

## **Innovations in online Banking and its Transformation**

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### **ABSTRACT**

Online Banking business now-a-days is based on the application of information technology. The banking sector in India has faced a number of challenges and seen a number of changes. The many challenges faced are the changing needs and perceptions of customers, time to time change in regulations and advancement in new technologies. These challenges have pressurized banks to change the old methods of doing business. Most of the banks have started making an innovative approach towards e-banking which lead to tremendous improvements in banking services and operations. The various innovations in banking and financial sector are ATM, Debit and Credit cards, ECS, EFT, NEFT, RTGS, Retail banking, free advisory services, e- banking, mobile banking and many more products and services. Banks are investing heavily in adoption of these innovations. This paper highlights the new technological changes in Indian banking sector and also focuses on how the technology has transformed the face of India banking.

**Keywords:** Indian Banking, Challenges in Banking Industries, Transformation.

### **I. INTRODUCTION**

The economic development of any country is based upon its banking system. Banking, over the years has witnessed a number of changes. Banks now-a-days offer a wide variety of products and services than ever before with faster delivery and more efficiency keeping banking's central function the same as it has always been. Indian Banking in the modern sense, had originated in the last decades of the 18th century. It has undergone a huge transformation since the 19<sup>th</sup> century. The rate of transformation was particularly high in the 1990s and 2000s. In the 1990s, the Indian banking sector had seen greater emphasis placed on technology and

innovation. Technology plays a key role in maximizing the efficiency of services. Banks have started using technology to provide services of better quality at a faster pace. Banking practices have changed significantly due to information technology. Information technology had given convenience to customers in carrying out their banking activities from different geographical places.

## **II. OBJECTIVES OF THE STUDY**

- ❖ To highlight the new innovations in the banking sector.
- ❖ To study how innovations have transformed Indian banking.

## **III. METHODOLOGY**

This research is mainly based on secondary data. Data has been collected from different sources like annual reports of the selected banks, scholarly articles from different journals, newspapers, and different web sites.

## **IV. INNOVATIONS IN BANKING AND ITS TRANSFORMATION**

Banks have seen a wave of innovation in recent years as to meet the changing needs of the customers. Technology facilitates banks to create new systems which addresses a wide range of customer needs. Financial innovation associated with technological change totally changed the banking philosophy and that is further tuned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of product, process and market. Today, we have electronic payment system along with currency notes. Financial sector is moving towards a scenario, where it can have new instruments along with liquidity and safety. Following are some new innovations in banking sector. The various innovations in banking and financial sector are Debit and Credit cards, ECS, EFT, RTGS, NEFT, CTS, Retail banking, free advisory services, e-banking, mobile banking and many more products and services.

### **ATM**

The ATM is a computerized telecommunications device that facilitates banking transactions and makes the customers life peaceful and easy. ATM can be located in the branch premises or located anywhere outside the branch premises.

The Automated Teller Machine has changed people's lifestyles and how the banking industry functions. The most important benefit the banks experience is of providing its customers funds as and when it is required. That is because the customers are more than happy and satisfied. They are able to do various other transactions also and it has proved to be very helpful to the customers. The penetration of ATMs across the country increased from the year 2012-13 to 2017-18. According to available data the number of ATMs which were 92,455 in 2012 is increased to 2, 11,255 in year 2018, which is a good sign for whole industry.

### **DEBIT CARD AND CREDIT CARD**

Financial institutions, such as banks or credit unions, issue debit cards. A debit card is an electronic card issued by a bank which allows holder to purchase products without paper checks, cash, or credit cards. When a holder uses debit card, money is taken directly from holder's bank account. A credit card is issued by a financial company giving the holder an option to borrow funds, usually at point of sale. Credit cards charge interest and are primarily used for short-term financing. Interest usually begins one month after a purchase is made and borrowing limits are preset according to the individual's credit rating. Card payments technologies trump cash, with contactless bank card payments zooming in at 12.5 seconds per transaction.

The amount of Debit Card transactions (at ATMs and at POS terminals) increased rapidly and stood at Rs.31,56,269 million in year 2017-2018, whereas the amount of Credit Card transactions (at ATMs and at POS terminals) stood at Rs. 4,66,291 million in the year 2017-2018 which talks about how plastic cards are not only more popular than paper, and are often faster.

