



## Paperless Regime- "E -Banking In India"

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**ABSTRACT**

*With E-Banking, banking services becoming cash less and paperless. In Banking, technological revolution is very high development around the world. To provide access to banking services in remote villages, potential technology needs to be explored. A number of services are being offered through electronic banking there are some services can be measured through ATM services offered by the banks. The technology infrastructure in terms of computerization is still in progress in most of the Indian banks. The study takes into consideration to know the extent of e banking services in India.*

**KEYWORDS: E-BANKING, TECHNOLOGY, NEFT, ATMS**

**Introduction:**

Indian banking has come a long way since India embarked on the reforms path about a decade-and a-half ago in 1991-92. The reforms have unleashed tremendous change in the banking sector. Today, Indian banks are as technology-savvy as their counterparts in developed countries. On the networking front, branch banking – the traditional forte, coupled with ATM networks. The competitive forces have led to the emergence of Internet and mobile banking too, to let banks attract and retain customers.

**Objective of the study:**

Over the past few years, the banking sector witnessed a large increase in the use of Information Technology based delivery channels.

- 1) To know the various E- services provided by banks.
- 2) To understand the concepts of E-services.
- 3) To know the technological developments in Scheduled commercial banks.

**Key Milestones in Banking Technology:**

- 1) Arrival of card bases payments-Debit, Credit card late 1980s and 1990s
- 2) Introduction of Electronic Clearing Services (ECS) in late 1990.
- 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) Adoption of Cheque Truncation System (CTS) in 2007.

**Electronic Clearing Service:**

Electronic Clearing Service a mode of electronic funds transfer from one bank account to another bank account using the services of a Clearing House. This is normally for bulk transfers from one account to many accounts or vice-versa. This can be used both for making payments like distribution of dividend, interest, salary, pension, etc. by institutions or for collection of amounts for purposes such as payments to utility companies like telephone, electricity, or charges such as house tax, water tax, etc or for loan installments of financial institutions/banks or regular investments of persons.

**MICR Code:**

MICR is an acronym for Magnetic Ink Character Recognition. The MICR Code is a numeric code that uniquely identifies a bank-branch participating in the ECS Credit scheme. This is a 9 digit code to identify the location of the bank branch; the first 3 characters represent the city, the next 3 the bank and the last 3 the branch. The MICR Code allotted to a bank branch is printed on the MICR band of cheques issued by bank branches.

**National Electronic Funds Transfer (NEFT):** National Electron-

ic Funds Transfer (NEFT) is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporates can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in the Scheme.

**Operational system of NEFT system:** Under NEFT system following steps followed.

Step-1 : An individual / firm / corporate intending to originate transfer of funds through NEFT has to fill an application form providing details of the beneficiary (like name of the beneficiary, name of the bank branch where the beneficiary has an account, IFSC of the beneficiary bank branch, account type and account number) and the amount to be remitted. The application form will be available at the originating bank branch. The remitter authorizes his/her bank branch to debit his account and remit the specified amount to the beneficiary. Customers enjoying net banking facility offered by their bankers can also initiate the funds transfer request online. Some banks offer the NEFT facility even through the ATMs. Walk-in customers will, however, have to give their contact details (complete address and telephone number, etc.) to the branch. This will help the branch to refund the money to the customer in case credit could not be afforded to the beneficiary's bank account or the transaction is rejected / returned for any reason.

Step-2 : The originating bank branch prepares a message and sends the message to its pooling centre (also called the NEFT Service Centre).

Step-3 : The pooling centre forwards the message to the NEFT Clearing Centre (operated by National Clearing Cell, Reserve Bank of India, Mumbai) to be included for the next available batch.

Step-4 : The Clearing Centre sorts the funds transfer transactions destination bank-wise and prepares accounting entries to receive funds from the originating banks (debit) and give the funds to the destination banks (credit). Thereafter, bank-wise remittance messages are forwarded to the destination banks through their pooling centre (NEFT Service Centre).

Step-5 : The destination banks receive the inward remittance messages from the Clearing Centre and pass on the credit to the beneficiary customers' accounts.

**IFSC:** IFSC or Indian Financial System Code is an alpha-numeric code that uniquely identifies a bank-branch participating in the NEFT system. This is an 11 digit code with the first 4 alpha characters representing the bank, and the last 6 characters representing the branch. The 5th character is 0 (zero). IFSC is used by the NEFT system to identify the originating / destination banks / branches and also to route the messages appropriately to the concerned banks / branches.

