

Analysis on RBI's Payment Vision 2009-12

Anuj Anand



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1 Introduction

India's payments industry has revenues of nearly \$14 billion and is poised for a major growth. The rapid advancements in the field of information technology (IT) have contributed to emergence of new products as well as methods of payment and settlement. In recent years, the use of electronic payments has witnessed manifold increase, partly reflecting increased adoption of technology.

As per the report on '[Payment Systems in India - Vision 2009-12](#)', Reserve Bank of India aims to undertake various initiatives to improve security of cards, make ATMs more accessible to the public, make banking more accessible to the public, improve its efficiency, timings and reduce risks.

It annotates that the future is in mobile payments and focus on alternate methods to improve the Indian payments industry. Keeping in mind that e-commerce is a key driver for the digital space in India.

The purpose of this document is to enlist and describe about the scope of various initiatives by RBI to improvise the existing infrastructure; the impacts on the regional payments system and opportunities for the IT industry.

2 Executive Summary

The executive summary highlighting the main points in the RBI's Payment Systems of India vision report 2009-12 are listed below:-

Speed clearing to clear the outstation cheques will now be extended to 100 centres across the country.

Computerization of operations across all the clearing houses in the country on cards

Discontinuation of the presently existing centralized ECS offered at Mumbai and 15 RBI locations.

The operating hours of RTGS will be reviewed and considered based on market / user expectations and stakeholder feedback.

Computerization of the Processing and Settlement Operations at Clearing Houses will now be supported via the Magnetic Media Based Clearing System (MMBCS) software

All cheques (Including cheques used by the Government Department) will be completely migrated to the MICR mode.

All the Time critical and Large Value Payments will be processed only through the electronic mode

All bank branches will now be enabled with MICR and IFSC code. The basic idea being to provide the customers with the choice of product for retail and small value transactions viz. use MICR for NECS and IFSC for NEFT.

The reach of various electronic products (i.e. RTGS, NEFT, NECS) to be extended across the branches of banks, including Regional Rural Banks

Based on the analysis of volumes, user requirements and efficiency perspectives, the number of settlements in NEFT will be reviewed and further increased / rationalized

To provide a positive acknowledgement to the remitter confirming credit to the beneficiary's account for transactions initiated in NEFT will be introduced.

RTGS and NEFT to support, the facilitate origination and receipt of Government transactions by the banks.

Due to the various set of risk associated with paper based clearing especially for large-value transactions, and the advantages available in the electronic products(NEFT / RTGS), conduct of High Value Clearing will be discontinued at all locations in the country

*New initiatives like National Infrastructure on Mobile Payments, 24*7 banking, Village to Village connectivity have been proposed*

3 Payments Evolution Chronology

RBI has played the role of a catalyst in institutionalizing the “Payments Framework” for developing a very safe, secure, sound and efficient system.

This has been along with the setting up of various institutional, procedural and operational measures to strengthen and refine payment systems.

The prominent developments by RBI chronologically are shown below

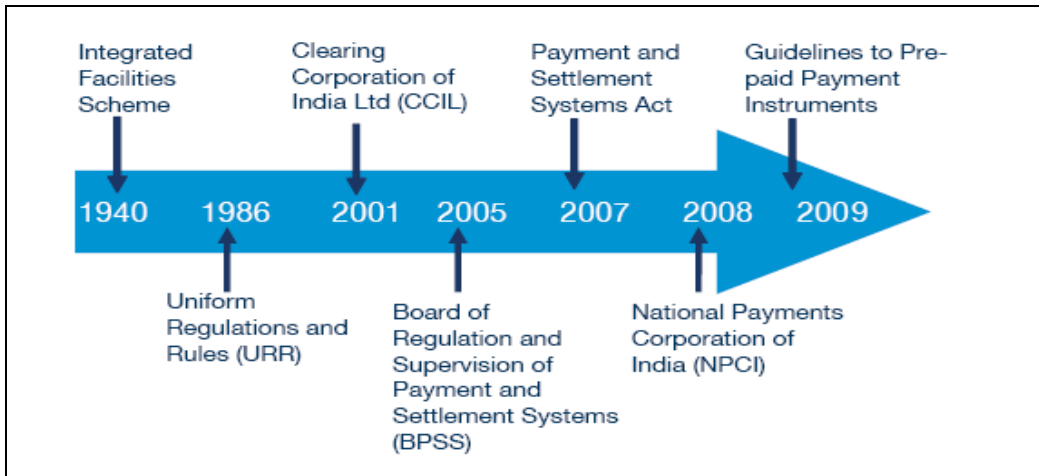


Figure 1:- Prominent Infrastructure Developments.

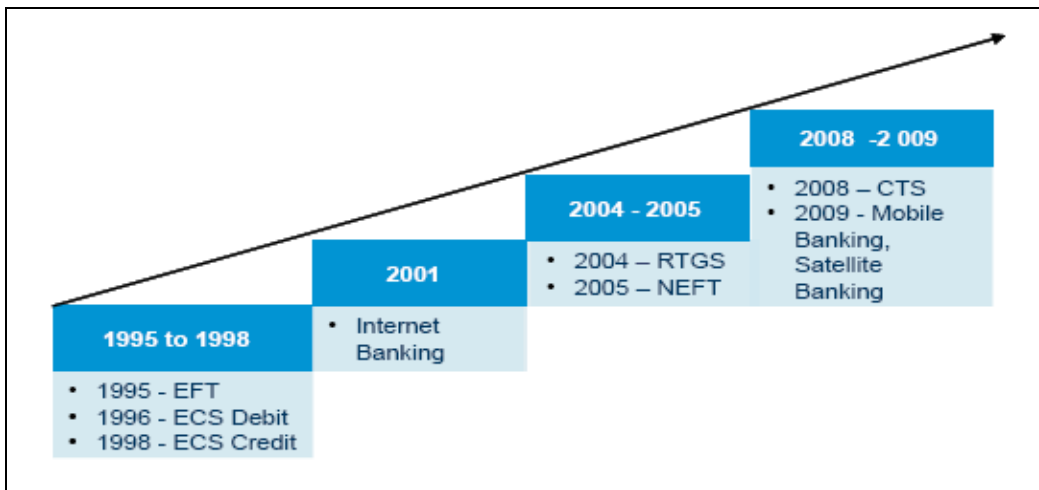


Figure 2:- Prominent Product Developments.

