

# The Emerging Trends In Indian Banking And Payment System

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**Abstract:** *With the ushering in of economic reforms in India during the early 1990s, the banking sector was opened up to the private sector and the entire sector has been deregulated gradually. This resulted in operational flexibility and functional autonomy for the banks but competition also became very keen amongst the players. With liberalization, the Indian economy also started growing fast and helped by the huge flow of foreign direct investments and foreign institutional investments into India, the liquidity in the banking system has improved a lot. The retail lending, especially, in emerging economies, showed a remarkable growth in the 1990s mainly due to rapid advances in information technology, the evolving macroeconomic environment, financial market reform and several micro-level demand and supply-side factors. With world-class technology, the private sector banks became very aggressive in business and to keep pace with them and to effectively counter competition, the public sector banks also followed them.*

*Liberalization of the Indian economy, which has a young population, has led to increased incomes, and purchasing power, aspiration for a better lifestyle and expectations of higher quality products and services (a result of increasing influence of international trends and preference for international brands). The average Indian, who had a strong aversion to credit, is now in favour of credit for convenience in shopping, for financing housing, automobiles and consumer durables and even holidays. The stigma attached to debt has declined substantially. Consumerism is growing and the credit culture is here to stay.*

**Keywords:** *Economic reforms, liberalization, Emerging Economies*

*“To proactively encourage Electronic Payment System for ushering in a less cash society in India and to ensure payment and settlement systems in the country are safe, efficient, interpretable, authorized, accessible, inclusive and compliant with International Standards.”*

(RBI Vision Statement)

Payment system will be driven by customer demands of convenience ease of use and access that will impel the necessary convergence in innovation e-payment products and capabilities. Integration of various systems through unified solution architecture and current technology would lead to adoption and usage of resilient payment systems. Regulation will channelize innovation and competition to meet these demands consistent with international standards and best practices. The overall regulatory policy stance is oriented towards promoting a less cash/ less paper society, the green initiative and hence the increased emphasis on the use of electronic payment products and services that can be accessed

and where and anytime by all at affordable prices The Reserve Bank recognizes that building dexterity of payment systems through standardization and a broad consultative process is a continuing agenda.

The Public Policy objectives of the Reserve Bank is to ensure that all the payments and settlement systems operating in the country are safe, secure, sound, efficient, accountable and authorized and contained both short and medium term plans along with a slightly longer term perspective to achieve these goals.

The Payment System initiatives taken over the last few years have resulted in deeper acceptance and penetration of modern electronic payment system in the country. Though cheque is still the dominant mode of payment, its share in all payments has come down from 65 percent to 52 percent in volume terms. The share of electronic payments in non cash payments have shown an upward trend with electronic

payments by the end of the year 2011-12 constituting 91 percent in term of value and 48 percent in terms of volume.

An analysis of the payment system landscape in India reveals that while the growth of electronic payment including RTGS transactions has been impressive, the benefits of modern electronic systems are yet to reach all section of the society and be accepted across the length and breadth of the country.

#### EVOLUTION OF PAYMENT SYSTEM IN INDIA

Following are the important developments that have taken place in the area of payment system in India under the guidance of Reserve Bank of India.

- ✓ Introduction of MICR clearing to meachanise the cheque clearing system in early 1980s.
- ✓ Setting up of the Institute for Development and Research in Banking Technology (IDRBT) in 1996 with aim of technological up gradation and development of a reliable communication network.
- ✓ Introduction of Electronic Clearing Service and Electronic Fund Transfer in the 1990s.
- ✓ Permitting issuance of credit and debit cards by the banks in 1990s.
- ✓ Inter connecting of ATMs across the country by introducing the National Financial Switch in 2003.
- ✓ Following the improvement in the information technology and introduction of CBS by banks, RTGS and NEFT introduced by RBI in 2004.
- ✓ The second factor authentication of the 'card not present' transaction, the first of its kind in the world, introduced by RBI in February 2009.
- Launch of Rupay – a domestic card payment network in March 2012. Request of cheque book facility can also be availed by customer.

