

# Growth of E-Banking in India

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**Abstract:** *Financial services industry is developing due to the introduction of internet, rapid technological evolutions, deregulation, globalization as well as the impact of changing competitive and regulatory forces. So Financial system plays an important role in the economic development of the country. Because of the advent of information technology there is a change in the banking sector which has paved way for the introduction of retail electronic payment system and has progressed in the recent years in various countries and India has left no way behind. The objective of the paper is to examine and analyze the progress made by the internet banking in India.*

**Keywords:** EB, ICT

## 1. Introduction

Banking through electronic channels has gained increasing popularity in recent years. The development and the increasing progress experienced in the Information & Communication Technology coupled with the expansion of the global economy paved the way for the transformation of the Indian banking system's role from traditional trade financing to mobilizing and channeling financial resources more effectively in almost all facets of life. Intense competitive environment, changing business environments, globalization and the advancement of ICT are the important factors that have forced Banking and Financial services to change. Customers are also demanding greater convenience and accessibility as reflected in longer branch opening hours and an increase in the choice of delivery mechanism. Therefore, with the passing of the traditional banking sector to electronic banking, new strategies have become necessary in order to attract new and retain existing customers. [1] Banks are the main stimulus of the economic progress to play a vital role in spearheading the economic development of the nation. The demand for financial services is transmuting rapidly and deportment of customers regarding these services is withal going to transmute rapidly. Consequently, it is compulsory for the banking sector additionally that in lieu of the traditional banking it should adopt electronic banking and some incipient strategies in order to magnetize and retain subsisting as well incipient customers. E-banking is the most pioneering trend among the customers in the present era of thrust for more expeditious and secured financial services. The transfer from the traditional banking to e-banking has been an elevating amendment in banking dealings. Enlarged competition, the advancement of information & communication technology, and transmuting business environment etc. are the consequential concerns that have coerced banking services to transmute. This particular paper endeavors to explore the sundry online customer services provided by the banking industry in India. Over a long period of time banks have been utilizing electronic and telecommunication modes for distributing a wide range of value- integrated product/ services. The transaction channels include private networks; public networks etc. and the devices include phone, computers, Automated Teller Machines (ATMs), etc. The extensive utilization of computers, laptops, tablet, mobile phones etc. make facile access to internet and World Wide Web. This form of banking is generally referred to as Electronic Banking, albeit the range of products and services offered by different banks vary considerably both in their content and sophistication. From the perspective of banking

products and services being offered through internet, debit and credit cards, ATMs, mobiles, e-banking is nothing more than traditional banking services distributed through an electronic communication backbone.

The role of banking has now changed from a mere financial intermediary to service provider of various financial services under one roof acting like a financial supermarket. With extreme competition among the banks, entire banking system is undergoing a change. Today, modern banking not only looks for new ways to attract but also to retain the customers and gain competitive advantage over their competitors.

## 2. Evolution of E-banking in India

In India the traditional method of banking was through branch banking. It was in 1991, that with economic reforms, the banking industry also witnessed the new wave of banking methods. The Reserve Bank of India organized a working group on Internet Banking. The group divided the internet banking products in India into 3 types based on the levels of access granted. [2] They are:

- 1) Information Only System: General purpose information like interest rates, branch location, bank products and their features, loan and deposit calculations are provided in the banks website. There are facilities for downloading various types of application forms. The communication is normally done via e-mail. There is no interaction between the customer and bank's application system. No identification of the customer is done. In this system, there is no probability of any unauthorized person getting into production systems of the bank over internet. [3]
- 2) Electronic Information Transfer System: The system provides customer- specific information in a form of account balances, transaction details, and statement of accounts. The information is still essentially of the 'read only' format. Identification and verification of the customer is through password. The information is drawn from the bank's application system either in batch mode or off-line. The application systems cannot directly access through the internet. [4]
- 3) Fully Electronic Transactional System: This system allows bi-directional abilities. Transactions can be submitted by the customer for online update. This system needs high degree of security and control. In this environment, web server and application systems are connected over secure infrastructure. It contains technology covering computerization, networking and

security, inter-bank payment gateway and legal infrastructure. [5]

### 3. Meaning of E banking

E-banking can simply be defined as using Automated Teller Machines, telephones, internet and mobiles for doing day to day simple and advance transaction without being physically present in the bank, to use the services like making queries for account balance, making different type of payments like bills, mobile recharge, money transfer, filing income tax return electronically. In simple words, e-banking is concerned with doing all these transactions from home or office without visiting the branch; 24 hours, 7 days in a week by using ATM's, telephones, internet and mobiles etc for doing banking services.

