

Increasing Trends in Usage of E-Banking Payment Systems by Bank Customers



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Indian banking system has undergone transformation from paper based manual clearing payment systems to e banking technology based payment systems This journey which started three decades ago with Introduction of MICR Clearing replacing manual clearing systems continues to develop advance banking technology based Payment systems and reflecting paradigm shift in bank customers with increase usage of the same With the increasing banking habits of the customer due to focus on 100 financial inclusion for providing the basic banking services to all by Reserve bank of India

Keywords: Micr Clearing, Cheque Truncation System, E Banking, Mobile banking, Reserve Bank of india

1. Introduction

Indian banking system has undergone transformation from paper based manual clearing payment systems to e banking technology based payment systems. This journey which started three decades ago with Introduction of MICR Clearing replacing manual clearing systems continues to develop advance banking technology based Payment systems and reflecting paradigm shift in bank customers with increase usage of the same. With the increasing banking habits of the customer due to focus on 100% financial inclusion for providing the basic banking services to all by Reserve bank of India and the present government ,lot of initiatives have been taken by providing new license to small and payment banks . With financial literacy awareness and the focus on savings through various channels have enabled the customer to not only open the accounts but it has been observed that there have been increasing trends of e banking and plastic money instrument instead of cash and cheques. This case explain the benefits of e banking over the cash and cheques in terms of cost as well as risk involved. Payment System is like a blood and arteries of any economy and its financial system as it bridge the gap between the borrowers and lenders , financial institutions and includes various types of financial instruments and various channels to ensure the safe , secure , accurate and efficient customer services.

2. Overview of E Banking Payment Systems

Mobile banking ,Internet banking , cheque truncations system , RTGS ,ECS and EFT are the game changer and responsible for bringing technology revolution in Indian Banking System as well as paradigm shift in customers from cheques to e banking.

E-Banking Includes

- Internet Banking
- Cheque Truncation Payment System
- Electronic Funds Transfer System
- Investment Through Internet Banking
- Automated Teller Machines
- Debit Cards □ Credit Cards
- Querying The Account Balance
- Bill Payment Service
- Applying For/Claiming Insurance
- Smart Cards
- Mobile Banking

2.1 Mobile Banking is increasingly used as delivery channel for marketing banking services. In mobile banking the short messages will be sent to the customers for the transactions made with the banker and also the customer is allowed to make enquiries relating to his account by sending Short Messages services. Mobile banking is a service which will allow doing banking transactions on mobile phone without making a call or simply using the SMS facility.

The following are the benefits of Mobile banking:

1. Balance enquiry of all accounts which is linked to Customer Identification Number.
2. Requesting for a Cheque book
3. Requesting a Account statement
4. Cheque status enquiry
5. Fixed deposit enquiry

6. A help menu, which gives the transaction codes for the various transactions.

Mobile banking will keep us competitive in rural area; it helps in increasing deposits, decrease cost to service and increases margins. If mobile banking is implemented properly it would be more secure than internet banking.

2.2 Internet Banking: Internet banking is a platform for electronic delivery of banking services to the customers. Internet reduces the cost of handling and operating cost of the banker and the customers. This is more cost effective and more efficient only by adoption of wireless technology. The services that are provided over net banking are account enquiry, balance enquiry, remittance of funds, settlement of accounts, issue of cheque books, etc. So I being a branch manager would initialize internet banking so as to improve the efficiency of the bank. Internet banking has the following benefits:

1. Improve customer Access
2. Facilitate the offering of more services
3. Increase customer Loyalty.
4. Attract new customers
5. Provide services offered by competitors
6. Reduce customer Attrition.

Internet banking facilities offers many features and capabilities, but also has some that are application specific.

The common features fall broadly into several categories:

- A bank customer can perform non-transactional tasks through online banking, including – V
- Viewing account balances
- Viewing recent transactions
- Downloading bank statements, for example in PDF format
- Viewing images of paid cheques
- Ordering cheque books
- Download periodic account statement
- Downloading applications for M-banking, E-banking etc.
- Bank customers can transact banking tasks through online banking, including –
- Funds transfers between the customer's linked accounts
- Paying third parties, including bill payments (see, e.g., BPAY) and third party fund transfers(see, e.g., FAST)
- Investment purchase or sale
- Loan applications and transactions, such as repayments of enrolments
- Credit card applications
- Register utility billers and make bill payments
- Online banking account is easy to open and operate. The online services offered might differ from bank to bank, and from country to country. Always go through the welcome kit that you get at the time of opening the account. You also get the password to access your online account, which you are supposed to keep with great care for security reasons.