Source: - PWC report – Payments Business in Indian Banks

Retail Payments Systems – Present Scenario:

The retail payment system includes cheque Clearing, retail electronic fund transfer and card payment.

- The Cheque Truncation System (CTS) was implemented in the National Capital Region in February 2008 to enhance the efficiency of the paper based clearing system.
- Between end-March 2009 and end-September 2009, the branch network of national electronic funds transfer (NEFT) enabled banks increased from 54,200 to 60,839 and the RTGS enabled branches increased from 55,000 to 60,144.
- As at end-September 2009, 114 banks with 30,780 branches have been participating in national electronic clearing service (NECS) which was introduced in September 2008.
- SCBs and non-bank entities are now permitted to issue pre-paid payment instruments.
- In August 2009, other entities were also permitted to issue mobile phone based semi-closed system pre-paid instruments for a maximum value of Rs.5,000.
- Since October 8, 2008, the Reserve Bank has so far granted approval to 32 banks to provide mobile banking facilities to their customers.

4 Payments Framework

4.1 Institutional Infrastructure

4.1.1 IDRBT

4.1.1.1 Indian Financial Network

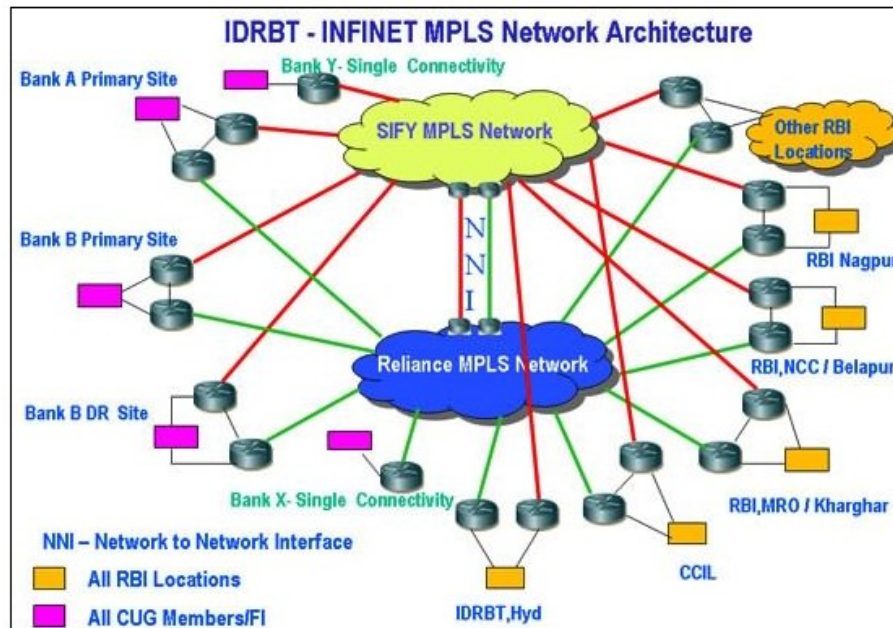
INFINET, a hybrid network of VSATs and leased lines, provides the communication backbone for the exclusive use financial transactions for the entire banking and financial sector.

Various inter-bank and intra-bank applications ranging from Simple Messaging to Real Time Gross Settlement System are being implemented using the INFINET.

Presently, the network is spread across 300 cities in our country

The INFINET is based on Multi-Protocol Label Switching network, where the packet and label switching takes place at service providers' level. A detailed IP addressing scheme has been devised by IDRBT for all CUG members while accessing RBI, CCIL and IDRBT applications.

INFINET has migrated to the latest MPLS technology.



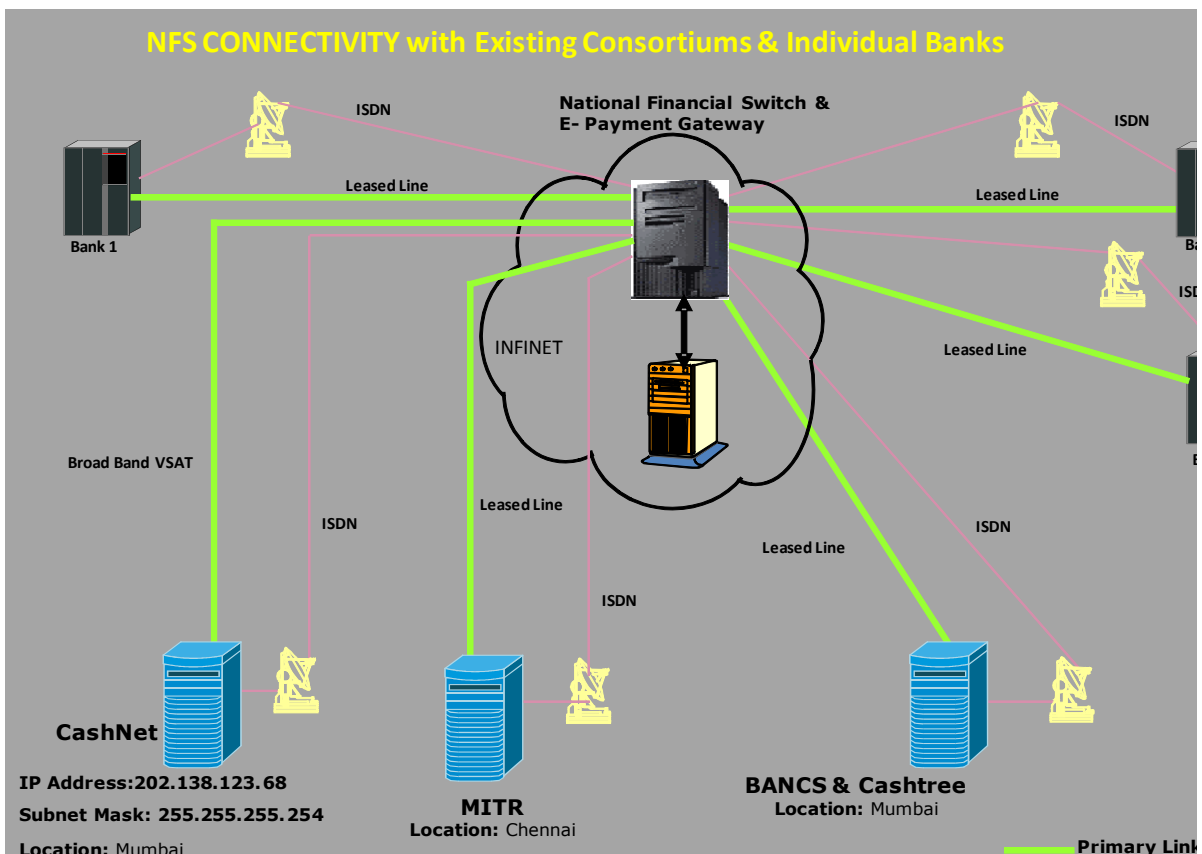
Source: - IDRBT

4.1.1.2 National Financial Switch:

IDRBT was instrumental in setting up of the National Financial Switch (2004) steering the banking domain in India towards convenience-banking for the citizens of the country NFS comprises of a National Switch to facilitate inter-connectivity between the Banks' Switches & their ATMs.

