All about Payment and Settlement Systems in India

A country needs money supply for economic activity to carry out trade and commerce to quench demand and supply of goods and services. For such exchanges to continue payments of money and settlements of dues and charges need to be carried out. The better, more convenient and reliable the payment and settlement of a country or an economy is, the better is the economic efficiency of that country.

The payment and settlement system comprises of various arrangements that is used to systematically, efficiently and securely transfer money/currency, cheques, demand drafts, and money through various electronic channels. In most countries the Central Bank is generally the regulatory authority and is responsible for development of the National Payment System.

In India, Reserve Bank of India is the regulatory authority and is in charge of driving the development of our National Payment and Settlement System. The highest policy making body on payment System in our country is the **Board for Regulation and Supervision of Payment and Settlement Systems (BPSS)**, a sub-committee of RBI and the regulation is done in accordance with the **Payment and Settlement Systems Act, 2007 (PSS Act)**.

The Reserve Bank of India continually strives towards providing more secure, convenient and efficient payments systems in the country. RBI continuously works towards upgradation of the existing systems and pushes for innovation and development new ones, thus slowly and steadily revamping the payment and settlement facilities in India.

Types of Payment and Settlement Systems in India:

- **Paper Based Payment Systems--** Cheques, Drafts, etc.
- **Electronic Payment Systems--** Gross Settlement System and Net Settlement Systems.
- ***Gross Settlement System*--** Real Time Gross Settlement (RTGS)
- ***Net Settlement Systems*--**
- National Electronic Fund Transfer (NEFT)
- National Electronic Clearing Service (NECS Credit)
- National Electronic Clearing Service (NECS Debit)
- Credit cards and Debit cards
- Indo-Nepal Remittance Facility Scheme
- Immediate Payment Service (IMPS)
- **Other Payment System--**

- Mobile Banking System
- Automatic Teller Machines (ATMs)
- Point of Sale (POS) Terminals
- Online Transactions

Paper Based Systems

The usage Paper Based systems/instruments such as cheques, demand drafts, etc. account for almost 60% of the total non-cash transaction in India by volume. But when compared in terms of value, it only accounts for around 11%. The share of paper based transactions has steadily been decreasing with time, whereas the electronic and other modes keep gaining popularity due to their obvious advantages. The Indian government (like most other governments in developed and developing nations) is also promoting online and electronic means of payments in favour of paper based ones, as the process there is conducted in real time, easy to track and there is very little delay.

Cheques

A cheque is a negotiable instrument used for payment and settlements in India, and is governed by the provisions of Negotiable Instruments Act, 1881. It is an unconditional order, which is drawn on a specific bank, signed by the drawer (person who draws the cheque to pay someone), directing the banker to pay the specified amount on demand only to or to the order of a certain person or to the bearer of the cheque.

There are three parties involved to a cheque:

1. ***Drawer*** — the person who holds an account in a certain bank and draws a cheque to make a payment.
2. ***Drawee*** — the person upon whom the cheque has been drawn i.e. the drawee is the bank or simply the issuing authority, and is the party whom the drawer orders to pay the said amount, to the person named in the cheque, or to the bearer.
3. ***Payee*** — the party or the person who presents the cheque for receiving the payment and is liable to be paid by the bank. The cheque is drawn in his favour and his name is mentioned on the cheque. A payee can also be a bearer of the cheque (person other than one mentioned on the cheque) only if the cheque is issued as a bearer cheque.

Use of cheques:

- It is a very convenient instrument for paying and receiving money.
- Payment can be made only to a particular person or to a bearer by making it "Account payee" or "Bearer" cheques respectively.
- Cheque is a very liquid instrument and is considered near money and hence is highly endorsable for payments and settlements.

- It is a very secure mode of payment.
- Records of payments made by cheques are automatically maintained in the banker's books.

A cheque can be dishonoured (i.e. the payment is not done) for myriad reasons such as insufficient funds in the drawer's account, mismatch of signature, overwriting, cheque is more than 3 months old, etc.