### **ECS**

ECS is an electronics mode of payment/receipt for transactions that are repetitive and periodic in nature. ECS is used by institutions for making bulk payment or bulk collection of amounts.

Essentially, ECS facilitates bulk transfer of monies from one bank account to many bank accounts or vice versa. ECS has two variants i.e. ECS Debit clearing services and Credit clearing services. ECS Debit operates on the principles of single credit multiple debits and is used by utility service providers for collection of electricity bills, telephone bills and other charges and also by banks for collection of principal and interest

repayments. ECS Credit handles bulk and repetitive payment requirements of corporate and other institutions and is used for transactions like payment of salary, dividend, pension, interest etc.

Over time ECS credit has become one of the most convenient methods of making repeated large number of payments of small amounts. Though easy, ECS Debit method has been growing slowly because of lack of consumer awareness. Utility service companies such as electricity and telephones are encouraging this process by giving incentives.

### **EFT**

Electronic Funds Transfer (EFT) is a system of transferring money from one bank account directly to another without any paper money changing hands. The accounts can be at the same financial institution or at two different financial institutions. The transaction is done electronically over a computerized network. It is used for both credit transfers, such as payroll payments, and for debit transfers, such as mortgage payments

The increased use of EFTs for online bill payments, purchases and pay processes is leading to a paper-free banking system, where a large number of invoices and payments take place over digital networks. The EFT system, presently, covers all the branches of the 27 public sector banks and 55 scheduled commercial banks at the 15 centers. Funds transfer is possible from any branch of these banks at these centers to other branch of any bank both inter-city and 173 intra-city. There is no value limit for individual transactions. EFT systems play a large role in future, with fast, secure transactions guaranteeing a seamless transfer of funds within institutions or across banking networks.

### **RTGS**

RTGS stands for real time gross settlement, which means that it enables money to move from one bank to another on a real time and gross basis. Simply put, real time means the beneficiary bank receives the instructions for fund transfer immediately and gross means that it is not bunched with any other transaction and settlements of funds transfer instructions happen individually.

RTGS improved the service quality with immediate credit, transparent pricing and faster access. This is the fastest mode of fund transfer, which is secure and irrevocable. This adds to the present fund transfer channels available to the customers like EFT, ECS, SEFT, DD, etc.

The usage of RTGS is less than its potential as most of the customers are not aware about this system. Moreover, the banks charge high rates while transferring funds under RTGS. So, RBI has now made it mandatory that only the high value transactions will be processed through RTGS. The reach and utilization of RTGS has witnessed a sustainable increase since its introduction. This shows the increasing popularity of RTGS in Indian banking industry.

### **NEFT**

NEFT stands for National Electronic Funds Transfer (NEFT) and is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms and corporate 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. Like RTGS, NEFT also transfers funds from one bank, but unlike RTGS the settlement takes place in batches (that may include transfers from various individuals) rather than individually. The batches are settled in hourly time slots.

NEFT has gained popularity due to it saving on time and the ease with which the transactions can be concluded. This is reflected from the fact that 42% of all electronic transactions in the 2008 financial year were through NEFT. Using the NEFT infrastructure, a one way remittance facility from India to Nepal has also been implemented by the RBI since 15th May, 2008. Overall NEFT based clearing increased rapidly over the years.

### **CTS**

CTS stands for Cheque Truncation System and essentially means that instead of sending the cheque in physical form by the collecting bank to the paying bank, an electronic image of the cheque is transmitted to the drawee branch for payment through the clearing house, thereby eliminating the cumbersome physical presentation of the cheque to the paying bank, thus saving in time and costs involved in traditional clearing system. CTS, has emerged as an important efficiency enhancement initiative undertaken by Reserve Bank in the Payments Systems arena.

CTS are faster, efficient and more transparent. CTS is now an imperative for banks rather than a choice. Besides the convenience that CTS ensures, there are many benefits in terms of huge reduction in the

cost and time involved in transactions. World over, banks have either adopted CTS or are seriously in the process of migrating to CTS from their respective traditional paper-based systems.

