

## Online Financial Transactions: its Growth and Development in Indian Banking System – A Statistical Report

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### **ABSTRACT**

In the recent years, Indian banking system have been undergoing from modernization phase and implementing many innovation techniques to access the banking system online. Both private and public sector Banks in India have been trying their best to provide the convenience of online financial transactions to their customers. Today's banks provide the convenience to their customers using various techniques of online financial transactions like Internet banking, ATMs, Mobile banking, credit cards etc. The objective of this paper is to show the growth of Indian banking system and to represent a statistical report to analyze growth of banking transactions over the past years. Also, this study represents how the bank customers feel more comfortable to perform financial transactions and enjoy the innovative and secure techniques of online banking over the traditional ways of financial transactions.

**Key Words:** e-commerce, online payments, online financial transactions, RBI, EFT, ECS.

### **I. INTRODUCTION**

The Indian banking has been changed drastically over the past few years. Today's Indian banking system has been using Information Technology (IT) not only to improve their own internal processes but also to improve the facilities and services being provided to their customers. IT improves the front end operations with back end and helps in bringing down the transaction costs for the customers. The changes are multiple and at a fast pace in the term of transformation of technology advancement. It has become completely dependent on technology as the service/ product channel. Up gradation of technology, innovation and modernization are the key factors of having excellence.

The use of IT contributes in increasing the efficiency of the banking operation as well providing more convenience to their customers; even without interacting with the bankers, the customers transact from one corner of the country to another corner. Online banking refers to the automated delivery of banking products and services directly to customers through electronic communication channels, most notably the Internet. Pikkarainen, Karjaluoto, and Pahnla 2004, define Internet banking as an 'Internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments'.

The use of internet in banking has vastly reduced the physical transfer of paper money and currency from one place to another or even from one person to another which reduces costs of financial transactions of the banks. It is also called electronic banking. It may include electronic funds transfers, Internet banking, mobile banking, credit/debit card based clearing. MICR, ECS, EFT & NEFT, RTGS, CBC (Card Based Clearing), on line Tax Accounting System (OLTAS)

## ***II. ONLINE PAYMENT SYSTEM IN INDIAN BANKING***

In Indian banking system, online payment has become immensely popular. The use of Information technology in Indian banking system has played a vital role in the advancement of Indian banking system. Now days, the approach of Indian banking to every individual is possible because of the computerization process adopted by banking sector. Use of IT in Indian banking system has simplified its working environment as well as provided an easy access to their customers for accessing the banking system in an optimum manner.

Online payment system constitutes an innovation both in the processes of production and in the distribution of financial services. On the customer side, the online banking provides more information on the types of financial services of different banks and allows comparisons between the available offerings. On the bank side, the new technologies offer greater information on the users' needs and requirements and therefore they permit to develop customized services. Moreover, the online banking represents a valuable instrument to monitor the activity of the competitors. This may drive networking and interaction between the different banks, but may also strengthen the competition and make the selection process severe.

The payment landscape in India has evolved considerably. Cash cards have emerged in the market, in addition to credit and debit cards. Direct debit from accounts, electronic wallets and mobile payment are alternative options. The number of internet banking users increased of the total number of bank account holders. The number of payment gateways in India has also increased, and day by day the banks are offering low transaction charges. The authentication and security options have been strengthened by adding the multiple layers as well as OTPs.

The Reserve Bank continued its efforts in making the payment systems more secure and efficient. Efforts have also been made to make the payment systems more affordable for their users and to widen their reach beyond the existing levels to achieve the goal of financial inclusion. The focus has also been on reducing the use of cash in society. During the year, the Reserve Bank continued to improve its working environment using IT infrastructure with a view to facilitate with the latest technological innovations [5].

In Indian banking system we have evident that, the payment and settlement system has changing according to market need. ICT revolution has availed new means to financial transaction and settlement process than traditional

payment system. There are many advantages of online banking; it is convenient, it isn't bound by operational timings, there are no geographical barriers and the services can be offered at a minuscule cost [2]. Electronic banking has experienced explosive growth and has transformed traditional practices in banking [3].

