fulfil their own energy needs, paperless banking etc. SBI is the largest deployer of Solar ATMs.

### CONCLUSION

Today, Information Technology is used in two different avenues in banking- Communication and Business Process Re-engineering (BPR). It is reported that about 250 million internet users are there in India, which is among the top three in the world and this number is set to grow to 350 million by end of 2015. The E-banking, Mobile banking, Net banking and ATMs facility has gained the success among the customers. Today's generation is showing a keen interest in adopting all such technology enabled banking facility. Payment settlement systems like RTGS, NEFT, EFT, ECS, and CTS have proved to be successful among the customers using these facilities. Therefore, the IT revolution has set the stage for overcoming the challenges the new economy poses keeping in view the unprecedented increase in financial activity across the world.

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