**Pre-requisites for originating a NEFT transaction:**

Following are the pre-requisites for putting through a funds transfer transaction using NEFT –

- Originating and destination bank branches should be part of the NEFT network
- Beneficiary details such as beneficiary name, account number and account type, name and IFSC of the beneficiary bank branch should be available with the remitter
- For net banking customers, some banks provide the facility to automatically pop-up the IFSC once name of the destination bank and branch is highlighted / chosen / indicated / keyed in.

**Benefits of using NEFT System:** The following are the benefits of using NEFT System

- The remitter need not send the physical cheque or Demand Draft to the beneficiary.
- The beneficiary need not visit his / her bank for depositing the paper instruments.
- The beneficiary need not be apprehensive of loss / theft of physical instruments or the likelihood of fraudulent encashment thereof.
- Cost effective.
- Credit confirmation of the remittances sent by SMS or email.
- Remitter can initiate the remittances from his home / place of work using the internet banking also.
- Near real time transfer of the funds to the beneficiary account in a secure manner.

**RTGS System:** The acronym 'RTGS' stands for Real Time Gross Settlement, which can be defined as the continuous (real-time) settlement of funds transfers individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time. 'Gross Settlement' means the settlement of funds transfer instructions occurs individually (on an instruction by instruction basis). Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable.

**Difference RTGS between NEFT:** NEFT is an electronic fund transfer system that operates on a Deferred Net Settlement (DNS) basis which settles transactions in batches. In DNS, the settlement takes place with all transactions received till the particular cut-off time. Currently, NEFT operates in hourly batches - there are eleven settlements from 9 am to 7 pm on week days and five settlements from 9 am to 1 pm on Saturdays. Any transaction initiated after a designated settlement time would have to wait till the next designated settlement time. Contrary to this, in the RTGS transactions are processed continuously throughout the RTGS business hours.

**Cheque Truncation System:** Truncation is the process of stopping the flow of the physical cheque issued by a drawer to the drawee branch. The physical instrument will be truncated at some point enroute 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 with the implementation of cheque truncation, the need to move the physical instruments across branches would not be required, except in exceptional circumstances. This would effectively reduce the time required for payment of cheques, the associated cost of transit and delay in processing, etc., thus speeding up the process of collection or realization of the cheques. Cheque Truncation speeds up collection of cheques and therefore enhances customer service, reduces the scope for clearing related frauds, minimizes cost of collection of cheques, reduces reconciliation problems, eliminates logistics problems.

**MOBILE BANKING:** Mobile banking means the using of a mobile phone to offer banking services. Banks have introduced two different products in mobile banking. One is a personal/retail banking product and the other is a product to promote financial inclusion. As a personal banking product it is offered to every savings/current account holder and provides anytime anywhere banking. The mobile banking initiatives were started by foreign and private banks followed by public sector banks.

**Automatic Teller Machine:** An automated or Automatic Teller Ma-

chine (ATM), is a computerized telecommunications device that enables the clients of a financial institution to perform financial transactions without the need for a cashier, human clerk or bank teller. ATMs are known by various other names including ATM machine, automated banking machine and various regional variants derived from trademarks on ATM systems held by particular banks.

On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smart card with a chip that contains a unique card number and some security information such as an expiration date or CVVC (CVV). Authentication is provided by the customer entering a personal identification number (PIN). Using an ATM, customers can access their bank accounts in order to make cash withdrawals, debit card cash advances, and check their account balances as well as purchase pre-paid mobile phone credit.

**Technological Developments in Scheduled commercial banks:** In traditional banking system customer required to visit bank personally. It takes more time of the customer as well as the service provider bank and increasing the cost complexity and reducing the profit. Technological developments has reduced the requirement of staff at branch level, hence reduces salaries of the staff. Technology, apart from increasing the efficiency of the banking services, is expected to boost the ongoing process of financial inclusion which emphasized by Reserve Bank of India. Increase in number of off-site ATMs in various locations facilitated banking outreach in remote areas.