Electronic banking is the only way to stay connected with the customers at any place and at anytime through internet applications. The Indian banks took the internet applications as a weapon of competitive advantage to corner the great monoliths like State Bank of India, Indian Bank etc. Private Banks are pioneer in India to explore the versatility of internet applications in delivering services to customers.

### ***III. TRANSACTIONS THROUGH RETAIL ELECTRONIC PAYMENT SYSTEMS***

The transactions through electronic payment systems enable a customer to pay for the goods and services online by using integrated hardware and software systems. The main objective of electronic payment systems is to increase the efficiency, to improve the security, and to enhance the customer convenience. Below given are some of the frequently used techniques for electronic payment systems:

**MICR:** MICR is an abbreviation for 'Magnetic Ink Character Recognition'. The MICR is the name given to technology used in printing the code. In Indian banking system the MICR based cheque clearing system was introduced first time in 1980. Apart from being a security bar code to protect the transaction, the MICR code is also an indispensable part for online money transfer. Every bank branch is given a unique MICR code and this helps the RBI to identify the bank branch and speed up the clearing process.

**ECS:** The Electronic Clearance Service (ECS) scheme provides an alternative method of effecting bulk payment transactions like periodic (monthly/ quarterly/ half-yearly/ yearly) payments of interest/ salary/ pension/ commission/ dividend/ refund by Banks/Companies /Corporations /Government Departments. In this scenario, the Reserve Bank of India has implemented an off-line electronic funds transfer system allowing paperless direct debit and credit transactions by banks, viz. Electronic Clearing Service. After successful implementation of ECS Credit scheme, Reserve Bank of India initiated the ECS-Debit, a facility of payment of pre-authorized debits through ECS [4].

**NEFT:** Reserve Bank of India has introduced an electronic funds transfer system called 'National Electronic Funds Transfer' System. The objective of the NEFT System is to establish an electronic funds transfer system to facilitate an efficient, secure, economical, reliable and expeditious system of funds transfer and clearing in the banking sector throughout India, and to relieve the stress on the existing paper based funds transfer and clearing system.

**RTGS:** This Real Time Gross Settlement System (hereinafter referred to as the RTGS System), set up, operated and maintained by the Reserve Bank of India (RBI) comprises of the RTGS application, the Inter-Bank Funds Transfer Processor (IFTP) application and the RTGS Member (RTGS Participant) Interface application. The RTGS and the IFTP applications will, for the purposes of this document, be referred to as the Central System jointly. The Member Interface (hereinafter referred to as the PI) will be provided by the Reserve Bank of India (RBI) to all the Type 'A' and 'B' members of the RTGS System [6]. These Operating Guidelines are called the Real Time Gross Settlement System Business Operating Guidelines, 2004.

NEFT and RTGS are the two convenient modes of money transfer between banks in India. The acronym RTGS refers to for 'Real Time Gross Settlement', it is a unique and popular fund transfer mechanism which enables the transfer of money between two banks on a real time and on gross basis. Whereas NEFT is the abbreviation for National Electronic Funds Transfer which is an online system for transferring funds between financial institutions. This system was introduced in 2005 and is highly improved version of EFT (Electronic Funds Transfer). The fundamental difference between RTGS and NEFT which can be clearly deduced from the above definitions is that RTGS is based on gross settlement and NEFT is a net-settlement process. Moreover, RTGS is the swiftest money transfer system through the banking channel as it is done in real time i.e. push transfer, while NEFT being net based is comparatively slower than RTGS.

**CREDIT CARD:** The term "credit card" usually refers to a plastic card assigned to a cardholder, usually with a credit limit, that can be used to purchase goods and services on credit or obtain cash advances. Credit cards allow cardholders to pay for purchases made over a period of time, and to carry a balance from one billing cycle to the next. Credit card purchases normally become payable after a free credit period, during which no interest or finance charge is imposed. Interest is charged on the unpaid balance after the payment is due. Cardholders may pay the entire amount due and save on the interest that would otherwise be charged. Alternatively, they have the option of paying any amount, as long as it is higher than the minimum amount due, and carrying forward the balance.

Most of the card issuing banks in India offer general purpose credit cards. These cards are normally categorized by banks as platinum, gold or classic to differentiate the services offered on each card and the income eligibility criteria. Banks may, at the request of a cardholder, issue a supplementary card (also referred to as 'add-on cards') to another individual who is usually an immediate family member of the cardholder.