Daniel, defines electronic banking 'as the delivery of bank's information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television'. It includes RTGS, NEFT, ECS, Credit cards/Debit cards and Smart cards, CTS, ATM and Mobile banking.

#### Advantages of E- banking system

E-banking has numerous advantages attached to its usage. E-banking provides a platform for anytime, anywhere banking. The customers can log on to their account using websites or cards anytime and from anywhere without being concerned about the bank timings or bothering about the long bank queues. In today's time banking transactions are not bounded by any geographical region or time period. Transactions can be easily executed with a click of mouse which is the biggest advantage of online banking. That, is, why physical banks are slowly and slowly being replaced by 'brick and click institutions' and 'virtual banks'. Moreover, it money and time of the customers as they no longer need to travel all the way to bank for every banking transaction. This new form of banking is considered economical for banking institutions also as lot of money in form operational cost on physical infrastructure and human resources is saved. Customers benefit in form of better and advanced facilities being made available. If online errors or queries are responded speedily and in efficient manner, it helps the banks in maintaining their customer base. With ample time availability because of lowering down of mechanical work, banks are able to focus on providing better and new facilities to the customers. Hence, it also provides banking institutions with an added advantage over their competitors. With the widespread penetration of internet, almost all the banks provide online services. So today, e-banking is not just a marketing tool it's a necessity, which all banks need to have. [6]

- 1) E-banking helps in reducing the cost of delivering the services to
- 2) The customers.
- 3) It provides banks with competitive advantage among their peers.

- 4) It reduces the use of paper money that helps the central bank in printing less paper notes.
- 5) Through websites, banks can earn revenue by promotional activities.
- 6) FAQ's uploaded over the banks' website will reduce the workload on employees.
- 7) Customers can avail e-banking facility from anytime, anyplace, therefore there is a need to invest more and more on relevant infrastructure.

#### Benefits to the customers

- 1) E-banking delivers 24x7 services to customer.
- 2) Easy access to account information in quick time.
- 3) Payment can be made online for the purchase of goods and services.
- 4) With e-banking, customers can check account balance, can get statement of their account, apply for loans, check the progress of their investments and collect other relevant information.

E-banking has helped banks to retain the current customers, increase customer's satisfaction, acquire further share in the markets and reduce the costs of delivering service to the customers. Delivery of services has gained increasing popularity through electronic platform. It provides alternative way for delivery of services in a faster way to the customers. Various number of services are being offered by banks through electronic banking. It is quite difficult to measure the extent of such services, but an effort has been made by classifying these services into following categories.

#### • Automated Teller Machines (ATM)

ATM is designed to perform the most important function of bank. It is operated by plastic card with its special features. The plastic card is replacing cheque, personal attendance of the customer, banking hours restrictions and paper based verification. There are debit cards. ATMs used as spring board for Electronic Fund Transfer. There is no need for a customer to visit branches for their day to day banking transaction like cash deposits, cash withdrawals, balance enquiry, dropping cheque etc. Electronic channels have opened new avenues for banks. ATM's are electronic machines which are operated by customer himself to withdraw or deposit cash. The management of ATM's involves loading of cash, arrangement of money with bank service of car that delivers cash, providing insurance for all areas such as theft of cash from ATM's.

#### • Credit Cards/Debit Cards

The Credit Card holder is empowered to spend wherever and whenever he wants with his Credit Card within the limits fixed by his bank. Credit Card is a post paid card. Debit Card, on the other hand, is a prepaid card with some stored value. Every time a person uses this card, the Internet Banking house gets money transferred to its account from the bank of the buyer. The buyers account is debited with the exact amount of purchases.

