

E-BANKING SERVICES: THE INDIAN SCENERIO

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Abstract: *Now-a- days banking is known as innovative banking. The purpose of the research article is to show the growth and technological development in Indian Banking Sector. The objectives of this research article are to show the growth in Indian banking sector; the technological development in Indian banking sector and computerisation in the banking sector. Developments in Information Technology have given a rise to innovations in the product & service designing and their supply in the banking sector and finance industries, customer services and satisfaction are their centre point of all the efforts. Information revolution led to evolution of internet, which led to E-Commerce continued by evolution of E-Banking. Earlier Banking was conducted in very traditional manner, there were no such innovations. E-Banking or Electronic Banking is a major innovation in the field of banking. Banking is no longer confined to the branches where one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. Technology enables increased access of the banking system, increases cost effectiveness and make small value transactions possible. Technology enhances choices, creates new markets, and improves productivity and efficiency. Effective use of technology has a multiplier effect on growth and development.*

In true E-Banking, any inquiry or transaction is processed online without any reference to the branch at any time. Providing Internet banking is increasingly becoming a “need to have” than a “nice to have” service. The progress in e-banking in Indian banking industry is measured through various parameters such as Computerization of branches, Automated Teller Machines, Transactions through Retail Electronic Payment Methods etc. Statistical and mathematical tools such as simple growth rate, percentages and averages etc. are used. The paper also highlights the challenges faced by Indian banks in adoption of technology and recommendations are made to tackle these challenges. The paper concludes that in years to come e-banking will not only be acceptable mode of banking but preferred mode of banking.

Key Words: *E-Banking, Information Technology (IT), Unified Payment Interface(UPI), ATMs, Internet Banking.*

1. INTRODUCTION:

Information Technology has become a necessary tool in today’s organizations. Banks today operate in highly globalized, liberalized, privatized and a competitive environment. In order to survive in this environment banks have to use IT. It has introduced new business paradigm. It is increasingly playing a significant role in improving the services in the banking industry. Technology holds the key to the future success of Indian Banks. Various development has taken place in Indian Banking. Among the various development, technology has influenced the way customer interacts with banks. Electronic channels and products such as ATMs, Cards, Internet Banking and Mobile Banking are offered along with traditional branch channel. For Example, usage of digital banking in developed countries is more than 90 per cent and diffusion of digital channels in developing countries range from 11 per cent to 25 per cent. There is greater propensity of consumers to move towards digital channels. Banks which develop digital capabilities are going to benefit.

Technology is enabling banks to provide the convenience of anytime-anywhere-banking. Banks are now re-engineering the way in which their services can be reached to their customers by bringing in flexibility in their “distribution channels”. The earlier brick-and-mortar branch is no longer sufficient; technology is now taking banks to the homes or offices, 24hours a day, 365 days a year through ATMs, phone banking and PC banking.

In Banking Industry remarkable change is taken place that there is a shift from traditional channel to electronic channels. Thus, the existence of “ELECTRONIC BANKING” becomes inevitable due to the standards required to be matched at the international level.

The paper offers important contributions to the existing literature on electronic banking. It is evident that significant developments are taking place on the front of electronic banking which we categorize as revolution. India is no exception to the revolution in electronic banking. Regulators are forming specialized organization with an objective to focus on retail electronic payment system in India. In this regard, the major milestone has been the formation of “**NATIONAL PAYMENTS CORPORATION OF INDIA**”. National Payments Corporation of India (NPCI) is the umbrella organisation for all retail payment system in India, which aims to allow all Indian citizens to have unrestricted access to e-payment services. NPCI has played a major role in the growth of electronic payments.

2. EVOLUTION:

E-Banking came into being in UK and USA in 1920s. It became prominently popular during 1960s through electronic funds transfers and credit cards. The concept of banking came into existence in Europe and USA in the beginning of 1980s. It has been estimated around 40 per cent of banking transactions.

E-Banking was first started in 80’s. The term ONLINE became famous in the late 80’s. Online banking during the formative years included usage at terminal, keyboard and TV(or monitor) with an intention to approach the banking system using a phone line. Online services started in New York in 1981 when four of the city major banks offered home banking services using the videotext system. Later on, the concept of videotext became popular in France. In UK First home online banking services were set up by the Nottingham Building Society (NBS) in the year 1983. It was based on the Uk’s Prestl system and used a computer. It provides customer an option to make bill payment for gas, electricity and telephone companies and accounts with other banks. Major developments in electronic banking can be summarized with the help of Following table 1.