**DEBIT CARD:** Debit card is an electronic card issued by a bank which is linked to the client's bank account and is used to withdraw cash or pay for goods and services. Using this card, the clients need not to visit the bank to withdraw cash from their account as they can go just to an ATM or pay electronically at the merchant locations. In a debit card transaction, the amount of a purchase is withdrawn from the available balance in the cardholder's account. If the available funds are insufficient, the transaction is not completed.

**IV. STATISTICAL ANALYSIS OF GROWTH IN ELECTRONIC FINANCIAL TRANSACTIONS IN INDIAN BANKING SYSTEM**

The increasing use of electronic and internet based banking services have brought comfortable financial transactions with safety of funds and security of the environment in which these transactions are put through. It was needed to work towards evolving Standards of financial transactions in the Indian banking system as well as towards the codes for electronic fund transfer/net banking, which sets out rules about how electronic funds transfers and net banking should work.

India is moving rapidly towards the e-payments. Most of the large value payments and retail payments are shifting to the e-payment mode with increasing consumer awareness as well as due to regulations by the RBI. Most of the retail payments are made through ECS, NEFT and card payments. To ensure that all the payment and settlement systems operating in the country are safe, secure, sound, efficient, and accessible and authorized, RBI issued a vision document giving the principles and action plan for payment systems in India.

The Reserve Bank continued its efforts in making the payment systems more secure and efficient. Efforts were also made to make the payment systems more affordable for users and to widen their reach beyond the existing levels to achieve the goal of financial transactions. The focus has also been on reducing the use of cash in society. During the year, the Reserve Bank continued its efforts to improve the IT infrastructure with a view to facilitating the Indian banking sector's alignment with the latest technological innovations [7].

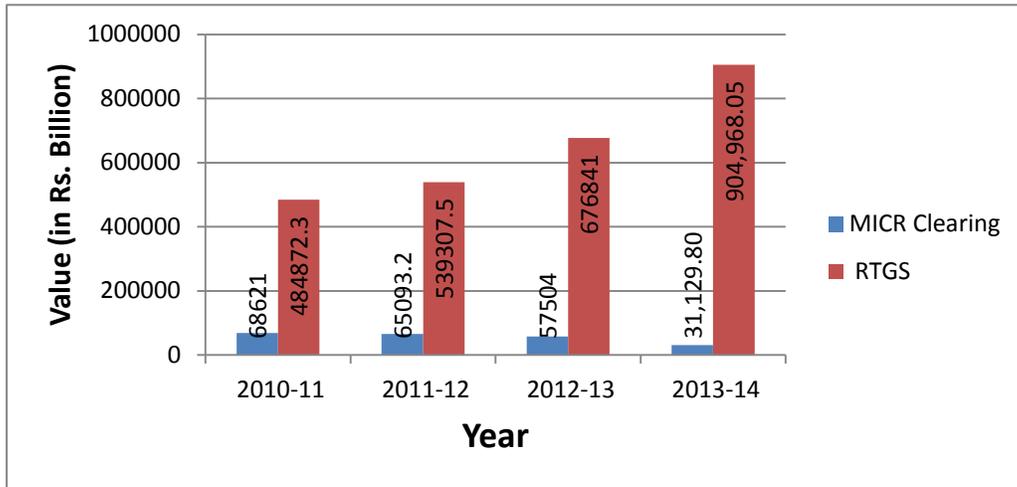
The data collected from RBI represents the annual turnover of Indian banking system which reports various types of online financial transaction including SIPS, MICR, ECS, Credit cards, Debit cards etc. The below given table represents annual turnover of each type of transaction of the recent years:

**Table -1: Payment System Indicators - Annual Turnover**

Sr. No.	Transaction Type	Value (in Rs. Billion)			
		Year 2010-11	Year 2011-12	Year 2012-13	Year 2013-14
1.	Systemically Important Payment Systems (SIPS) through RTGS	484872.3	539307.5	676841.0	904,968.05
2.	MICR Clearing	68621.0	65093.2	57504.0	31,129.80
3.	ECS (Dr.)	736.5	833.6	1083.9	1,267.97
4.	ECS (Cr.)	1816.9	1837.8	1771.3	2,492.19
5.	EFT/NEFT	9391.5	17903.5	29022.4	43,559.9
6.	Credit Cards	755.2	966.1	1229.5	1,556.72

7.	Debit Cards	7536.82	12,649.4	17,426.37	20,601.14
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Source: Database on Indian Economy RBI's Data



Warehouse.