Bank Draft

Bank Draft is also a negotiable instrument governed by the provisions of Negotiable Instruments Act, 1881. It is a facility offered by the bank to its customers for sending money to different destinations. This facility is offered to account holders only.

To send money to a specific destination a customer has to fill up a specific form provided by the bank. Name of the person/party to whom the amount is to be sent, the amount payable and the address of the destination must be declared in the form. The bank then issues a Draft to the customer after debiting the bank charges.

This bank draft is then sent by the payer to the person/party to whom it is payable. The receiver then deposits the draft in his bank and the bank will then credit the amount in his account. It is a time consuming process of transferring money and the charges are also high.

Bankers Cheque

Bankers Cheque or Demand Draft is a negotiable instrument governed by the provisions of Negotiable Instruments Act, 1881 that is used to effect transfer of money. It is called *Banker's Cheque* since it is a pay order which is payable on demand, issued by the bank itself (drawn by one office of a bank upon another office of the same bank) withdrawing the amount from the payer's account and it cannot bounce. A bank renders itself liable for damages, if it fails to honour a bankers cheque. The bank is also liable in case of omission of signatures or wrong signatures.

The bank issues the bankers cheque in the name of the individual or the party to whom the customer wants to make the payment. By prior arrangement, the paying bank could also be a different bank. A certain amount of commission is charged upon the customer by the bank for this service. It is generally used for local payments.

Electronic Payment Systems

RBI took an initiative in the early 90's and focused on technology-based solutions for the improvement of the payment and settlement system in India. It does its best to encourage alternative and modern system of payments, thus bring security and efficiency to the payments system and making the whole process easier for banks.

The successful growth of Indian banking sector calls for innovation and adoption of electronic payments to enhance the banking system. Introduction of e-payments in India has brought in an era of unprecedented growth in the banking sector.

RBI is playing a decisive role in mainstreaming e-payments in India by making it compulsory for the banks to route their high value transactions through Real Time Gross Settlement (RTGS) and also by introducing National Electronic Funds Transfer (NEFT) and National Electronic Clearing Services (NECS), thus encouraging individuals and businesses to switch to electronic methods of payment. E-payments in India have been growing at over 60% for the last few years.

Real Time Gross Settlement (RTGS)

RTGS is a fund transfer mechanism is which the transfer of money/funds takes place from one financial institution to another on a 'Real Time' and on 'Gross' basis. It is the fastest possible transfer mechanism for payments and settlements through the banking channel.

Real Time Settlements mean that payment transaction is not subjected to any time delay and is done instantly. Settlement of transaction occurs as soon as they are processed.

Gross Settlement means the transactions are settled on one to one basis. No transaction is bunched with any other transaction and settlements of funds transfer instructions happen individually.

The money/fund transfer takes place in the books of RBI, and so once processed the payment is final and irrevocable. The charges for RTGS vary from bank to bank. Upper limit for the fees which can be charged by all banks has been set by RBI.

Banks participating in the functions of both remitting and receiving must have CBS (core banking solutions) in place to enter into RTGS transactions. An *Indian Financial System Code (IFSC*) is assigned to all Core Banking enabled banks and branches. IFSC is an eleven digit alphanumeric code which is unique to each branch of bank. The identity of the bank is indicated by the *first four letters*. The remaining *seven numerals* indicate a single branch. This code is also provided on cheque books, since it is required for transactions along with the account number of the recipient.

RTGS is a large value fund transfer system -- minimum value of transaction should be □2,00,000. It is used by financial intermediaries to settle interbank transfers pertaining to their own accounts or their customers. RTGS transfer system has specific timings. Customers can use the RTGS facility between 9 AM to 4.30 PM on weekdays and from 9 AM to 2 PM on Saturday. The timings may vary depending on the bank branch. RBI had introduced Time Varying Charges in October 2011. Primary purpose of RTGS is to facilitate transactions that need immediate settlement.

