



E-Banking and Cheque Truncation System (CTS)

KEYWORDS

INFINET, Electronic Fund Transfer (EFT) Automatic Teller Machine (ATM), Electronic Fund Transfer (EFT), Personal Computer Banking (PCB), Shared Payment Network Systems (SPNS), Point of sale Terminal, Electronic Data Interchange (EDI)

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ABSTRACT *The emergence of e-commerce facilitated the growth and expansion of internet information, technology, banking sector and financial activity. Automatic Teller Machine (ATM), Electronic Fund Transfer (EFT), Personal Computer Banking (PCB), Shared Payment Network Systems (SPNS), Point of sale Terminal, Electronic Data Interchange (EDI), Structured Message Transfer System using Swift, Corporate Banking terminal and Telebanking are the innovative outcome of e-banking. The automation of the existing banking system can eliminate voluminous paper work and improve operational efficiency. Almost everything that can be attended to via traditional method can be transacted electronically for which different techniques are available. Technology has come to play a significant role in the development of newer modes of payment and settlement. To achieve this end, innovative techniques such as e-banking and e-payments like cheque truncation system have been adopted.*

Introduction:

Rapid technological advances during the last couple of years have changed the face of the banking industry considerably. E-banking evolved in the mid 1990s when the internet started gaining popularity. The internet served as an ideal platform for commercial exchange helping banks to achieve higher efficiency in financial transactions and strengthened customer relationships, promoted price discovery and ensured wider reach. E-banking offers better opportunities to banks to expand their client base and rationalize their business while their customers receive value in the form of savings in time and money.

Globalization and increased competition are trends that have shaped the banking industry for decades. The expansion of e-banking will contribute to those trends in the telecommunications and data processing. E-banking will also accelerate the on-going process of financial deepening and change the structure of the bank.

Consumer spending via internet is increasing at significant rate. Progressively more groups and organizations sense that internet can be used to facilitate development by taking advantage of its easy access to information and the transfer of technology. Increased competition in the banking sector and customer demand is forcing banks to provide their services on line. (Southord, P&Siau, K. 2004)

Analysts claim that E-banking holds lots of potential with the emergence of growing internet awareness among customer's integration of banking services with e-commerce services, increasing reach of the internet and the entry of global players in the banking sector.

The face of banking is changing rapidly. Competition is going to be tough and with financial liberalization and reforms every bank in India will have to benchmark themselves for survival in the world. Further, the success of the banking industry depends largely on the services provided to their customers.

Concept of E-banking:

Introduction and development of E-banking began in the 1990s (Pikkarainen et.al. 2004). A research conducted in USA during 1999 revealed that there had been huge increases in the use of e-banking in America. Examining the development of on-line banking in the world one can say that European countries are at the top in the use of newest banking technologies and on-line banking. (Pyun et.al. 2002, p. 73)

Another study shows that less than 15 percentage of banks with transactional website will realize profits directly attributable to those sites (courchanne et.al. 2002).

E-banking is a web-based service that enables the banks to authorize customers to have access to information regarding their accounts. It allows the customers to log on to the banks website with the help of a bank-issued identification and Personal Identification Number (PIN). The banking system verifies the user and provides access to the required services. The range of products offered by each bank on the internet differs widely in their content. E-banking has also led to the emergence of new banks, which operate only through the internet and do not exist physically. Such banks are called 'virtual' banks or 'internet only' banks.

E-banking has enabled banks to increase their data collection and management, efficient financial engineering that have improved the ability of assessing potential creditors, measuring the credit worthiness of potential borrowers and to price the risk associated with those borrowers through standardized mechanism such as credit scoring (Zigi & Michael 2003, P. 248).

Where banking operations are carried out through electronic means, it takes the form of e-banking. Electronic means of banking includes electronically operated devices such as computers ATMs and in addition, internet, telephone, Mobile handsets and other means are also used as part of e-banking. An essential feature of e-banking is that it provides round-the-clock access to banking operations.

E-Banking (Electronic banking) provides 24-hour access to cash through an Automated Teller Machine (ATM) or direct deposit of Pay-Cheques into chequing or savings accounts of a bank. However, in modern times, electronic banking involves different types of transactions.

Electronic banking takes place through 'Electronic Fund Transfer' (EFT). The EFT uses computer and electronic technology as a substitute for cheques and other paper transactions. EFTs are initiated through devices like cards or a code that lets access to account happen. For this purpose, banks use ATM or debit cards and personal Identification Number (PIN). In addition, digital signature or Scan is also used for gaining access to account.