The common online services offered by banks are:

- Transactional activities like funds transfer, bill pay, loan applications and transactions.
- Non-transactional activities like request for cheque book, stop payment, online statements, updating your contact information.

The widespread use of internet has encompassed everything under it including purchasing, selling, learning and even banking. Online banking is highly popular these days and for all the right reasons. The post below describes the many reasons behind the increasing preference for internet banking off late.

The most significant benefit of online banking is that here you would be able to conduct the entire banking process from your home only. There is no need to stand waiting in the long queues before bank counters for your turn. The entire process of internet banking is designed to save a great deal of time and energy. Online banking runs 24/7 and hence you won't have to schedule your time as per the conventional bank hours, sacrificing on your professional obligations.

It's good to inform that banking online enables you to perform almost all the banking jobs from your home's comfort. These include money transfer, altering or getting account information, ordering credit cards, paying bills or even applying for loans. Security of a customer's financial information is very important, without which online banking could not operate. Financial institutions have set up various security processes to reduce the risk of unauthorized online access to a customer's records, but there is no consistency to the various approaches adopted.

2.3 Cheque Truncation System is the process of stopping the physical movement of cheques. As per the amended Negotiable Instruments Act 1881, in cheque truncation, the movement of the physical instrument is stopped and replaced by electronic images and associated MICR line of the cheque.

Cheques remain a popular form of payments in India even with the increased availability of alternate payment channels. RBI continues to classify paper clearings as a System-Wide Important Payment System (SWIPS) due to the high volumes of transactions. Cheque Truncation speeds up collection of cheques and therefore enhances customer service, reduces the scope

for clearing related frauds, minimizes cost of collection of cheques, reduces reconciliation problems, eliminates logistics problems etc.

With the other major product offering in the form of RTGS, the Reserve Bank created the capability to enable inter-bank payments online real time and facilitate corporate customer payments. The other product, National Electronic Funds Transfer, is an electronic credit transfer system. However, to wish away cheques is simply not possible and that is the reason why the Bank decided to focus on improving the efficiency of the Cheque Clearing Cycle. Cheque Truncation is the alternative. Moreover contrary to perceptions, Cheque Truncation is a more secure system than the current exchange of physical documents in which the cheque moves from one point to another, thus, not only creating delays but inconvenience to the customer in case the instrument is lost in transit or manipulated during the clearing cycle. In addition to operational efficiency, Cheque Truncation has several benefits to the banks and customers which includes introduction of new products, re-engineering the total receipts and payments mechanism of the customers, human resource rationalization, cost effectiveness etc., Cheque Truncation thus is an important efficiency enhancement initiative in the Payments Systems area, undertaken by RBI

2.4 Real Time Gross Settlement System

- An inter-bank fund transfer system (settlement)
- Settling funds on a transaction by transaction basis (gross)
- As and when the transactions are triggered (real time)
- Assuring finality of settlement (irrevocable funds transfer)
- Primarily catering to large value funds transfer between banks

In RTGS , Settlement of interbank payment systems is real time on online mode – one by one , on gross basis with intra day finality. Its a Debit Push Transactions , can be Interbank or Customer , Individual Queue Based Model , Routed Through RBI and each bank can view its Payments and Receipts

2.5 National Electronics Funds Transfer System

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. Individuals, firms or corporates maintaining accounts with a bank branch can transfer funds using NEFT.

Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT. However, such cash remittances will be restricted to a maximum of Rs.50,000/- per transaction. Such customers have to furnish full details including complete address, telephone number, etc. NEFT, thus, facilitates originators or remitters to initiate funds transfer transactions even without having a bank account.