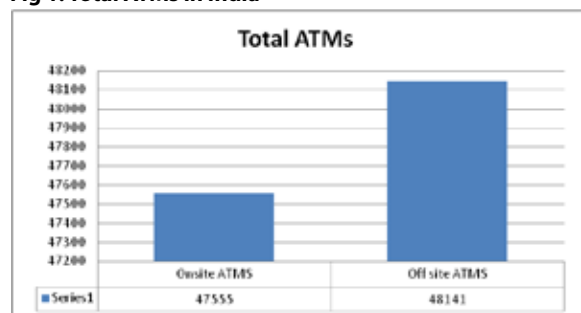
**Statistical data of total number of ATMs:** The following table shows the statistical data of ATMs were deployed by public sector banks as at end-March 2012.

**Table 1: Number of ATMs as on 31<sup>st</sup> March 2012.**

	Bank Group	On site ATMs	Off Site ATMs	Total No. of ATMs
1	Public Sector banks	34,012	24,181	58,193
1.1	Nationalized banks	18,277	12,773	31,050
1.2	SBI Group	15,735	11,408	27,143
2	Private Sector Banks	13,249	22,830	36,079
2.1	Old Private Sector Banks	3,342	2,429	5,771
2.2	New Private Sector Banks	9,907	20,401	30,308
3	Foreign Banks	284	1,130	1,414
	Total(1+2+3)	47,545	48,141	95,686

Source: Report on Trend Progress of Banking in India 2011-12.

**Fig 1: Total ATMs in India**



From the above figure it shows that Bank are having more off site ATMs than the onsite ATMs. Out of total 95,686 ATMs Offsite ATMs are 48,141.

**Onsite and offsite ATMs:** On site ATMs that are set up in the premises where there is a bank branch so that both the physical branch and the ATM can be used. This is known as being on site and this can be used for several purposes. Many people can use this to avoid the lines that are present in the branch and hence save on the time required to complete their transactions. Offsite ATMs are the machines that are set up on a standalone basis. This means that the bank has a place where there is only an ATM machine then this becomes an offsite ATM. This is done to ensure that the bank reaches out to more geographical areas and that people are able to use its services even when there is no bank branch in that area such as bus stops, airport, railway station, shopping

centres , etc.

**Payment system from cash to cashless:** In India, cash continues to be the pre-dominant mode of payment. The policy initiatives and the regulatory stance of the Reserve Bank has continued to focus on increasing the acceptance and penetration of safe, secure and efficient non-cash payment modes comprising cheques, credit/debit cards, and transactions through ECS/RTGS/NEFT, over the years.

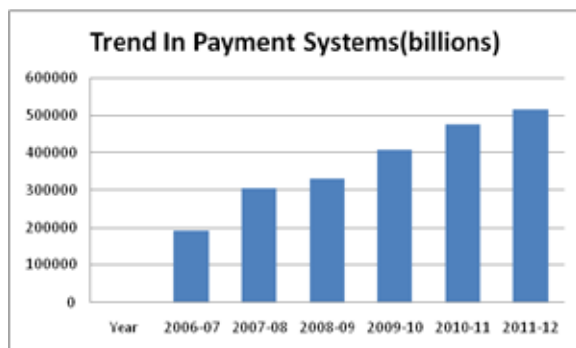
**Table 2: Trend in Payment Systems (in billions)**

Year	Non Cash Retail Payments*	Non Cash Retail Payments to GDP	Currency in circulation as percentage of GDP
2006-07	1,94,459	4.53	11.77
2007-08	3,05,382	6.12	11.85
2008-09	3,29,736	5.91	12.38
2009-10	4,06,116	6.29	12.38
2010-11	4,76,291	6.21	12.36
2011-12	5,16,332	5.83	12.04

\*Cheques, ECS, NEFT, Cards ,RTGS Customer transactions.

Source: Report on Trend Progress of Banking In India 2011-12.

**Fig 2: Trends in Payments system**



From the above table and figure it may be revealed the non cash retail payments increased from 1, 94,459 in 2006-07 to 5,16,332 in 2011-12.

**Conclusion:**

Use of Information technology is today's basic requirement in the banks. Efficient use of technology has facilitates accurate and timely management of transactions. Banks are benefiting from cost optimism, efficient customer service, speed and accuracy transactions and overall flow of communication. Technology has enabled banks to transform customer experience, expand channels, innovate non cash payment mechanisms, and more operationally efficient. The adoption of technology helps to banks to re-engineer processes, network branches and introduce alternate delivery channels such as internet banking, phone banking and mobile banking, data warehousing and data mining, and customer relationship management.

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