#### PAYMENT SYSTEM OF INDIA

To accomplish the vision of a less-cash society, if not cashless society, the key elements which would impact all our efforts towards creation of a modern and widespread payment system are: Accessibility, Availability, Awareness, Acceptability, Affordability, Assurance and Appropriateness (7 A's)

- ✓ **ACCESSIBILITY:** Access to formal payment systems, including e-payments as indicated above, is not available to sizeable sections of the society. In view of this cash is still the predominant mode of payment used in the country. It is therefore, necessary that access to the formal payment systems is made as easily available to all, as is the case with cash. Institutions and stakeholders must invariably focus on their own strengths and convenience of their products to make them more accessible.
- ✓ **AVAILABILITY:** Availability of the modern payment systems beyond the banking relationship has now been made possible through non-bank entities as well after the enactment of the Payment and Settlement Systems Act, 2007. This development has provided an enabling atmosphere to make available the formal payment systems to all segments of society. Notwithstanding this,

it is recognized that more sustained efforts in this regard are required to be taken by all the stakeholders.

- ✓ **AWARENESS:** The usage of a payment product is dependent on the customer being aware of the existence of such a product and its use as also the safeguards against its misuse. Therefore, it is necessary that awareness of various payment products is created through the innovative use of available mass media. Stakeholders, singly or as groups of common purpose, must make efforts to spread awareness in making both the urban and rural user (as user or beneficiary) aware of their payment products. Both regulators and the government can assist to widen this spectrum to wean away population from cash to less cash with attendant benefits of efficiency and better productivity.
  - ✓ **ACCEPTABILITY:** Availability and awareness of payment products will not lead to increased usage unless the payment product is accepted by all. The acceptability of formal payment channels including e-payments is based on the ease of use, convenience, interoperability, language neutrality and incentive factors associated with the particular mode of payment. Thus, a multi-pronged strategy is required to increase the acceptability of payment products from the regulators, government and stakeholders. Receivers of e-payments, in particular, need to be sensitized of the benefits of such receipts over cash/cheques.
  - ✓ **AFFORDABILITY:** The payment services, including the e-payment option, should be affordable to all segments of the society. Effective technology deployment and incentive structure should result in the creation of low cost payment products that encourage all customers and users towards their repetitive usage and cut down their dependency on cash.
  - ✓ **ASSURANCE:** It is an aspect which is related to trust in the products and processes and the security and authenticity relating to the transaction. For non-cash payments to proliferate, they should provide a high degree of comfort and offer an appropriate level of security in their repeated and regular usage with a zero-fail rate.
  - ✓ **APPROPRIATENESS:** Appropriateness is the combined effect of all the above features. The payment products should adapt to the social and cultural milieu and meet the needs of existing and prospective customers.
- Indian payment systems thus pose significant opportunities and challenges/ threats in the coming years. An indication of the scope of the challenges and opportunities can be gathered from the following few pointers:
- ✓ Of the six lakh plus villages in India, the total number of banking outlets in villages as at the end of March 2012 is 1.47 lakhs. In addition, RRBs have 34,000 plus outlets in villages. With financial inclusion gaining pace and the number of bank accounts increasing at a sustained pace, the number of transactions is likely to increase further as citizens start using the banking channel and the payment and settlement infrastructure. This 'bottom and the middle of the pyramid' presents a large untapped market.
  - ✓ Cash is the preferred mode of payment for those sections of society not having access to formal payment systems.

Electronic payments, even with an associated fee, can be less expensive compared to the available alternatives. The use of electronic payment instruments allows the unbanked to start building a transaction history, which can be a step towards initiating them towards financial inclusion. The lack of wide spread electronic payments infrastructure makes it difficult for the financial industry to deliver micro-version of payment products in a sustainable way.

- ✓ There is huge potential of migrating government transactions (payments and receipts) to electronic mode. It is estimated that Government subsidies alone constitute more than Rs. 2.93 trillion and if these payment are effected electronically, it may translate to 4.13 billion electronic transactions in a year. In addition, there is a large scope for further electronification of collection of Government receipts.
- ✓ A fraction of the 10 million plus retailers in India have card payment acceptance infrastructure needs to be grown exponentially. A "point of purchase" terminal has also been envisioned to ensure seamless e-payments to sellers of goods/farm products at wholesale markets and government procurement programs.
- ✓ The e-commerce and m-commerce platforms are poised for a big stride in coming years. As per the report on E-commerce released by the Internet and Mobile Association of India (IAMAI), internet commerce industry in India has been estimated to be Rs. 465.20 billion as at the end of 2011. Similarly, electronic bill presentment and payment involving insurance, utility bills, taxes, school fees, etc. present a huge opportunity.
- ✓ Currently, the number of non-cash transactions per person stand at just 6 per year. If the efforts of financial inclusion bear fruit and if each citizen of the country undertakes a minimum of one transaction in month, the total transaction in the country would reach an astronomical 12 billion transactions per annum.