E-Banking - Indian Scenario:

Technology has come to play a significant role in the realm

of development of newer modes of payment and settlement. Towards this end, innovative techniques such as e-banking and e-payments have been introduced.

E-banking is the process of banking with the use of electronic tools and facilities. The service based areas of activity of banks have perhaps been the largest beneficiaries of e-banking. Internet banking has been the predominant mode of e-banking in India with the internet offering itself as a new delivery mechanism for banks in reaching the customer.

According to the traditional method of banking operations, the customer has to visit the bank in person to withdraw the cash and transfer fund, whereas in the innovative banking system, the customer need not go to the bank. These transactions are based on internet and the customer can have access to the bank at any time from his office or home through PC or Laptop by eliminating paper based transaction. Modern banking tends to be more information speeding as an impact of e-revaluation. Thus the e-banking technology is adopted in day today transactions by the customers to have access to their banking services electronically whether it is for payment of bills, transfer of funds or retrieve information and provide services. The electronic services that are made available to the customers are through phone, Personal computer, television and internet. There are important elements, which are collectively considered as e-banking. They are : transforming core business that is, offering services, building flexible and expandable e-Banking applications, running scalable, available ,safe environment by providing security and leveraging knowledge and information through e-Banking.

E-banking enables quick settlement of bills, transactions at less cost, elimination of middle men, lower manpower cost and quicker order execution. It provides flexibility of time, place and distance, wider choice of selection to the customers. It is easy to get in touch with customer globally and settle their accounts quickly and thus promote the business.

Banks in India stand immensely benefited by implementing bank related e-technology applications. Thanks to the satellite based communications network, Indian Financial Network (INFINET) is expected to accelerate transmission of information in the Indian banking industry.

RBI constituted a working group on internet banking. The group divided the internet banking products in India into three types based on levels of access granted:

Information only system
Electronic information Transfer system
Fully Electronic Transactional system

The Government of India and RBI have taken a number of initiatives to the advantage of electronic architecture for Indian Banks. They are:

- Generic Architecture
- INFINET (The Indian Financial Network)
- Payment System
- Negotiated Dealing System (NDS)

Payment system:

Payment system using information technology tools was implemented by RBI with the introduction of Magnetic ink character Recognition (MICR). The thrust has been to reduce time taken for the settlement of clearing process.

An efficient payment system plays an important role in the development of the financial sector. The Electronic clearing service (Debit and Credit) and Electronic Fund Transfer System (EFT) are two new payment systems, which have been introduced by banks to expedite payments electronically. The EFT was launched by RBI in the year 1995 which allows for the instantaneous transfer of funds between banks and among banks through the electronic mode. A convenient way of making a purchase or paying for a service without

holding cash or not having to go through the process of completing a cheque and producing some form of acceptable identification is called an electronic payment system.

The payment methods adopted in an electronic payment investment is Digital Cheques. An electronic payment device that involves the use of networking services whereby the e-customer issues, digital cheques to merchant malls to settle transactions carried over the internet is called 'digital cheque'.

Cheque Truncation System:

RBI is considering replacement of the existing system of settlement of payment on the basis of physical cheques by a new procedure called 'cheque Truncation System' (CTS). It is an online image based cheque clearing system where cheque images and Magnetic Ink Recognition (MICR) data are captured at the collecting bank branch and transmitted electronically without the actual cheque movement.

Cases of delay in settlement of cheques, especially in inter-city cheques, are not uncommon in India. Cheque Truncation System (CTS) is one way to compress the clearing cycle in order to provide faster clearances of local and intercity cheques. Cheque truncation is the process in which the physical movement of cheque with in a bank, between banks or between banks and clearing house and clearing house is replaced by electronic records. Implementation of CTS would bring all the participating banks to a common platform in the cheque processing operations.

Settlement of cheques in India is on the basis of physical presentation of paper based cheques to the clearing houses for transmission to the drawee banks and for payment thereafter. The traditional method of cheques clearing necessitates transport of the paper based cheques and the consequent time involved in their processing at various intermediary levels is longer. The difficulty arises in case of outstanding cheques where clearance takes longer realization period, especially in geographically large country like India and cases of delay in credit by more than a fortnight are not uncommon

Cheque truncation is one of the ways to compress the clearing cycle to provide faster clearances of local and intercity cheques. Banks, in countries like Singapore are actively reviewing their back room processes with a view to automating them and integrating them with CTS. This would enable the banks to enjoy greater efficiency and provide better service to their customers. Ultimately, the implementation of CTS would raise all participating banks to a higher and common platform in their cheque processing operations.