National Electronic Fund Transfer (NEFT)

NEFT is one of the most prominent electronic funds transfer system in India started in November 2005. NEFT facility used to transfer funds from one financial institution to other in India enabling them to transfer funds easily and securely via electronic messages on a one-to-one basis.

Unlike RTGS which transfers funds on a Gross Settlement basis, NEFT does it on a *Net Settlement* or *Net Transfer* basis executed in hourly batches and hence results in a time lag.

RBI has explained NEFT scheme as "National Electronic 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."

NEFT system has no minimum or maximum fund transfer limit. Persons with no banks accounts can also use this facility. Such a person can deposit cash at an NEFT-enabled branch with instructions with instructions to transfer the funds using the NEFT mechanism. To facilitate walk-in customers in transferring of cash to the intended beneficiary, a separate Transaction Code (No. 50) has been allotted in the NEFT system.

National Electronic Clearing Service (NECS Credit)

To handle bulk and repetitive payment and settlement requirements such as salary, interest, commissions, dividend payments of corporates and other institutions, RBI introduced the ECS (Credit) scheme in the 1990s. Such payments are done on a timely-basis like a year, half a year, etc. In the ECS (Credit) scheme the customer accounts are credited on the specified value date. Presently this facility is available at all major cities in the country. It is also known as “Credit-push” facility or one-to-many facility.

RBI launched a new service in 2008 known as ***National Electronic Clearing Service (NECS)***. In the NECS (Credit) scheme the customer accounts are credited on the specified value date against a single debit from the account of the sponsor bank.

National Electronic Clearing Services (NECS Debit)

NECS Debit facility is also known as "Debit-pull" facility. This method is used mainly to facilitate payments of small value from entities/individuals to big organizations or companies. RBI introduced this scheme to provide a faster method to facilitate periodic (or routine) and repetitive collections of utility companies, by ‘mandating’ the banks to debit their accounts (debit the payment/bill/investment from the customer's bank account) and pass on the money to the companies.

NECS facilitates routine payments by individuals/entities such as telephone bills, electricity bills, card and online payments and payment of insurance premiums.

Credit cards and Debit cards

Transactions using Plastic Money in India is one of the fastest growing segments. The pace at which the general public is embracing Credit Cards and Debit Cards as a medium of payment is phenomenal, and is growing at a very fast pace. This payment mechanism facilitates customers by easing the process of making many payments through their card, such as shopping, paying their bills, and transferring funds.

***Credit Card*—** it is a form of Plastic Money which allows the cardholder to pay for goods and services. The card issuing authority (usually a bank) creates a revolving account I the name of the cardholder and grants him a line of credit, from which the cardholder can borrow money for payments or cash advances. This requires the cardholder to repay the balance in full each month

***Debit Card*—** it deducts money directly from a consumer's account to pay for a purchase. Unlike credit cards, they do not allow the user to go into debt (i.e. the customer can only withdraw money up to the limit of his holdings in his account), except perhaps for small negative balances that might be incurred if the account holder has signed up for overdraft coverage.

However, debit cards usually have daily withdrawal/purchase limits. It may not be possible to make very large purchases with a debit card.

Debit cards entered India in 1998. Ever since then their numbers have been growing. Nearly 3/4th of the total number of cards in circulation is debit cards. Although the credit card entered Indian market a decade before debit cards, they have registered a much slower rate of growth. Though in the last few years, the usage of credit cards has grown impressively.

A more recent innovation pertaining to the field of plastic money is *co-branded credit cards*. These cards provide a combination of many services into a single card. These cards are issued by banks when they enter into business partnerships with retail stores, telecom companies, airlines, etc. Such partnerships increase the utility of these cards, and they provide much more added facilities over simple debit or credit cards. Apart from using them at ATM's they can also be used at Point of Sale (POS) terminals and while making online payments.

Indo-Nepal Remittance Facility Scheme

To facilitate transfer of money among people of India and Nepal, the Indo-Nepal Remittance Facility, a cross-border remittance facility was set up to transfer funds from India to Nepal, enabled under the NEFT Scheme.