The NFS presently connects 49,297 ATMs of 37 banks and is the largest network of Shared ATMs in the country.

An e-Payment Gateway for authentication & routing the payment details of various e-commerce transactions would be ready shortly. This initiative would broaden the scope of ATM sharing,



Source: - IDRBT

4.1.2 CCIL

- **The Clearing Corporation of India Ltd. (CCIL)** acting as a Central Counter Party for the Government Securities as is for the Forex Clearing.

Umbrella Org for Retail Payment Activity:

RBI to work towards the finalization of the roadmap for National Payments Corporation of India (NPCI), which has been set-up as an umbrella organization by the banking community to take over the retail payment system activities in the country.

Implications

NPCI is expected to take over RBI existing electronic payment infrastructure (National Electronic Funds Transfer and Electronic Clearing Service) and also the NFS from the Hyderabad-based Institute for Development & Research in Banking Technology (IDRBT).

Since NPCI will exclusively handle electronic payments and funds transfer, ATM network, and card payment system, RBI will have to take a call on the future of the NFS, which is currently being managed by IDRBT.

IDRBT established the NFS, which facilitates routing of ATM transactions through interconnectivity between the switches of various banks, in 2004.

RBI set up the institute in 1996 as an autonomous centre for development and research in banking technology. Meanwhile, the institute is in the process of procuring an additional NFS to route all types of electronic transactions such as ATM, POS, mobile commerce, electronic commerce, funds transfer, etc

The additional switch is expected to provide a very high level of availability, take a peak load of 3,000 transactions per second, and provide robust management information system facility.

The institute is seeking to build abundant redundancy in terms of processing capability, business continuity and disaster recovery by procuring additional and alternative switching capability.

4.2 Products & Services

4.2.1 ECS

ECS is a mode of electronic funds transfer for transactions that are repetitive and periodic in nature.

This product is used by institutions for making bulk payment of amounts towards distribution of dividend, interest, salary, pension, etc., or for bulk collection of amounts towards telephone / electricity / water dues, cess / tax collections, loan installment repayments, periodic investments in mutual funds, etc.

Essentially, ECS facilitates bulk transfer of monies from one bank account to many bank accounts or vice versa using the services of ECS Centre at an ECS location

4.2.2 NEFT

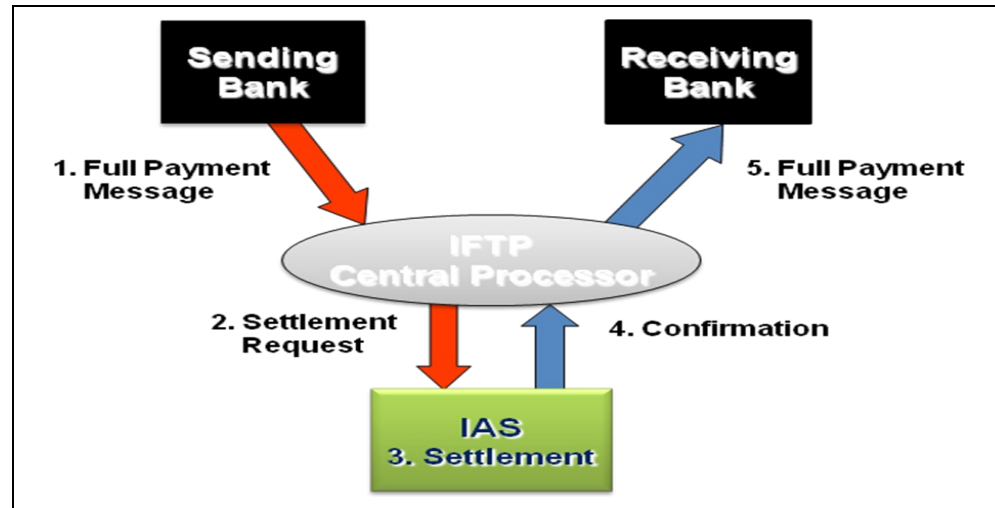
National Electronic Funds Transfer (NEFT) is a nation-wide system that facilitates individuals to electronically transfer funds from any bank branch to any other bank branch in the country

As of Nov 2009, 62,000 branches/offices of 94 banks in the country were NEFT enabled.

The NEFT system actually takes advantage of the centralised accounting system in banks. For the purpose, the account of a bank that is originating or receiving funds transfer instructions is operated centrally at Mumbai. The branches participating in NEFT can, however, be located anywhere across the length and breadth of the country.

4.2.3 RTGS

Real Time Gross Settlement System (RTGS) to lower transaction costs by speedier settlement, among other considerations.



Source: - RBI

The facility for inter-bank funds settlement through RTGS is available across more than 53,000 branches of banks spread across the length and breadth of the country. On a daily basis it settles close to 100,000 transactions in the RTGS, the average is around 60,000 per day whereas NEFT number has jumped exponentially to nearly 40 lakh a month today

4.2.4 CFMS

- **Centralized Funds Management System (CFMS)** that allows the treasury managers to have an integrated view of the funds position across geographies.