#### • Smart Card

Banks are adding chips to their current magnetic stripe cards to enhance security and offer new service, called Smart Cards. Smart Cards allow thousands of times of information storable on magnetic stripe cards.

#### • Bill Payment Services

You can facilitate payment of electricity and telephone bills, mobile phone, credit card and insurance premium bills as each bank has tie-ups with various utility companies, service providers and insurance companies, across the country.

#### • Fund Transfer

You can transfer any amount from one account to another of the same or any another bank. Customers can send money anywhere in India. Once you login to your account, you need to mention the payees' account number, his bank and the branch.

#### • Mobile banking

With Internet banking, customers can not only pay their credit card bills online but also get a loan on their cards. Barnes and Corbett (2004) suggest that recent innovations in telecommunications have enabled the launch of new access methods for banking services. One of these is mobile banking; whereby a customer interacts with a bank via a mobile device such as a mobile phone or personal digital assistant. Mobile banking concept is one of the biggest innovations along with ATM's in the field of banking sector. Mobile banking services can be used by either short message service (SMS) or through an application installed on the cell phones.

#### • Railway Pass

This is something that would interest all the aam janta. Indian Railways has tied up with ICICI bank and you can now make your railway pass for local trains online. The pass will be delivered to you at your doorstep. But the facility is limited to Mumbai, Thane, Nashik, Surat and Pune.

#### • Investing through Internet Banking

You can now open an FD online through funds transfer. Now investors with interlinked demat account and bank account can easily trade in the stock market and the amount will be automatically debited from their respective bank accounts and the shares will be credited in their demat account.

#### • Recharging your Prepaid Phone

Now just top-up your prepaid mobile cards by logging in to Internet banking. By just selecting your operator's name, entering your mobile number and the amount for recharge, your phone is again back in action within few minutes.

#### • Shopping

With a range of all kind of products, you can shop online and the payment is also made conveniently through your account. You can also buy railway and air tickets through Internet banking. In order to gain competitive advantage and eliminate the the electronic banking is to offer higher interest rates and lower service charges on their savings accounts.

#### Issues regarding E-Banking

The dependence on information technology is such that the banking business cannot be thought of in isolation without it. Such has been the spread of information technology footprints across the Indian commercial banking sector. Developments in IT have also brought along a whole set of

challenges to deal with. The development of ebanking will not proceed without conflict, as those who are likely to be worse off under this scenario will try to slow down the process and

delay the introduction of the distribution channels (Mols, 1999). Reserve Bank of India defines fraud in the Report of RBI Working Group on Information Security, Electronic Banking, Technology Risk Management and Cyber Frauds which reads as under:

*"A deliberate act of omission or commission by any person, carried out in the course of a banking transaction or in the books of accounts maintained manually or under computer system in banks, resulting into wrongful gain to any person for a temporary period or otherwise, with or without any monetary loss to the bank."*

#### Impact of E-Banking on Banking system

The banking system is slowly shifting from the Traditional Banking towards relationship banking. Traditionally the relationship between the bank and its customers has been on a one tone level via the branch network. This was put into operation with clearing and decision making responsibilities concentrated at the individual branch level. The head office had responsibility for the overall clearing network, the size of the branch network and the training of staff in the branch network. The bank monitored the organization's performance and set the decision making parameters, but the information available to both branch staff and their customers was limited to one geographical location. [7]

#### Growth in payment system

The Reserve Bank's endeavour to build a less-cash society continued with the large scale adoption of digital modes of payments in the country. In an era of rising means of electronic payment systems, the Bank focused its efforts on safety and security of digital transactions. Accordingly, the Bank worked towards building up a robust and resilient technology infrastructure which ensured smooth functioning of the critical and systemically important payment and settlement systems in the country. [8]