There is no limit – either minimum or maximum – on the amount of funds that could be transferred using NEFT. However, maximum amount per transaction is limited to Rs.50, 000/- for cash-based remittances within India and also for remittances to Nepal under the Indo-Nepal Remittance Facility Scheme. Presently, NEFT operates in hourly batches - there are twelve settlements from 8 am to 7 pm on week days (Monday through Friday) and six settlements from 8 am to 1 pm on Saturdays.

The beneficiary can expect to get credit for the NEFT transactions within two business hours (currently NEFT business hours is from morning 8 AM to evening 7 PM on all week days and from morning 8 AM to afternoon 1 PM on Saturdays) from the batch in which the transaction was settled.

2.6 Electronic Clearing Service –Debit and Credit

ECS is an electronic mode of payment / receipt for transactions that are repetitive and periodic in nature. ECS 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 instalment repayments, periodic investments in mutual funds, insurance premium etc. Essentially, ECS facilitates bulk transfer of monies from one bank account to many bank accounts or vice versa. ECS includes transactions processed under National Automated Clearing House (NACH) operated by National Payments Corporation of India (NPCI). Primarily, there are two variants of ECS - ECS Credit and ECS Debit. There is no value limit on the amount of individual transactions.

3. Data Analysis

Payment & Settlement System Indicators				
Volume		Million		
Year /month	2014-15	Jun-15	Jul-15	Aug-15
Cheque Truncation System	964.86	79.35	83.89	78.85
Mobile Banking	171.92	21.82	24.96	25.15
Credit Cards	619.41	60.89	65.24	66
Debit Cards	7804.57	721.91	750.14	769.19
Source : RBI Bulletin Oct 2015				

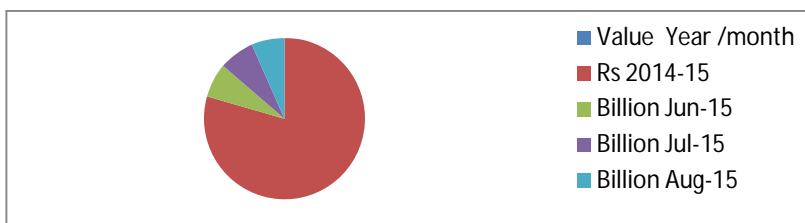


Figure 1 Payment System Volume

Payment & Settlement System Indicators				
Value	Rs	Billion		
Year /month	2014-15	Jun-15	Jul-15	Aug-15
Cheque Truncation System	66769.93	5833.21	5966.83	5530.43
Mobile Banking	1035.3	221.17	235.71	217.93
Credit Cards	1922.63	176.89	198.48	201.57
Debit Cards	23492.65	2188.34	2217.92	2209.98
Source : RBI Bulletin Oct 2015				

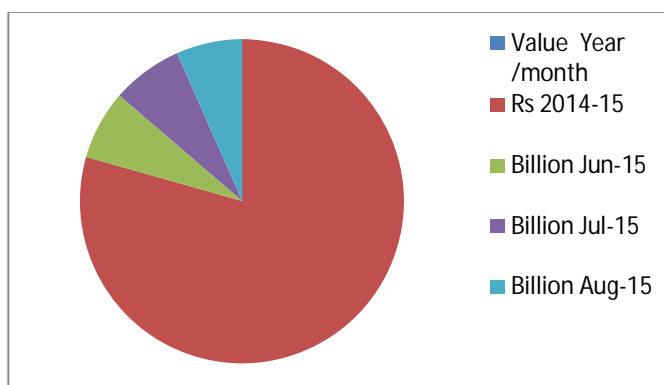


Figure 2 Payment System Values

Payment System Indicators				
		Volume	Million	
Year	2014-15	Jun-15	Jul-15	Aug-15
RTGS				
Customer Transaction	88.39	7.88	7.87	7.46
Interbank Transaction	4.38	0.38	0.38	0.37
Interbank Clearing	0.0012	0.001	0.001	0.001
Total	92.7712	8.261	8.251	7.831
ECS DR	226.01	19.11	19.34	18.69
ECS CR	115.35	3.02	3.7	3.29
NEFT	927.55	91.22	103.11	95.94
	Rs.	Value	Billion	
RTGS				
Customer Transaction	631050	64280	59710	55602
Interbank Transaction	122981.6	9900	9180	8773
Interbank Clearing	175300.7	18950	17980	16519
Total	929332.4	93130	86870	80895
ECS DR	1739	149	151	149
ECS CR	2019	86	104	82
NEFT	59803	6324	6289	6153