4.2.5 NDS

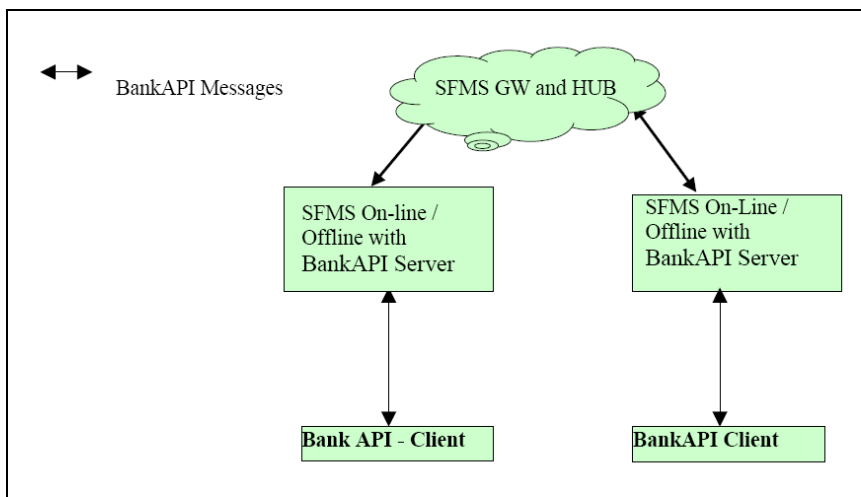
Negotiated Dealing System (NDS) facilitates both electronic bidding in auctions and dealing in government securities and money market instruments. It produced a shift from largely telephone-based trading to a completely screen-based on-line trading.

NDS has reduced information asymmetry in the markets and prevents the possibility of collusive trading that provides excess returns to some investors

4.3 Standardization

4.3.1 SFMS

- **Structured Financial Messaging System (SFMS)** to standardize the message formats for various banking transactions including currency and government transactions. The SFMS is built on the lines of SWIFT but has many more utilities to offer.



Source: - IDRBT

SFMS is being used for RTGS, Treasury Reporting, NEFT, Integrated Accounting System, and for exchanging of messages in the Banking Sector. 72 Public and Private Sector Banks are currently using SFMS and is operational in over 60 banks covering 25,000 branches

4.3.2 Systemically Important Payment Systems in India (SIPS)

The Working Group on Systematically Important Payment Systems, set up by the RBI, has identified some payment systems as systemically important.

- ✓ The Inter-bank Clearing System;
- ✓ The High Value Clearing System;
- ✓ The Securities Clearing and Settlement System;
- ✓ The MICR Clearing System;
- ✓ The Government Securities and Foreign Exchange Clearing Systems;
- ✓ The Real Time Gross Settlement System.

According to the RBI's mandate it has ensured that in RTGS accounts for 83% of the value of Systemically Important Payments System (SIPS) in India, although it

commands for a mere 21% of the volume of transaction are done via SIPS and the remaining 79% is still being done by through high value cheques.

The greater usage of electronic payments products and funds transfer is possible by increasing the coverage of the Core Banking Systems across various banks

It may be noted that STP – Straight through Processing has been achieved via the support of the integration of the RTGS system with the RBI's internal accounting system (IAS) and securities settlement system (SSS), which invariably facilitates automatically intraday liquidity (IDL)

The main challenge still remains for the RTGS being w.r.t payments between INR 1.00 Lakh to INR 10.00 Lakhs, a niche segment, wherein still the usage of cheque dominates

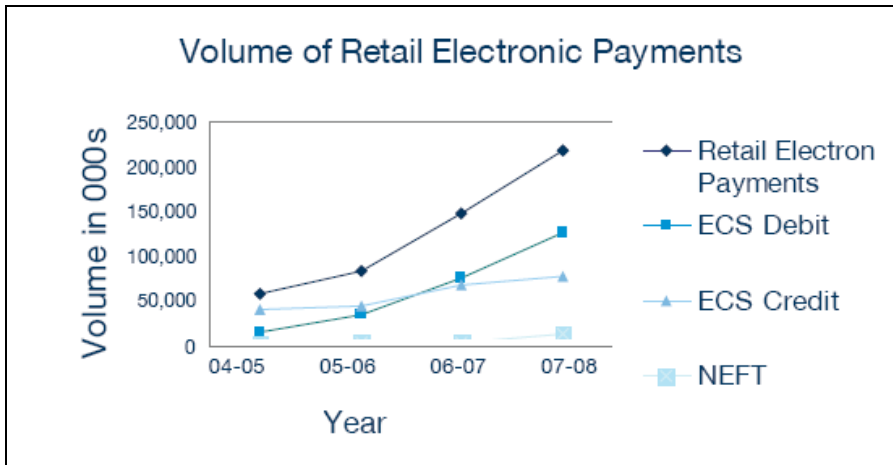
Retails Payments – Historical Analysis

Since there is no clear mandate from the RBI regarding the usage of electronic modes for person-to-person (P2P) or person-to-business (P2B) payments, cheques are being used for retail payments.

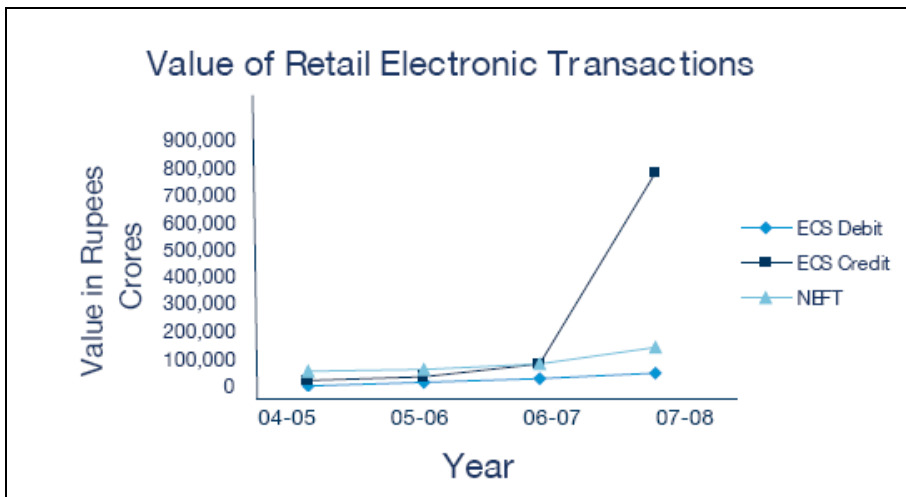
Electronic retail payments account for 27% in terms of volume and 12% in terms of value amongst all retail payment transactions in the country.