#### INTERNET BANKING AND MOBILE BANKING: THE EMERGING TRENDS IN BANKING

**INTRODUCTION:** The use of internet today plays an important role in the life of a human being. Banks have traditionally been in the forefront of harnessing technology to improve their products, services and efficiency. They have, over a long time, been using electronic and telecommunication networks for delivering a wide range of value added products and services. Internet or E-Banking is the product of banking sector reforms in India, it is the first generation economic reforms which provides various technological innovations. The growth of internet and e-commerce has transformed the world into a global village.

**ELECTRONIC BANKING:** Electronic Banking is generally an extension of traditional banking, using the internet as an electronic delivery channels for banking products and services. Customers need not necessarily visit a branch to do banking transactions, where the banks provide them with tele-banking or remote banking facility. This type of banking is called Electronic Banking and this banking

channel is becoming popular with individuals as well as corporate entities in India.

**MEANING OF INTERNET BANKING:** Internet bank is the utilization of technology and electronic equipment to provide various type of banking services. The delivery channels include direct dial-up connection, private network, public network etc. and the devices include telephone, personal computer including the Automated Teller Machine, etc. Hence, internet banking is the automated delivery of new and traditional banking products and services directly to consumer through electronic, interactive communication channels.

Some of the distinctive features of Electronic Banking are:

- ✓ It removes the traditional geographical barriers as it could reach out to customers of different countries/ legal jurisdiction.
- ✓ It has added a new dimension to different kinds of risks traditionally associated with banking, high lightening some of them and throwing new risk control challenges.
- ✓ Security of banking transaction and customer privacy etc. is the major issue.
- ✓ It poses a strategic risk to those banks which are not modifying themselves according to the new technology.
- ✓ A new firm of competition has emerged both from the existing players and new players of the market who are not strictly bank.

#### THE GROWTH OF INTERNET BANKING AND SERVICE PROVIDERS

Internet Banking is a product of e-commerce in the field of banking and financial services. In what can be described as B2C domain for banking industry, internet banking offers different online services like balance enquiry, request for cheque books, recording stop payment instructions, balance transfer instructions, account opening and other forms of traditional services offers through internet as a new delivery channel. Banks are also offering payment services on behalf of their customers who shop in different e-shops, e-malls, etc. Particularly Bank offered these services through (a) ATM, (b) Electronic Fund Transfer, (c) Electronic Clearing System, (d) Debit/Credit card, (e) Telephone Banking, (f) Internet Banking, (g) Mobile Banking.

**ANY TIME BANKING:** ATMs have eliminated the time limitation of customer service, and offer a host of banking services, including deposits, withdraws, requisition, instructions and transfers. The customer need not be concerned much about the security, as most ATMs have security guards, and are located at safe convenient places, access to which is electronically controlled means of the customer ATM card. Besides, access to the account is through a PIN which is strictly supposed to be only known to the card holder.

**ANY WHERE BANKING:** With the introduction of ATMs and tele-banking, financial details can be accessed from remote locations and basic transaction can be effected even outside the bank. Inter-station connectivity of ATMs has also facilitated withdrawals from other places, a service particularly useful from frequent travelers. The facility of

using credit cards on ATMs is also available and more recently, mutual arrangements between banks are made for allowing the use of any bank ATM card on any other banks ATMs. With the implementation of RangaRajan Committee's recommendations, Government approval to set up ATMs at non branch locations like shopping Malls, offices, airports, etc. has revolutionized banking in the Indian context.

**HOME BANKING:** In the era of changing world banking customers are more affluent and technologically sophisticated than ever before. With lesser time available to conduct routine banking business, more and more of them have become comfortable with the idea of using machines for a wide range of banking services.

**PERSONAL BANKING:** By using tele-banking facility, customers can dial up the branch's designated telephone number, which is connected to the computer and, by dialing his identification number, will be able to get the connectivity to the branch designated computer. A customer can have access to his balance, and also can place order for statement of account, cheque book and a few selected services through his phone banking. The customers having wi-fi connectivity and a personal computer and have direct connectivity with the bank's computer through internet. They can update their account any time and from anywhere.