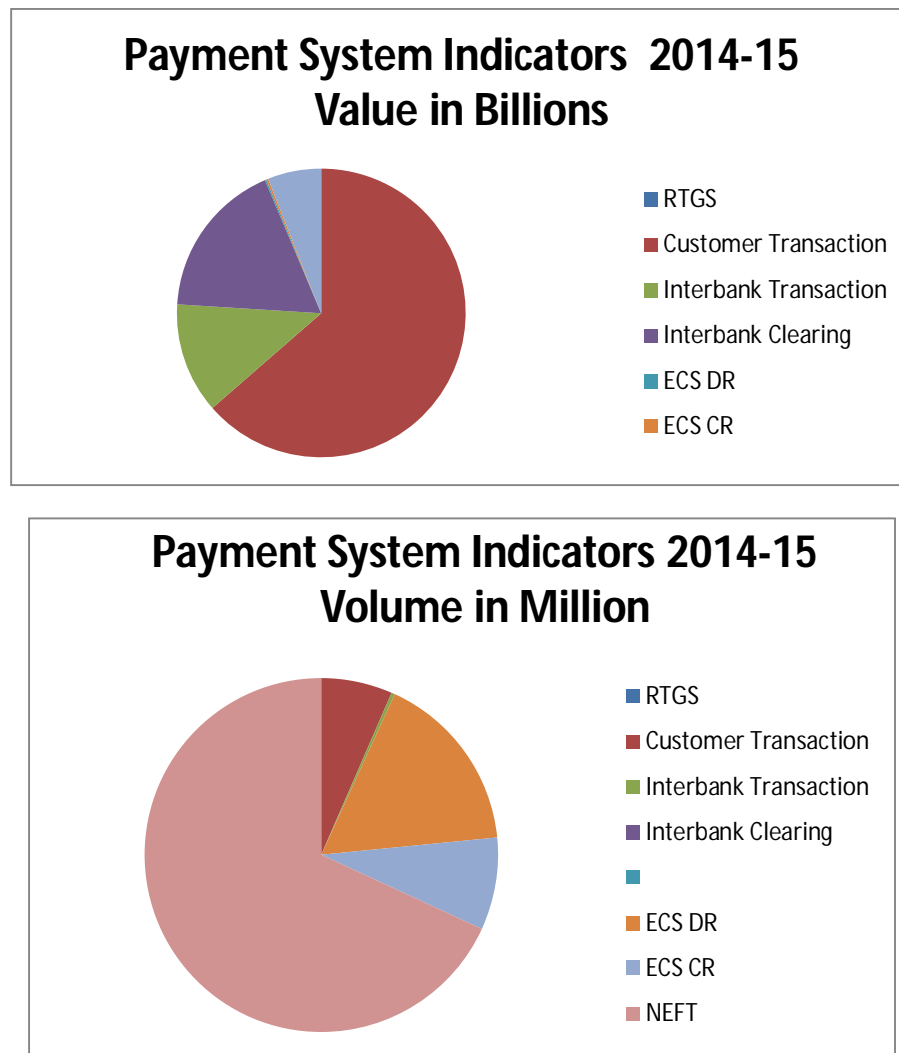


Figure 3 RTGS, ECS & EFT Values and Volumes

- Both volume and values of Cheque Truncation System and Mobile banking are increasing. But trends reflect that cheque volumes and values of CTS are declining and customer is shifting more to RTGS and NEFT.
- Though usage of both debit and credit cards are increasing but Debit Card usage volumes are much higher as compared to credit cards which indicates the bank customers have realized the higher rate of interest on outstanding credit cards balances where as in debit card no overdrawn amount allowed and hence no interest
- The above trends reflects that customers are now using more e banking facilities instead of issuing cheques because of convenience and risk management..

4. Learning Outcome

To bring any change or innovation and improvements in processes and procedures to open up the economy for globalization and liberalization , there need to be change in the existing laws ,process and procedures , introduction of advance technology and creating customer awareness , financial literacy , financial inclusion and research .