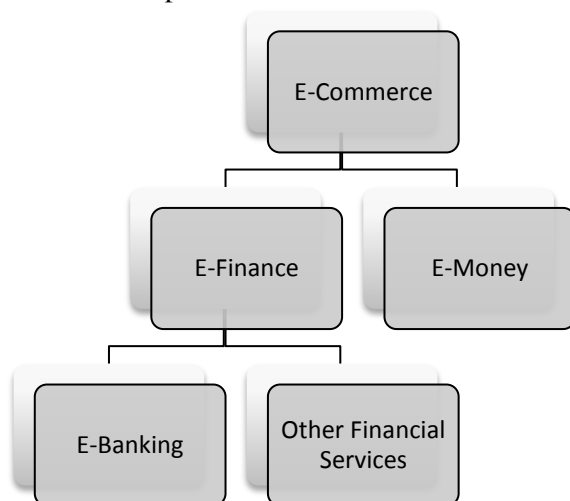
TABLE 1

Year	Major developments
1981	Start of Home banking using videotext system
1983	Launch of Home online banking by Nottingham Building Society
1994	Online bank by Stanford Federal Credit Union

3. E-BANKING:

E-Banking is the term that signifies and encompasses the entire sphere of technology initiatives that have taken place in the banking industry. E-Banking is a generic term making use of electronic channels through telephone, mobile phones, internet etc. for delivery of banking services and products. The concept of E-Banking refers to the use of internet as a remote delivery channel for Banking services such as opening a deposit account or transfer funds at different accounts etc. There is an advantage for customers as it provides opportunity to handle their banking transactions without visiting Banking institutions.

At the basic level, E-Banking includes the setting up of a web page by a bank to give information about it product and services. At an advance level, it involves provision of facilities such as accessing accounts, funds transfer, enabling integrated sales of additional process and access to other financial services such as investment and insurance.



4. E-BANKING AND ITS UTILIZATION:

Electronic Banking also known as Internet Banking is the latest in the series of technological wonders of the recent past. ATMs, Tele-Banking, Internet Banking, Credit Cards and Debit Cards have emerged as effective delivery

channels for traditional banking products. Banks know that the Internet opens up new horizons for them and moves them from local to global frontiers. IB refers to systems that enable bank customers to get access to their accounts and general information on bank products and services through the use of bank's website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations. It is the types of services through which bank customers can request information and carry out most retail banking services such as balance reporting, inter account transfers, bill-payment, etc., via telecommunication network without leaving their home/organization. It provides universal connection from any location worldwide and is universally accessible from any internet linked computer.

Information technology developments in the banking sector have speed up communication and transactions for clients. It is vital to extend this banking feature to clients for maximizing the advantages for both clients and service providers. Internet is the cheapest delivery channel for banking products as it allows the entity to reduce their branch networks and downsize the number of service staff. The navigability of the Website is a very important part of IB because it can become one of the biggest competitive advantages of a financial entity. Bankers consider 'minimizes inconvenience', 'minimizes cost of transactions' and 'time saving' to be important benefits and 'chances of government access', 'chances of fraud' and 'lack of Information security' to be vital risks associated with electronic banking. Due to increase in technology usage the banking sector's performance increases day by day. IB is becoming the indispensable part of modern day banking services.

5. E-BANKING IN INDIA:

In India E-Banking is of fairly recent origin. The traditional model for banking has been through branch banking. Only in the early 1990s there has been start of non-branch services. The good old manual system on which Indian Banking depended upon for centuries seem to have no place today. The credit of launching internet banking in India goes to ICICI Bank. Citibank and HDFC Bank followed with internet banking services in 1999. Several initiatives have been taken by the government of India as well as the Reserve Bank to facilitate the development of e-banking in India. The Government of India enacted the IT act, 2000 with effect from October 17, 2000 which provided legal recognition to electronic transactions and other means of electronic commerce. The Reserve Bank is monitoring and reviewing the legal and other requirements of e-banking related challenges would not pose a threat to financial stability. A high level committee under chairmanship of Dr K.C. and members from IIT, IIM and IDRBT, Banks and The Reserve Bank prepared the "IT Vision Document 2011-17", for the Reserve Bank and banks which provides an indicative road map for enhanced usage of IT in the banking sector.