The facility was launched to provide a safe and cost-efficient mechanism to the large migrant workers of Nepalese origin in India, to remit money back to their families in Nepal. A remitter can transfer funds up to the limit of ₹50,000 from any of the NEFT-enabled bank branches in India. The funds would be received by the beneficiary in Nepalese Rupee.

Immediate Payment Service (IMPS)

National Payments Corporation of India (NPCI) took up the initiative to set up Immediate Payment Service (IMPS). In this mechanism money can be transferred immediately from one account to another account, within the same bank or accounts across other banks.

With the rapid increase in usage of mobile phones, transactions using this service are expected to grow at a rapid rate in the coming years. The users can transfer funds to their desired bank accounts through their mobiles having internet access.

Upon registration, both the individuals/entities (parties involved in transaction) are issued a **Mobile Money Identifier (MMID)** ***Code*** from their respective banks, which is a *7 digit numeric code*. For initiating the transaction, the sender needs to enter the registered mobile number, MMID and bank account number of the receiver in his mobile banking application. Upon successful transaction, the money instantly gets credited in the receiver's bank account.

IMPS facility is available 24X7 and it can be used through mobile banking application. Internet banking profiles of their customers are also being used by some banks to provide this service. Most banks provide this facility free of cost and offer it to their customers so as to encourage paperless payment system.

With the greater acceptance of mobile banking services, IMPS has evolved. Now money through IMPS can also be transferred directly, using the receiver's bank account number and IFSC code. Neither the receiver nor the sender needs to be registered for mobile banking service of his bank. There is also no need for MMID codes.

IMPS transfer mechanism differs from NEFT and RTGS in the fact that there is no time limit to carry out transactions. This facility is available 24X7. IMPS facility is available on all bank (including RBI holidays) and public holidays.

Other Payment Systems

These include the Mobile Banking System, Automatic Teller Machines (ATMs), Point of Sale (POS) Terminals and Online Transactions.

Mobile Banking System

Mobile banking is defined as a service provided by a bank or other financial institution (according to operational guidelines on mobile banking published by RBI in 2008, only licensed banks are permitted to offer mobile banking services in India after obtaining necessary permission from RBI.) that allow its customers to conduct a range of financial transactions remotely using a mobile device (such as a mobile phone or tablet), and using software (usually an app), provided by the bank for this purpose.

Such services are gaining huge importance with the unprecedented rise in the usage of mobile device in India. Banks are investing heavily on this arena. These services are of great importance if the Government wants to realize its dream of a cash-less society and a Digital India.

Automatic Teller Machines (ATMs)

Automatic Teller Machines (ATMs) are electronic banking outlets that allow customers to complete basic transactions without visiting a bank branch. ATMs were first introduced in India in late 1980s. There are three different types of ATMs according to their label, which are as follows:

1. Bank's own ATMs: These ATMs are owned and operated by the owner bank and carry the Bank's logo. Such ATMs are the costliest way of providing ATM services.

2. Brown Label ATMs (BLAs): These ATMs are not owned by the sponsor banks. They are owned and operated by third parties (non-banking companies). They carry the logo of the bank outsourcing the service.

The concerned bank only handles a part of the process which back-end server connectivity and is handling of cash.

3. White Label ATMs (WLAs): These ATMs are owned and operated by a non-banking company and serve the customers of all banks. These ATMs are interconnected with the entire network of ATMs in the country and carry the logo of the company owning them. The role of the concerned banks is limited to providing only the account information and assisting in back end money transfers.

By RBI's order such companies have a mandate to deploy 67% of their ATMs in rural areas and 33% in urban locations. The first such company that secured permission from RBI to set up WLAs is Tata Communications Payment Solutions and its brand name is *'Indicash'*.

Point of Sale (POS) Terminals

A Point of Sale Terminal (POS terminal) is an electronic device used to process card payments (credit/debit card) at retail outlets. A POS terminal can generally do the following:

1) It can read the basic account information available on a customer's credit or debit card by connecting to the banking and payment system networks.