Truncation Process:

When customers deposit their cheques to the collecting banks, digital images of cheques called truncated cheques will be generated and the collecting banks or the clearing House will capture electronic information. Truncated cheques will then be presented to the drawee banks electronically for verification. The collecting banks or the clearing house will retain truncated cheques but drawee banks are still able to examine the physical versions of Truncated Cheques to assist them in making the payment decision as required.

Cheque imaging and truncation form a part of the cheque clearing process. There will be no change to the current practice pertaining to the writing of cheques by payers, the deposit of cheques by payees, the schedule of making funds made available by banks and returning of unpaid cheques to payees.

Customer may request the drawee banks to produce copies of truncated cheques. Customer may also ask the drawee banks to retrieve the originals of their paid Truncated Cheques during the industry-wide prescribed cheque retention period. After the expiry of the period, the originals of the truncated cheques will be destroyed but customers will still be able to obtain copies based on the images of truncated

cheques.

Image Return Document:

An Image Return Document (IRD) Serves as a notice of dishonor and replaces the original cheque for the purpose of representment for clearing under the cheque Truncation system. It is a one page document containing the following details:

- Reason for dishonor of cheque
- Eligibility for representment
- Requirements for obtaining a new cheque from the drawer
- Validity period of the IRD
- Number of times represented

The IRD is a necessary component because the CTS removes the physical cheque from the clearance process once it is presented at the presenting bank. The IRD will be printed on paper that contains the CTS water mark. It will also be socialized and controlled strictly by the participating banks. As a banking practice, IRDs will not be accepted if it is mutilated, altered or torn. Furthermore, information on the IRD will be matched against the information in the CTS before representment, thus eliminating the possibility of unauthorized alterations and other fraudulent methods of dealing.

Truncation models:

There are three generic models:

'Image cash letters'- flow from the collecting bank to the paying bank.

'Image to Follow'- model, data flows to the paying bank and the images follow latter.

'Image on Request' -Model, payment is based on data and the paying bank can selectively request images of the cheques.

For data and image exchange, three models exist viz., Peer-to-Peer Model, Clearing House Model and Hybrid Model. In the Peer-to Peer Model, cheque and image data moves bilaterally between collecting and paying banks. In the Clearing House Model, the Clearing House acts as an intermediary for data and image flow between the collecting and the paying bank. The Hybrid Model is a combination of both the above models.

For archive purposes, three models are prevalent viz., Distributed, Centralized and Hybrid. In the Distributed Model, the cheque data and images are archived at the collecting and the paying bank. In the centralized Model, the clearing House acts as a Hub. In Hybrid Model, the archive is available at the collecting bank, the Clearing House and the paying bank.

Risks in Truncation

Truncating cheques entail additional operations risks. The presenting bank has to ensure the MICR data and the images are thoroughly scrutinized before they are sent to clearing house. This is very essential as the entire clearing process at clearinghouse is based on this data only and the drawee bank has to verify the signature on the basis of image of a cheque. Any inaccuracy in the data may result in payment of forged instruments.

While making payment, especially for high-value instruments banks will have to take adequate measures to ensure all necessary safeguards which are provided for in consonance with legal requirements and banking practice .

Cheque Truncation in India:

The passing of the Negotiable Instruments Amendment Act 2002 (NIAA 2002) in the Parliament has also brought about a significant change to the Information Technology Act 2000 (ITA-2000) bringing Cheques within its purview. The amendment has brought in two concepts of digital cheques mirror image of a cheque digitally signed and the concept of truncated cheque. The provisions relating to the protection available to the paying and collecting bankers against the risks of cheque truncation have been addressed by further amendments to the Negotiable Instruments Act.

Reserve Bank of India has constituted a Working Group, under the chairmanship of Dr. R.B. Barman, Executive Director, to suggest an appropriate model for Cheque Truncation, suitable to the Indian conditions. It was entrusted with the task of studying the various aspects of cheque truncation and e-cheques and work out the models, which could be adopted for the country. During July 2003, the group has submitted its recommendations on the mode of truncation, preservation period of the physical cheques, storage location of cheque images and the security requirements for the flow of cheque data and images over the different banks' and clearing house networks. The implementation of the recommendations of the Working Group would surely go a long way in tapping the electronic payment and clearing systems of the country.

Conclusion:

To conclude, cheque truncation is a logical progression/evolution of cheque processing from handsorting to MICR, and from MICR to imaging. With adequate security measures, it ensures the establishment of a safe, secure, efficient, and robust and Integrated Payment and Settlement System, with thrust on electronic modes of payment and settlement.

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