## **RETAIL BANKING**

Retail Banking is the provision of services by a bank to the general public. Banking services which are regarded as retail include provision of savings and transactional accounts, mortgages, personal loans, debit cards and credit cards. To put in simpler words it is a service for two types of individuals: savers and borrowers.

Retail banking is analogous to a one-stop shop for as many financial services as possible on behalf of retail clients. Some retail banks have even made a push into investment services such as wealth management, brokerage accounts, private banking and retirement planning.

While retail banking offers phenomenal opportunities for growth, the challenges are equally daunting. The future of the retail banking industry depends upon the capacity building of the banks to meet the challenges and make use of the opportunities profitably.

## **E- BANKING**

Is the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channel's. It includes the system that enable financial institutions customers, individuals/business to access accounts, transact business, or obtaining information of financial products and services through public or private network.

Banking through electronic channels has gained increasing popularity in recent years. This system, popularly known as 'e-banking', provides alternatives for faster delivery of banking services i.e. offering, supplying and delivering banking products and services to a wide range of customers at their office or home through various electronic delivery channels via electronic devices. These online banks are providing banking services to customers purely through internet and mobile applications. They offer nearly all of the accounts and services provided by traditional banks, often with lower fees from reduced banking branch expenses.

## **MOBILE BANKING**

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a smart phone or tablet. Unlike the related internet banking it uses software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis. Transactions through mobile banking may include obtaining account balances and lists of latest transactions, electronic bill payments, and funds transfers between a customer's or another's accounts. Some apps also enable copies of statements to be downloaded and sometimes printed at the customer's premises.

From the bank's point of view, mobile banking reduces the cost and time of handling transactions by reducing the need for customers to visit a bank branch for non-cash withdrawal and deposit transactions. Mobile banking does not handle transactions involving cash, and a customer needs to visit an ATM or bank branch for cash withdrawals or deposits. In the last one year, e-commerce has rapidly expanded and customers are far more aware and comfortable doing transactions in mobile, knowing that apps available from the banking side are highly secure. The mobile banking revolution has brought many other participants in the area of banking with a number of companies set to open payments banks, leveraging on technology.

#### **OTHER INNOVATIVE PRODUCTS AND SERVICES.**

- ❖ “My Saving Rewards”, the programme allow customers to accumulate reward points on a host of savings account transactions such as bill pay, online shopping, EMI payment etc.
- ❖ “E-Locker”, an online service for storing important documents for privilege banking customers.
- ❖ UID authentication for Aadhaar based payments and enabling corporate to pay taxes online.
- ❖ Cash Deposit Machines (CDMs) are installed for cash deposits by customers at these machines by using their ATM cum Debit card.
- ❖ Expansion of branches in remote locations either through a bank branch or Business Correspondence (BC) or other modes so that every eligible person should have a bank account..
- ❖ The RBI is replacing the existing RTGS with a new NG-RTGS system which includes which includes few extra features like advanced liquidity management facility, Extensible Markup Language (XML) based messaging system etc.
- ❖ Recently launched scheme of government “Jan DhanYojana” with the motive that every family must have a bank account

- ❖ Today, the banks installed Solar ATMs, windmills to ful-fil their own energy needs, paperless banking etc.

## V. CONCLUSION

Indian banking system has undergone a significant transformation over time in terms of diversity and innovation. Technology has led banks to grow and expand its reach to the underserved areas as well. It is now the spearhead for Banking, making it more convenient for the common man. The developments in information technology resulted in numerous innovations in the payment system of India. Today, core banking, ATM, EFT, NEFT, RTGS, Electronic Clearing Service (ECS), Speed clearing, credit card, debit cards, internet banking and mobile banking are available to serve customers in India. It is reported that about 250 million internet users are there in India, which is among the top three in the world and this number is set to grow to 450 million by end of 2018. The E-banking, Mobile banking, Net banking and ATMs facility has gained the success among the customers. Today's generation is showing a keen interest in adopting all such technology enabled banking facility. Payment settlement systems like RTGS, NEFT, EFT, ECS, and CTS have proved to be successful among the customers using these facilities. Therefore, the IT revolution in Banking has set the stage for overcoming the challenges the new economy poses keeping in view the unprecedented increase in financial activity across the world.

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