Facts & Findings

- *The Growth of NEFT, which replaced the technologically inferior EFT service in 2005, has been on the slow side compare to ECS credits.*
- *The overall growth in retail payments has resulted primarily due to the off take in ECS Credit transactions, which were considered as an instrument of choice for salary disbursements.*
- *ECS credit has also got a lot of support from the mandate give by the Stock Exchange in the country, where-in the refunds of the oversubscription amount of IPOs through ECS Credit.*



Source: - PWC report – Payments Business in Indian Banks



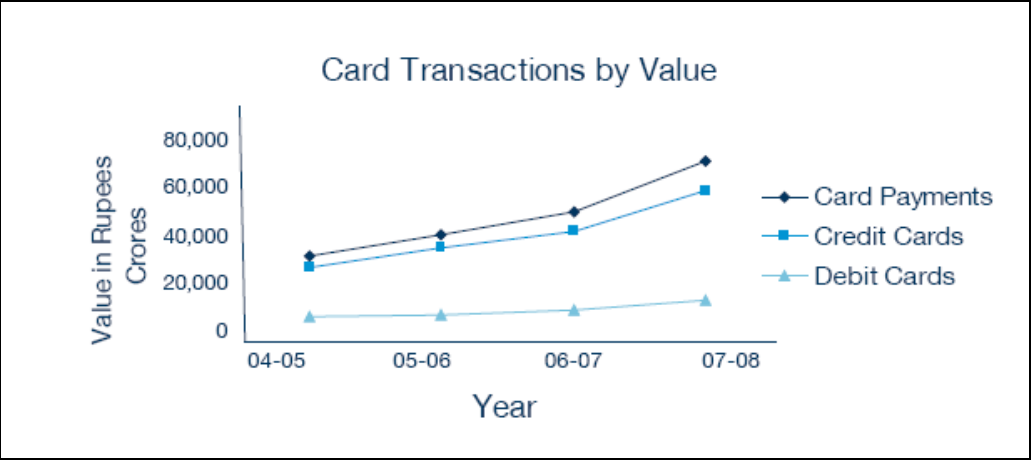
Source: - PWC report – Payments Business in Indian Banks

Cards Payments

The bulk of the card payments transactions are due to credit cards, although the growth in the base of debit cards has been quite significant over the last few years, owing to the fact that majority of the Public Sector banks have replaced their ATM cards , with PoS enabled Debit Cards.

Compare to the Credit Card, the base of the debit cards is nearly four times.

In fact, the overall usage of the debit cards at the PoS outlets is still significantly lower than credit cards, contributing a mere 18% of total card transactions, as illustrated in the subsequent chart.



Source: - PWC report – Payments Business in Indian Banks

5 Focus & Approach

5.1 Improvisation

In the Report, RBI has categorically defined the following domain areas

5.1.1.1 Card Payments

- **Card Security**

RBI working towards the further improving the rules dealing with the cards security

Although on the 1st Aug 2009, RBI did implement the following rules

- i) A system of providing for additional authentication/validation based on information not visible on the cards for all on-line card not present transactions except IVR transactions (for which separate instructions will follow)
- i) "Online Alerts" to the cardholder for all 'card not present' transactions of the value of Rs. 5,000/ and above

5.1.1.2 ATM Payments

- **Review of the ATM Policy**

RBI to review the ATM policy on the following issues

1. Terms on increasing the number,
2. Criteria for setting up on-site and off-site ATMs,
3. Levy of charges
4. Safety of Transactions
5. Activities permitted to be carried out through ATMs
6. Security features (Ensuring the privacy & safety of transactions)
7. Resolution of grievances & complaint handling
8. Accessibility of other-bank ATMs, inter-ATM network

RBI will closely watch and put appropriate measures in place to protect usage and prevent mis-use

5.1.1.3 Electronics –NEFTS /RTGS

- **Streamlining Prescription of Large Payment Systems**

The payments products like RTGS (Real Time Gross Settlement), NEFT (National Electronic Funds Transfer) and NECS (National Electronic

Clearing Service) will be extended to cover all the branches of banks, including Regional Rural Banks.

All large-value and time-critical payments will be processed only through the electronic mode.

All credits arising out of sponsored and welfare schemes of the Central and State Governments shall be facilitated through Electronic Benefit Transfer schemes.

- **Operating Hours of RTGS:**

Operating hours of RTGS will be reviewed and considered based on market / user expectations and stakeholder feedback.

Effects on the Other Financial Sectors:-

This will enable stock exchanges to extend trading hours and align their operations with other countries

- **Government Receipts via RTGS**

RBI has taken a series of initiatives in the recent past to facilitate the government receipts via the RTGS (electronic mode of funds)

Although this scheme has not picked up across all the banks, due to the fact that only accredited banks are permitted to receive payments to Government and every credit to the Government account needs to be supported by a Challan.

The present message platform of the RTGS support the funds transfer messages and not challan; hence this aspect affects the receiving bank, not being in a position to afford credit to the Government account, relating the transaction being returned.

In order to facilitate Government receipts through RTGS, a bilateral arrangement needs to exist between the receiving bank and sending bank to receive funds. Under this arrangement the banks will have to use the interbank mode R 42 for such transfers.

RTGS participants can use this arrangement for the time being till the procedure followed for Government receipts is fine tuned with RTGS frame work.

- **Computerization of all Clearing House (MMBCS)**

Magnetic Media Based Clearing System software will be used to computerize processing and settlement operations at all Clearing Houses in the country.

Magnetic media based input settlement software package, developed in-house. The clearing data from the banks aggregated as receivables, are submitted in floppies to the clearing house and settlement is carried out.

The magnetic media based input settlement represents an intermediate step towards complete automation of cheque clearing through MICR processing and enables banks and the clearing house to get accustomed to a computerized environment.

The system has been in operation for nearly four years and is functioning satisfactorily. It covers presentation clearing, return clearing, High Value/High Value return clearings and inter-bank clearing but does not cover inter-city clearing.

- **Indo Bhutan Remittance, based on the lines of the Indo-Nepal Scheme**

RBI launched Indo-Nepal Remittance Facility Scheme (May 2008), which permits one-way funds transfer from India to Nepal.

A remitter can transfer funds up to Indian rupees 50,000 from any of the NEFT-enabled bank branches in the country to Nepal. The beneficiary would receive funds in Nepalese Rupees.

The charges for effecting funds transfer under the Scheme were rationalized and revised in February 2009, with the maximum charge being Rs.75.

On the same lines a Remittance Scheme for Bhutan will be designed and launched by RBI in the near future, which would be helpful to Bhutanese migrant workers in various cities in India to remit funds back home.