2) It can check whether the funds in the customer's bank account are sufficient or not.

3) Its can transfers the funds from the customer's account to the seller's account.

4) It can record the transaction and prints a receipt.

Online Transactions

Online Transaction, which is also known as a PIN-debit transaction, is a method of payment which protected by password, used to authorize a transfer of funds over an Electronic Funds Transfer (EFT) mechanism.

When someone pays for goods/services with a debit/credit card, there is an option for processing the payment in two different ways: as an offline transaction via a credit card processing network, or an online transaction via an EFT system. The second option of using an EFT facility requires a PIN (Personal Identification Number) to complete the process. The fund transfer is completed via an EFT network depending on which EFT system the customer's bank is associated with.

Encouraging e-transactions to move towards a 'Cashless Society'

RBI is the apex financial and regulatory institution in the country in regulation of payment and settlement systems. It is mandatory for the RBI to ensure that the payments system in our country evolves continuously and is as technologically advanced as possible. To realise this goal, RBI has taken certain initiatives to strengthen the e-payments system in India and to encourage people to adopt it.

The Government and RBI want to revolutionize the payment system in India, by giving people the power to carry out everyday purchases directly from their bank accounts, without the need for carrying cash. RBI has introduced a new interface which allows the customers to do just that. Former RBI Governor Mr Raghuram Rajan launched the Unified Payments Interface (UPI) system, as its latest offering to boost digital money transactions.

UPI interface has been developed by NPCI (National Payments Corporation of India), which is the umbrella organisation for all retail payments in the country. The Unified Payment Interface seeks to make money transfers easy, quick and hassle free.

The Payment and Settlement Systems Act, 2007 was a major step in this direction. It enables the RBI to "regulate, supervise and lay down policies involving payment and settlement space in India." Apart from some basic instructions to banks as to the personal and confidential nature of customer payments, supervising the timely payment and settlement of all transactions, the RBI has actively encouraged all banks and consumers to embrace e-payments.

The **Payment and Settlement Systems Act, 2007** (the umbrella act governing all payment and settlement systems in India) enables the RBI in regulation, supervision and in laying down policies involving payment and settlement mechanisms in India. Apart from providing basic guidelines to banks regarding the confidential and personal nature of customer payments, supervising timely payment and settlement of all transactions, RBI has actively been encouraging all banks and consumers to embrace e-payments.

To pursuit this goal and to move towards a **'Cashless Society'**, RBI has granted NBFCs (Non-Banking Financial Companies) the permission to issue co-branded credit cards in partnerships with commercial banks.

The **Kisan Credit Card (KCC) Scheme** was launched by NABARD (National Bank for Agriculture and Rural Development) in order to meet the credit/loan needs of Indian farmers. Its aim is to free the farmers of paper money hassles and encouraging them to use only plastic money.

RuPay, a domestic card scheme has also been started by NPCI, promoted by RBI and IBA (Indian Banks Association). It is promoting the use of cards (plastic money). Initially RuPay is focusing mainly on potential customers from rural and semi-urban areas of India to bring them into the folds of e-payments and transactions. India can benefit hugely from RuPay, as in due course of time it will have a much wider reach than Visa, MasterCard or American Express cards due to its indigenous nature.

Each employee working under the MNREGA (Mahatma Gandhi National Rural Employment Guarantee Scheme) is slated to have a **Smart Card**. This smart card will be functioning as a personal identification card, credit card, and driver's license. These smart cards will also be functioning as an electronic pass book, thus familiarising the rural populations and our poor with e-payments.

The way in which Indians carry out money transactions is changing and the pace of change will only be accelerating in the future. Rapid digitization of money is also changing the mind-set of Indians, towards risk and investment which can change the face of finance in India. Sustained evolution of Payment and Settlement Systems would be playing a major role in achieving this goal. Even if we cannot achieve a ‘Cashless India’ in the near future, we must strive towards a ***‘Less Cash India’***.