**CORPORATE BANKING:** Similarly, Corporate banking through remote banking has become very popular among big business and industrial corporate houses which are already automated. More and more banks are providing customer terminals right in the customer's office, which facilitate the customers to operate the account without physically coming to the bank. At present, by utilizing remote banking facility, corporate customers will be able to get the services like ordering their cheque books, ordering and transferring intra bank and interbank fund transactions, instructions for stop payments of cheques etc.

## MOBILE BANKING – THE EMERGING TREND

**INTRODUCTION:** Recognizing the potential of mobile as a channel for offering financial services in the country, the Reserve Bank issued the first set of guidelines on mobile banking in October 2008. The bank-led model was considered suitable for the country with a mandate to banks such that all transaction should originate from one bank account and terminate in other bank account. At this time, a few bank had already started offering information based services like balance enquiry, stop payment instruction of cheques, transaction enquiry, location of the nearest ATM/branch etc. through this medium.

The guideline issued by RBI in October 2008, permitted banks to facilitate funds transfer from one bank account to another bank account, both for personal remittance and purchase of goods and services. Banks were directed on the regulatory/supervisory issues, registration of customers for mobile banking, to ensure technology standards, interbank clearing and settlement arrangement for fund transfers, customer grievance and redressal mechanism and transaction limits in an attempt to ensure safe and secure transfer of funds.

In line with this guideline, banks have been offering mobile banking services to their customers through various

channels such as SMS, USSD channel, mobile banking application etc. However real time inter-bank mobile banking payment has been facilitated through the setting up of the interbank Mobile Payment Services, now termed as immediate payment service.

Mobile Banking basically has three channels:

- ✓ SMS based channel
- ✓ USSD based channel
- ✓ Application based channel
- ✓ **SMS BASED CHANNEL:** SMS is a popular and widely used channel in mobile phones. It is available in all handsets irrespective of make and model and also GSM and CDMA enabled handsets. Given the advantages offered by SMS channel, many banks have offered mobile banking through this channel, which includes non-financial services such as balance enquiry, mini statement, cheque book request, transaction alerts etc. and financial services such as fund transfer, mobile/DTH recharge, Bill Payments etc.  
In order to avail mobile banking services over SMS, customers needs to send the request with a keyword and parameters to SMS short code or long code number, for e.g. for balance enquiry, customer can send SMS BAL to 56677 (short code) or mobile number (long code). The request is sent to the respecting bank sender and customer receiver the response via SMS.
- ✓ **USSD BASED CHANNEL:** Unstructured Supplementary Service Data is a protocol used by GSM Cellular Telephone to communicate with the telecom service providers systems. USSD can be used for WAP browsing, prepaid call back services, mobile money services, location based content services, menu based information services and as part of configuring the phone as the network, USSD messages are up to 182 alphanumeric character in length. Unlike short message service (SMS), USSD message create a real time connection during a USSD session. The connection remains open, allowing a two way exchange of a sequence of data. This makes USSD more interactive and advantageous than services that use SMS.
- ✓ **APPLICATION BASED CHANNEL:** All banks who have received the approval from RBI for mobile banking are offering the application-based mobile banking channel to their customers. Customers can download the mobile banking application and perform variety of services including the following:  
Non-financial transaction such as Balance enquiry, mini statement, cheque book request.  
Financial transaction such as fund transfer, mobile/DTH recharge, bill payments etc.  
The mobile application is offered on various platforms such as java, black berry, OS, Windows, Android, Apple /OS etc. Many banks have made the mobile application available in the app store such as google, Apple, Black Berry etc. for easy search and download by the customers.

## MOBILE BANKING

As part of the agenda for 2014-15, it was planned that efforts would be made to provide a fillip to mobile banking



undertake necessary groundwork to put in place standards for customer on-boarding, security of transactions and redressal of customer grievances, besides engaging with stakeholders to explore the feasibility of having a standardized application for mobile banking across banks. The Reserve Bank issued necessary guidelines to banks in December 2014 to enhance the usage of mobile banking in the country. Banks were advised to provide their customers options for easy registration for mobile banking services, through multiple channels ATMs, thereby minimizing the need for branch visit to avail such services. NPCI is in the process of facilitating mobile banking registration at ATMs on the National Financial Switch (NFS) network. Similarly, NPCI was advised with regard to setting standards for industry agreements between banks and mobile network operators (MNOs) for handling customer grievance, particularly in the context of the National Unified USSD (Unstructured Supplementary Service Data) Platform (NUUP).