- **IFSC /MICR Codes**

All bank branches will be enabled with IFSC and MICR codes. The basic intention is to leave the user with the choice of product for retail and small-value transactions viz. use MICR for NECS and IFSC for NEFT.

- **Number of settlements in NEFT**

Number of settlements in NEFT will be reviewed and further increased / rationalized depending on analysis of volumes, user requirements and efficiency perspectives.

- **Acknowledgement from beneficiary's bank to Remitter's bank**

RBI plans to introduce the concept of providing positive acknowledgement to the remitter confirming credit to the beneficiary's account for transactions initiated in NEFT.

This would give a comfort level to the remitter and enhance their usage.

- **NECS expansion plans**

A total revamp of the ECS system is on the cards. Branches covered under the Local ECS will be added under the NECS

NECS coverage will be extended to all core-banking enabled branches in the country.

Scope for introducing Regional ECS (RECS) at more centres will be explored. RECS (Credit) (presently experimented at Bangalore) provides increased reach by extending the jurisdiction of Local ECS at the State Capital (Bangalore) to the entire core-banking enabled branches in the State (Karnataka).

Introduction of RECS (Debit) would be actively explored and implemented at a few locations in the country. NECS (Debit) operationalisation will also be separately or on parallel lines being pursued.

- **Clearing House Operative**

Interbank Funds Transfer through CFMS

The CFMS in the present scenario, supports centralised balance viewing of and funds transfer between own accounts of a member bank maintained with the Bank at different locations.

RBI will be examined if CFMS can be enabled to facilitate funds transfer between member banks as well.

Balance Check and Transfers

Single Window Facility will be extended to all member banks that are part of Clearing Houses managed by major banks. This will enable member banks to view balances maintained by them with these banks at different Clearing Houses and also initiate funds transfer requests from / to their own accounts.

5.1.1.4 Cheque Collections

- **Cheques to Be Standardized:**

With the help of OCR (Optical Character Recognition) capture of information contained in the cheques, RBI expects to reduce incidence of frauds and limit manual intervention through straight-through-processing.

- **Grid Based CTS for all CPC:**

An electronic method of processing cheques will be rolled out at Chennai. National roll-out of CTS will be considered once this project is operationalised.

A pilot project (CTS) was implemented at the NCR- New Delhi in August 2008.

Going further it is anticipated that the whole country would be connected through 6 or 7 Grids.

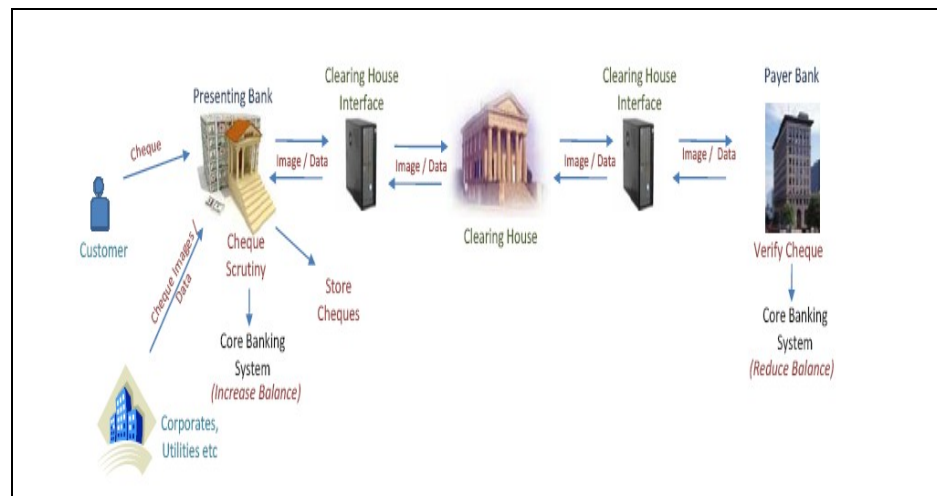


Figure: - Cheque Truncation Process Flow

- **Speed Clearing**

Speed clearing to clear outstation cheques at the centre of presentment will be extended to cover 100 major centers, from the presently 66 location

Speed clearing refers to collection of outstation cheques through the local clearing. It facilitates collection of cheques drawn on outstation core-banking-enabled branches of banks, if they have a net-worked branch locally.

As on date, the local cheques are processed on T+1 working day basis and customers get the benefit of withdrawal of funds on a T+1 or 2 basis. 'T' denotes transaction day viz. date of presentation of cheque at the Clearing House. So, the outstation cheques under Speed Clearing will also be paid on T+1 or 2 basis.

This facilitates the collection of out station cheques faster. Currently, through normal outstation cheque collection processing, cheques are cleared in 5 to 30 days.

- **Discontinue High Value Based Clearing –Paper Based Cheque**

Due to the presence of electronics payments products like RTGS, going further, there will be a discontinuation of the HVB cheque at all the location across the country

This will help customers in controlling the payment timing, for debiting the account. Also, for banks, they will have 1 less clearing house participation and related processing.

- **Discontinuation of Non MICR Cheque Completely**

Non-MICR clearing presently operational in a few locations in the country (on a once-per-week basis or otherwise) will be discontinued.

- **Grid based Clg. House**

The idea of bringing various Clearing Houses in a region (covering adjacent states) under the same roof with the help of using a Grid-based approach is being sketched out.

Grid-based cheque clearing system to cover nearby MICR-CPCs and Clearing Houses under the Chennai-grid (covering southern states) will be implemented.

The New Delhi-grid will also be operationalised by extending the jurisdiction of New Delhi Bankers' Clearing House to cover nearby cities / states.

Extending the concept of grid-based clearing to cover other regions in the country will be reviewed based on experience gained from the operationalization and functioning Chennai and New Delhi grids.

- **Avoidance of bilateral arrangement in Clg.**

Bilateral arrangements function outside the clearing infrastructure and do not contribute to the efficiency of the system in all situations. Therefore, all the Bilateral Clearing arrangements between banks would be reviewed and allowed to continue only where necessary.