Amongst the electronic modes of payments, the Real Time Gross Settlement (RTGS) system handled 124 million transactions valued at 1,167 trillion in 2017-18, up from 108 million transactions valued at 982 trillion in the previous year. At the end of March 2018, the RTGS facility was available through 1,37,924 branches of 194 banks. The NEFT system handled 1.9 billion transactions valued at around 172 trillion in 2017-18, up from 1.6 billion transactions valued at 120 trillion in the previous year, registering a growth of 20 per cent in terms of volume and 43.5 per cent in terms of value. At the end of March 2018, the NEFT facility was available through 1,40,339 branches of 192 banks, in addition to a large number of business correspondent (BC) outlets. During 2017-18, the number of transactions carried out through credit cards and debit cards was 1.4 billion and 3.3 billion, respectively. Prepaid payment instruments (PPIs) recorded a volume of about 3.5 billion transactions, valued at 1,416 billion. Mobile banking services witnessed a growth of 92 per cent and 13 per cent in



volume and value terms, respectively, while the number of registered customers rose by 54 per cent to 251 million at end-March 2018 from 163 million at end-March 2017. [9]

### Legal relation of E-Banking in India

In India, a Bank's liability would arise out of contract as there is no statute to the point. When liability is contractual it means that the bank is, by virtue of the contract, under an obligation to keep customers' data secret. If transactions are being done on an open network such as the internet then in case of a security breach, an internet service provider (ISP) may be liable, in addition to the bank. Though ambiguity persists as regards liability of an internet service provider due to dearth of decided case law on the point. The Indian Information Technology Act, 2000, basically a framework law, makes hacking a punishable offence under Section 66. Breach of information security is implicitly recognized as a penal offence in the form hacking. The 'appropriate government is empowered to declare any 'computer', 'computer system' or 'computer network' as a protected system. A ten year prison term and a hefty fine await any person who secures access to the 'secured computer system' in contravention of the provisions of the law.

Over 900 cases of fraud related to debit/credit cards and internet banking, involving amount of Rs 1 lakh and above, were registered during April-September 2018 Parliament was informed Wednesday.

Reserve Bank of India (RBI) has registered a total of 921 cases of fraud involving ATM/debit cards, credit cards and Internet banking, wherein the amount involved was Rs 1 lakh and above, during 2018-19 (up to September 30, 2018), Minister of State for Electronics and IT S S Ahluwalia said in a written reply to lok sabha During the year 2015-16, 2016-17, 2017-18, the number of such cases of fraud registered by the RBI stood at 1,191, 1,372 and 2,059 respectively.

Ahluwalia further noted that a total of 3, 14 and 6 financial fraud incidents affecting ATMs, cards, Point of sale (PoS) systems and Unified Payment Interface (UPI) have been reported during the year 2016, 2017 and 2018 (up to November) respectively, as per information reported to Indian computer emergency response team. [10]

According to data maintained by National Crime Records Bureau (NCRB), 12,317 cyber crime cases were registered in 2016, Ahluwalia noted.

This is against a total of 9,622 and 11,592 cyber crime cases registered during 2014 and 2015, respectively, he added, "This includes cases registered under the Information Technology (IT) Act, 2000 and related sections of Indian Penal Code and Special and local laws involving computer as medium/ target," he said adding that data for year 2017 is still under compilation by NCRB. [11]

In **Mr. Akhilesh Kumar Singh vs Bharti Air Tel Ltd. & Another on 23 September, 2013** case the main contention of the Applicants, in brief, is that the complainant has instituted the Consumer Complaint thereby alleging unfair trade practice, fraud and deficiency in service at the instance

of the Ops. According to the complainant, the complainant is entitled to Rs. 80,00,000/- by way of compensation under different heads as per prayer of the petition of complaint. The main allegation of the complainant so far as it relates to the OP, Bharti Airtel Ltd., is to the effect that the OP disconnected the mobile connection of the complainant on the pretext of SIM card being lost and issued the duplicate SIM card to the miscreants for the purpose of committing **Internet banking fraud**, namely, siphoning off several lacs of rupees from the account of the Complainant, which, according to the complainant, tantamounted to unfair trade practice and deficiency in service, and hence, the petition of complaint. According to the Ops, the Consumer Complaint is not maintainable since the provisions of Section 7-B of the Indian Telegraph Act is very much applicable to the instant case and the dispute should be resolved through arbitration in terms of the provisions of Section 7-B of the Indian Telegraph Act. The Consumer Complaint is also not maintainable as the complainant has already initiated a criminal proceeding against the Ops and that question of fraud is not to be adjudicated through a summary trial of the present nature and hence, the application challenging the maintainability of the Consumer Complaint. [12]