The above mentioned transformation in E Payment system have been possible when all the stakeholders like Reserve bank of India , Government of India , National Clearing Cell, Customers ,IDRBT and NPCI have together taken various initiatives to make Indian banking robust technology and risk management.

Important learning from this case is that it is very difficult to change the perception and attitude to bring paradigm shift in the banking and financial habits of customer so best solution is to bring new processes against the old processes and when people see the benefits , gradually they shift to new processes. ..

5. Teaching Notes

- Explain to the students of Evolution of Indian Payment Systems.
- Post-Independence**

- The nationalization of Banks in two trenches' in 1969 and 1980 – this helped many locations to have clearing process managed either by State Bank of India or one of the leading nationalized banks in the locality and even today all the clearing centers in India are managed by RBI, SBI or a Nationalized Bank. This provided a basis for cheque clearing in India on a much larger scale and bought several locations on the systemic clearing and settlement process.
- Implementation of MICR based cheque clearing in Mumbai in 1986, Chennai and Delhi in 1987 and Calcutta in 1989. (MICR based started in USA in 1959)
- Arrival of card based payments - *debit card, credit card* – late 1980's and early 1990's
- Introduction of Electronic Clearing Service (ECS) in late 1990's
- Introduction of Electronic Funds Transfer / Special EFT (EFT/SEFT) in the early 2000's
- Introduction of Real Time Gross Settlement System (RTGS) in March 2004.
- Introduction of NEFT as a replacement for EFT/SEFT in 2005/2006.
- Implementation of Cheque truncation system in FEB 2008 as a pilot in New Delhi and then other centres and new RTGS with enhanced features (October 2013).
- The second factor authentication for the 'card not present' transaction, the first of its kind in the world, introduced by RBI (February 2009.)
- Launch of RuPay – a domestic card payment network (March 2012)

2. Explain the Meaning of Key Words.

- RTGS : Real Time Gross Settlement –On Line Payment System for Large value payments – Above Rs 2 LACS – Immediate Credit – Debit First
- NEFT : National Electronic Funds Transfer – Any Amount
- CHIPS : United States Private Clearing House Interbank payment System
- CHAPS: UK Clearing House Automated payment System,
- IFSC: IFSC or Indian Financial System Code is an alpha-numeric code that uniquely identifies a bank-branch participating in the NEFT system. This is an 11 digit code with the first 4 alpha characters representing the bank, and the last 6 characters representing the branch. The 5th character is 0 (zero). IFSC is used by the NEFT system to identify the originating / destination banks / branches and also to route the messages appropriately to the concerned banks / branches,
- MICR is an acronym for Magnetic Ink Character Recognition. The MICR Code is a numeric code that uniquely identifies a bank-branch participating in the ECS Credit scheme. This is a 9 digit code to identify the location of the bank branch; the first 3 characters represent the city, the next 3 the bank and the last 3 the branch. The MICR Code allotted to a bank branch is printed on the MICR band of cheques issued by bank branches.

3. Comparison of Indian Payment System with Global payment Systems of USA , UK ,China and Europe.,

6. Questions for the Discussions

1. Why so many payment systems exist in Indian banking System :
2. What are the advantages of CTS as Compared to MICR Clearing
3. What is the role of national payment council of India in handling large value payment system ?
4. Can we expect Indian banking payment system as checkless by 2020 with a vision of 100% automation in payment systems.
5. RTGS is a real time gross settlement system where as the CTS ,MICR Clearing ,ECS and EFT are the net deferred settlement system . Please explain.

7. Conclusion

- All electronic payment options in India are growing – there is good support from all the participants.
- Adoption of electronic payments brings about all around benefit to all participants and the economy itself. It brings 'cash' into the banking system.
- Innovation, convenience, cost, awareness, legal supports are the factors that will accelerate the enhanced usage of electronic payments.
- Anticipating customer needs and be ready is more important today... rather than just understanding the needs...
- Our payment system vision should be 'Where ever a Physical Cheque can get processed, electronic funds transfer should also reach.'
- We have the opportunity to provide the 'Best in the World' E payment system for our customers if we can make NEFT run true 24*7.