- **CCP's –Cheque Collection Policies- Domestic and International**

RBI has reiterated various guidelines regarding CCP, which are as follows:-

1. Bank need to indicate in their Cheque Collection Policies (CCPs) the timeframe for collection of local and outstation cheques, apart from other aspects advised to them from time to time
2. CCPs framed by banks should be made comprehensive in terms of scope, coverage, transparency and dissemination.
3. It will be imperative that these banks strictly operate within the meaning and intent of the CCPs especially in regard to timeframe for collection, grievance redressal mechanism and penalties for non-conformity,"
4. These CCP need to be widely publicized and also published in the respective banks' websites.

RBI also will frame guidelines for collection of foreign-currency denominated cheques payable in UK and locations that have significant volumes, in addition to the timeframe specified for collection of US-Dollar Denominated Instruments.

- **Secured Web Site**

Secured Web Site (SWS) facility will be extended to cover all MICR-CPCs. The SWS facility will be used by CPCs / member banks to upload / download clearing data / reports. Hard copies of clearing reports by the CPCs will be provided only in exceptional and need-based circumstances.

- **MICR –CPC**

Also presently operational, MICR-Cheque Processing Centres (MICR-CPCs) will be considered at all locations that are viable and have a daily volume of 10,000 instruments or more.

5.1.1.5 Pre-Paid Instruments

Prepaid payment instruments are payment instruments where value for use is stored in advance, such as, smart cards, magnetic strip cards, internet accounts, internet wallets, mobile accounts, mobile wallets, paper vouchers, etc.

Prepaid payment instruments enhance convenience as a mode of payment *in lieu* of cash. Also, this facilitates e-payment for goods/services purchased/availed through internet/ mobile. The maximum loss on account of fraudulent use of the card is limited to balance available on the card

5.1.1.6 Mobile Payments

- **Funds transfer**

Efficient mobile payments would require real time transfer of funds with adequate security. Currently all inter-bank mobile transfers are payment instructions for settling funds through existing payment systems

5.1.1.7 Co-ordination with the following Regulatory Bodies

- **Domestic & International**

RBI is continuing its initiatives towards information dissemination, policy and product outreach, co-ordination with other regulators / international / regional bodies, both within the country (SEBI, IRDA, etc.) and abroad (central banks, CPSS, SAARC Payments Council, etc.).

It shall be contributing to international oversight and co-operation initiatives as a member of the CPSS, the SAARC Payments Council and such other similar bodies.

The Bank shall also encourage and support partnership programs with Payment Systems in India – Vision 2009-12 neighbouring countries and regional institutions for reforms in payment systems in the region.

Review of Categorization of Systemically Important Payment Systems (SIPS) and System-Wide Important Payment Systems (SWIPS) was carried out during 2002. A Review of SIPS and categorization of SIPS was also carried out by the Committee on Financial Sector Assessment as part of the Financial Sector Assessment Program during 2008-09. It shall be the endeavour to repeat this exercise and

bring out a Review of Large-Value Payment Systems in the country as well.

It will also publish the Red Book on Payment Systems for India in collaboration with CPSS-BIS and a Second Report on Oversight of Payment Systems in India (the First was published in 2007).

5.1.1.8 Regulatory Issue

- **Settlement Finality Directive**

Settlement Finality Directive to provide finality of settlement for transactions initiated in the retail payment systems will be put in place. The existing unwinding mechanism that provides for partial unwinding (only the dues of the defaulting institutions are unwound and removed from settlement but not the dues to the defaulting institution)

- **Data Storage Policy:**

As part of the Information System Policy framework, RBI is working on a policy for preservation and storage of data / information generated and maintained both in respect of the paper and electronic clearing modes.

- **Stricter Authorization of Payment Systems:**

CB shall regulate all payment systems in operation and authorize any new ones only if they pass the following

- a) an efficiency assessment: need,
- b) Technology to be used
- c) Benefits to the economy
- d) Expertise of the operator
- e) Financial soundness
- f) Composition of management
- g) Adherence to corporate governance
- h) Compliance with legal / regulatory guidelines.

RBI shall refuse authorization and close any payment firms if the need for them is not felt or their operations are not satisfactory.

RBI plans to place on its website the names of authorized payment firms and the conditions of authorization to which they are subject.

- **Business Continuity Plans**

Ensure redundancies to handle business continuity requirements. The redundancies in the form of additional / alternate arrangements will address both processing and settlement requirements.

Periodic assessment by way of conducting drills, switch-over of the operations / settlements will be carried out and business continuity plans will be documented and suitably modified.

5.1.1.9 Electronic/Online Payment modes (24th Nov 2009)

- **Settle Online Payments in 2 Days:**

All online payments towards products or services should be settled by the banks within 2 days of the transaction taking place.

RBI in its directions issued to various banks, has asked them to comply on the following

- *All payments to merchants that did not involve transfer of funds to nodal banks should be effected within a maximum of T+2 settlement cycle. (T is defined as the day of intimation regarding the completion of transaction)*
- *Those payments to merchants involving nodal banks should be effected within a maximum of T+3 settlement cycle.*
- *The banks should convert the existing accounts used to collect payments for electronic transactions (payment) into internal accounts within three months. In the present scenario all payments made by customers (for settlement of e-commerce/m-commerce/bill payment transactions), are credited to the accounts of intermediaries. These funds are then transferred to the accounts of the merchants in final settlement.*
- *Any delay in the transfer of the funds by the intermediaries to the merchants' account will entail risks to the customers and the merchants, adversely impact the payment system.*
- *Funds maintained in these accounts would be treated as outside liability of the bank and the balances in these accounts taken into account for computing net demand and time liabilities of the bank.*
- *These accounts to concurrent audit and the auditors should also give a certificate every quarter to the effect that these accounts are operated in accordance with these directions.*
- *All persons authorized to operate the payment system for issuing prepaid payment instruments and card schemes should comply with these directions.*

Additional Explanation:

For the purpose of these directions, all intermediaries who facilitate delivery of goods/services immediately/simultaneously (e.g. Travel tickets/movie

tickets etc) on the completion of payment by the customer shall not fall within the definition of the expression "intermediaries".

These transactions which are akin to a Delivery versus Payment (DvP) arrangement will continue to be facilitated as per the contracts between the merchants and the intermediaries as hitherto and banks shall satisfy themselves that such intermediaries do not fall within the definition of the "intermediaries" when they open accounts other than internal accounts.

Further, Electronic Commerce and Mobile Commerce (e-commerce and m-commerce) service providers have also been acting as intermediaries by providing platforms for facilitating such payments

5.2 Optimization

RBI is still working on the research on the following issues, before with come out with some firm guidelines for various banks in the country to follow:

5.2.1 Rationalize of charges

RBI to also going further to review the charges levied for offering various payment products (Cheque).