### 4. Challenges in adoption of E-Banking

E- banking today is a norm rather than an exception for the banks. But despite the fact that it offers number of benefits which make banking convenient and easy for customers, there are some issues and challenges that needs to be addressed .Some of which are stated below:

**Security Risk** – Security risk is the prominent challenge faced by the banks offering e-banking services. There are still many customers who refuses to opt for e-banking services because they still don't find e-banking or online banking secure. Online banking frauds like phishing, spamming, spy ware, internet theft etc. are still very much prevalent and are a thwart to e-banking expansion. These security problems need to be addressed to win over the confidence of the customers.

**Privacy Risk** – The risk of disclosing the private information of the customers with others. As all the information of the customers are available online, there is always a fear among the customers that their personal information may be shared by the banks with the marketing people.

**Technical difficulties** – As e-banking is all about the use of technology, any technical error can withhold the banking process. The problem of banking websites going down, or jamming problem due to lot of rush on the websites, blocking of the cards , forgetting log-in passwords all these are technical problems which a customer may face in using internet banking.

**Customer Education** – There are lot of users in India who still fear using e-banking services because they are unaware either about their benefits or are unaware about the mode of usage. It is a big challenge for the banks to make to slowly equip all the customers in using e-banking facilities. Though lot of people have shifted to use of ATMs and plastic cards,

a lot needs to be done to make EFT and RTGS a popular banking mechanism among Indian users.

**Trust Factor-** Trust is the biggest hurdle to online banking for most of the customers. Conventional banking is preferred by the customers because of lack of trust on the online security. They have a perception that online transaction is risky due to which frauds can take place. While using e-banking facilities lot of questions arises in the mind of customers such as: Did transaction go through? Did I push the transfer button once or twice? Trust is among the significant factors which influence the customers' willingness to engage in a transaction with web merchants.

**Implementation of global technology:** There is a need to have an adequate level of infrastructure and human capacity building before the developing countries can adopt global technology for their local requirements. In developing countries, many consumers either do not trust or do not access to the necessary infrastructure to be able to process e-payments.

**Non- Performing Assets (NPA):** Nonperforming assets are another challenge to the banking sector. Vehicle loans and unsecured loans increases N.P.A. which terms 50% of banks retail portfolio was also hit due to upward movement in interest rates, restrictions on collection practices and soaring real estate prices. So that every bank have to take care about regular repayment of loans.

**Competition:** The nationalized banks and commercial banks have the competition from foreign and new private sector banks. Competition in banking sector brings various challenges before the banks such as product positioning, innovative ideas and channels, new market trends, cross selling ad at managerial and organizational part this system needs to be manage, assets and contain risk. Banks are restricting their administrative folio by converting manpower into machine power i.e. banks are decreasing manual powers and getting maximum work done through machine power. Skilled and specialized man power is to be utilized and result oriented targeted staff will be appointed

**Handling Technology:** Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Early adopters of technology acquire significant competitive advances Managing technology is therefore, a key challenge for the Indian banking sector.

## 5. Conclusion

Finally the study concludes that with the passage of time E-banking has gained the momentum in the Indian context. Many financial innovations like ATMs, credit cards, RTGS, debit cards, mobile banking etc. have completely changed the face of Indian banking. Thus, there is a paradigm shift from the seller's market to buyer's market in the industry and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking". The shift has

also increased the degree of accessibility of a common man to bank for his variety of needs and requirements. In years to come, e-banking will not only be acceptable mode of banking but will be preferred mode of banking. Thus, it is clear that in newly industrialized nations, electronic banking is gaining its momentum as the banks operating globally have declared E-banking as one of the core strategies for future development. There exists a potential scope to gear on the opportunities related to the electronic banking channels with a particular emphasis on the developing nations.

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