Figure-1: Growth in MICR and RTGS over the recent years.

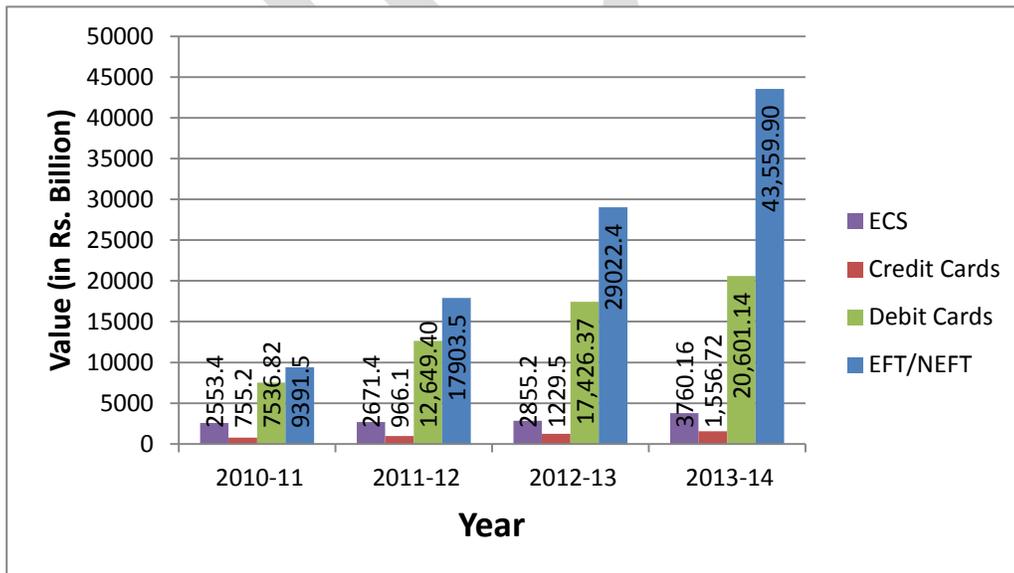


Figure-2: Growth in ECS, Credit cards, Debit cards, EFT/NEFT over the recent years.

From the above mentioned statistical data it is realized that online banking in India has been experiencing a remarkable growth, successfully changing the way people transact. People today can perform financial transactions literally everywhere within minutes, be it their workstations or homes, and most importantly, at any time of the day at their leisure.

EFT/NEFT is the online fund transfer service i.e. the most demanding and extensively used in the nation. So there is an urgent need to ramp up the online fund transfer technically and in respect to security. The benefit of better financial services can be extended to the bank customers. Moreover the EFT/NEFT service must be provided 24 hours service so that more and more bank customers can be facilitate.

The number of card based transactions is on the rise. The volume of credit card transactions has increased over the past years but the debit card transactions have been recorded higher in comparative to volume of credit card transactions. The number of debit cards is on the rise due to the increasing access of people to banking services.

MICR technology provides faster processing of payments using cheque clearing. But as the statistical data represented above there is low rating of MICR based cheque clearing as well as the ECS scheme over the past years.

#### **V. CONCLUSION**

The electronic clearing and settlement of funds is useful to bankers as well as to the customers but there is a need to provide more and more security to electronic transfer of funds. There is a need of International standard for controlling the financial fraud related activities.

On the basis of the statistical data and analysis, it can be concluded that the emerging payment system in India for large value transactions is RTGS, ECS for bulk payments and NEFT for one to one fund transfer. Among the card based payment systems debit card is more popular than credit cards. Moreover, the falling charges of internet and mobile services, broadband with access through cable and digital subscriber lines etc. would definitely encourage the boom in electronic banking in India.

Further research is needed in order to identify more specific issues regarding the adoption of Internet banking in the financial sector in general and the pattern of diffusion of such innovation among banks in India. In this respect, it would be useful to carry out an econometric analysis which takes into account the different types of Internet based services and applications.

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