5.2.2 Growth in Pre-paid Instruments

Growth in use of pre-paid payment instruments consequent upon issuance of guidelines and authorization of various entities to issue such instruments.

5.2.3 Optimization of Intra-day liquidity

Bank-group-wise usage, of Intra-Day Liquidity for smooth settlement of RTGS transactions.

5.2.4 Promotion of electronic payments and increase use of hours

Operating hours of RTGS will be reviewed and considered based on market / user expectations and stakeholder feedback.

5.3 New Initiatives

5.3.1 Upgrade of Real Time Gross Settlement system

An improvised technological version of the RTGS to be put in place , which will provide more flexibility in day to day operations and better liquidity saving features supporting the transfer of funds between banks.

5.3.2 National Infrastructure for Mobile Payments:

Mobiles will emerge as an important channel for payment instructions and intends to ensure real-time m-payments are facilitated using a nation-wide infrastructure.

Efficient mobile payments will require real time transfer of funds with adequate security. Currently all inter-bank mobile transfers are payment instructions for settling funds through existing payment systems. So, RBI is building a new national infrastructure for facilitating real time mobile payments.

5.3.3 India's Own VISA

Central Bank is contemplating over the concept of a domestic payment card association and debit and credit cards, which will be known as **India Cards**

The basic premises being reduction in cost borne at present by Indian banks to various international card associations.

In the present scenario, VISA and Master-Card demand huge fees for their services from client banks. Banks thus have to pay a high cost for associating with them. As there is no alternative for banks but to accept whatever charges these two players think fit to levy for their services.

The list of service charges is quite exhaustive. Apart from transaction charges, they have a surfeit of other fixed charges including annual service charges, monthly maintenance charges and quarterly charges. The other problem faced by the bank is that these set of charges are levied irrespective of whether the cardholder uses the card and the bank cannot transfer all the charges to customer.

Another astonishing fact about Visa and MasterCard is that, they are not liable to pay a penny to the government in the form of taxes. Essentially, they are earning truckloads of revenues which are entirely tax-free. Banks are supposed to pay the service tax on behalf of Visa or MasterCard.

Source :-<http://www.moneylife.in/article/76/2445.html>

The NFS handles many domestic transactions for cash withdrawal, for the same transactions Visa Charges more than 10 times compare to what RBI charges the banks.

It has also noted that the implementation of a Point of Sales (PoS) switch in the country would eliminate the need to route domestic transactions through a switch located outside India, what has been the present scenario.

Domestic transactions account for 90% of total banking transactions in India.

According to the RBI's Annual Report , the value of credit card transactions were Rs 65,356 crore in 2008-09, a 100 per cent jump in the last three years.

This means almost Rs 60,000 crore was settled outside India through Visa and MasterCard — which act as the payment link on behalf of the bank, merchant and card holder — last year. Debit card transactions amounted to Rs 18,547 crore in 2008-09

5.3.4 24×7 banking

RBI is considering extending the National Electronic Fund Transfer system from its current operating timings of 9 am to 5 pm and Saturdays from 9 am to 12 pm to a 24×7 availability mode or develops a new system similar to UK's Faster Payments Service which operates on a 24×7 basis. This is being called ***India Moneyline***.

How does this work:-

A person can transfer the money their bank account by mobile or net banking facility and the beneficiary account holder can withdraw it through an ATM.

NPCI's national switching facility will support the process of a faster transaction. It ensures automatic debit of funds from the sender's account and credits the same to the beneficiary account.

Although, an upper limit for the amount will exist, that can be sent through this system. Each bank will have a settlement limit and the amount up to that extent will be available for automatic clearing. Since the facility is mainly meant for retail payment, there is no lower limit.

All bank branches with core-banking facility (having networked branches) will be able to offer the real-time money transfer facility. As of now, close to 80 per cent of the bank branches in the country are core-banking enabled.

5.3.5 Village to Village Connectivity

The replication of the NPS model is being planned by the RBI to develop a robust electronic remittance system across village-to-village by building suitable infrastructure to connect the systems of various banks which are presently involved in Electronic Benefit Transfer (EBT) through the medium of Business Correspondents.

The Business Correspondent model was to ensure a close relationship between poor people and the organized financial system.

RBI in 2006, permitted banks to use the services of non-governmental organizations, micro-finance institutions, retired bank employees, ex-servicemen, retired government employees, Section 25 companies, and other civil society organizations as Business Correspondents in providing financial and banking services.

RBI recently has further enlarged the scope of the BC model by permitting banks to appoint individual kirana/medical/fair price shop owners, individual Public Call Office (PCO) operators, agents of Small Savings schemes and insurance companies, individuals who own petrol pumps, retired teachers and self-help groups linked to banks as BCs. With a view to ensuring the viability of the BC model, banks have also been permitted to collect reasonable service charges from the customer in a transparent manner.

6 Impact on Financial Sector

*1. Since 24*7 banking, will facilitate the customers to make payments at any time of the day, which will invariably increase the hours of banking, hence will also have an impact on other financial institutions in the country. (i.e. stock exchanges will have to extend trading hours and align their operations with other countries.)*

2. India Visa Card – will reduce the cost of the overall card transaction by 10-15% for all the banks

3. Mobile phones are expected to emerge as an important channel for transmission of payment instructions. An efficient mobile payment would require real time transfer of funds with adequate security. This would require building a national infrastructure for facilitating real time mobile payments.

4. Improve in the volumes business w.r.t New Electronic Payments and Cost reduction with application of optimization features on existing products, which would translate in increase revenues for the banks across the country

7 Opportunities for IT

1. Opportunities in developing solutions for clearing houses
 - Clearing scheme
 - MIS reporting applications
 - Integration and gateway systems for connectivity with host
 - Testing kit, dummy applications for various platforms
 - Upgrade core-banking solutions
2. Infrastructure – maintenance
 - Participant bank infrastructure
 - Clearing house/scheme infrastructure
3. Testing services
4. Consulting services

8 Conclusion

RBI has been on the move with reference to the Payments and Settlement over the last few years.

This trend started way back in 2005 and the progress has been quite impressive, which gives us the much needed confidence, that the initiatives outlined for the coming years will also be implemented in a vigorous manner