#### TRADE RECEIVABLES DISCOUNTING SYSTEMS (TReDS)

In order to provide quick and efficient financing options for the micro, small and medium enterprises (MSME) segment, it was proposed to set up an electronic TReDS to bring together the MSME, their corporate buyers as well as financiers and reduce the constraints faced by the MSME segment in liquidity management. The participants in the TReDs will be corporate buyers, including government departments and public sector undertakings (PSUs). The system will also facilitate factoring of both receivables as well as payables. Accordingly, policy measures were taken towards setting up TReDS. Seven applications received to set up TReDS are being scrutinised for consideration of their authorization during 2015-16 under the Payment and Settlement Systems (PSS) Act, 2007.

#### BHARAT BILL PAYMENT SYSTEMS (BBPS)

The guidelines for BBPS were issued in November 2014 as per the agenda for 2014-15. BBPS is being set up by NPCI as a pan-india integrated bill payment system under the PSS Act, 2007 offering inter-operable and accessible bill payment services to customers through a network of agents. It is expected to address the problems faced by consumers who required to use multiple options (as put in place by respective billers) to meet their bills payment requirements. The process of authorization of NPCI to act as a Bharat Bill Payment Central Unit (BBPCU) and authorization of Bharat Bill Payment Operating Unit (BBPOU) will be completed during 2015-16.

The ECS suite and NACH provide similar services. As envisaged in the agenda for 2014-15, consolidation of these payment systems has commenced from December 2014 with migration of volume from the ECS suite to NACH and thus, almost all participants are on the board in the NACH system.

#### DIGITAL BANKING

Indian Finance Minister, in his budget speech, talked about the idea of making India a cash less society, with the aim of curbing the flow of black money moving towards a cash less society implies that all transaction have to be through electronic channels. Such as direct debit, credit and debit cards, electronic clearing and payment systems such as Immediate Payment Service (IMPS), National Electronic Fund Transfer (NEFT) and Real Time Gross Settlement (RTGS), in India.

India continues to be driven by the use of cash; less than 5% of all payments happen electronically. This is basically due to a large part of the population being financially unbanked as well as cash being the only mean available for many. Large and small transactions continue to be carried out in cash. When A. T. Kearney surveyed Consumer Behaviors at malls, it found that close to 90% transaction happened by cash. E-tailors give the cash on Delivery (COD) facility to expand consumer base. While the population of people opting for COD is decreasing, it still accounts for 60% of transaction. Transition to a cashless society will help in improving customer service as well as curb the movement of black money.

Digital India Initiative highlights the intention of Government of India for increasing participation by the citizen's in digital and financial space through mobiles and banking. The initiative will try to ensure that all financial transactions above a certain threshold limits are made electronic and cashless. In the financial space, Deity has collaborated with NDDL database Management Limited for providing PayGov. PayGov is centralized platform facilitating all government departments and services to collect online payments from citizens for Public Services. It also offers an end to end transactional experience for citizens who opt from various payment option, such as Net Banking, debit card, credit card, cashless/prepaid cards/wallets and NEFT/RTGS etc.

For years, Government schemes have failed to sustain because of the leakages in the delivery system. Electronic fund transfer will ensure delivery to the intended beneficiary directly without the middleman. PayGov India is securely integrated with National and State Service Delivery Gateway to enable sharing of information across databases for efficient service clearing, and with the mobile services delivery gateway India mobile service.

#### CONCLUSION

Efficient and Secure Payment and Settlement System are essential components of a well developed financial system. The Department of Payment and Settlement Systems being the nodal wing of the Reserve Bank in matters of Payment and Settlement Systems, focusing towards migrating to a less cash society and in enhancing the efficiency and security of electronic transactions. While at the same time improving convenience of operations the another key area of focus was enhancing access to finance through strengthening the inter operable Payment System infrastructure and putting in place a firm legal basis for Payment System activities in confirming

with international standards. With a view to ensuring seamless financial transactions, the Reserve Bank has been leveraging technology to upgrade the Payment and Settlement System as a continuous basis over the years, resulting in a gradual shift from cash and paper based transactions to electronic modes of payments. The Reserve Bank while taking all these steps, recognized developments in technology and provided a facilitating environment for innovations in the payments sphere.s.

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