To cope with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of them. The competition has been especially tough for the public sector banks, as the newly established private sector and foreign banks are leaders in the adoption of e-banking. Indian banks offer to their customers following e-banking products and services:

- Automated Teller Machines (ATMs)
- Internet Banking
- Mobile Banking
- Smart Cards
- Electronic Clearing Services
- Electronic Clearing Cards
- Telebanking
- Phone Banking
- Electronic Fund Transfer

The three broad facilities that E-Banking offers are:

- **Convenience-** Complete your banking at your convenience in the comfort of your home.
- **No more Queues-** There are no queues at an online bank.
- **24x7 service-** Bank online services is provided 24 hours a day, 7 days a week and 52 weeks a year.

6. ANALYSIS AND INTERPRETATIONS OF TOOLS OF E-BANKING:

- **Automated Teller Machines (ATMs):** ATM is a modern device introduced by the banks to enable the customers to have access to money day in day out without visiting the bank branches in person. The system is known as 'Any Time Money' or 'Anywhere Money' because it enables the customers to withdraw money from the bank from any of its ATMs round the clock. On most modern ATMs, the customer identified by

inserting a plastic card with a magnetic stripe or a plastic smart card with a chip, that contains user account number. Then customer identity verify by entering a PIN (Personal Identification Number) of four or more digits.

TABLE - 1.1

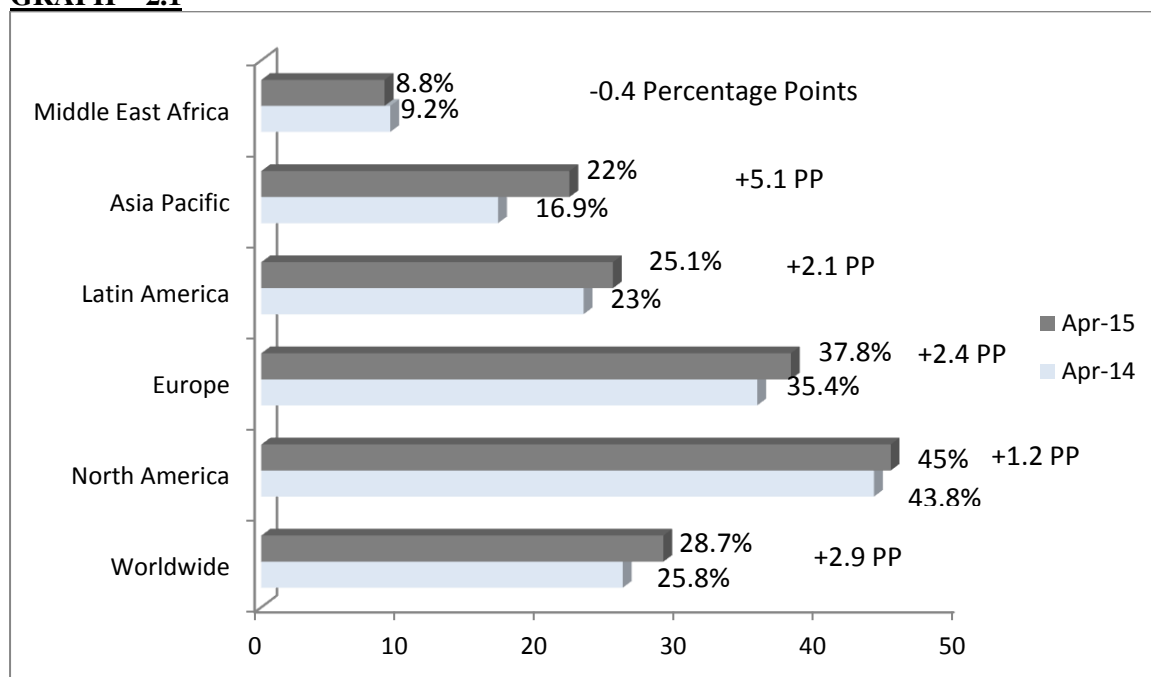
	Off- Site	On-Site
Total number of ATMs	97731	107420

TABLE – 1.2

S.No.	Name of the Bank	Total No. of ATM as 31.03.2015	Total No of ATMs planned for installati on in 2015-16	No of ATMs installed in during reporting quarter march 2016	Cumula tive No. of ATMs installe d from 2015-16	Total No. of ATMs of the Bank as on 31.03.2016 (3+6)	% of Cumulative Progress in the Reporting Quarter
1	2	3	4	5	6	7	8
1	Allahabad Bank	1168	150	3	44	1212	29.33
2	Andhra Bank	2399	1000	295	1237	3636	123.70
3	Bank of Baroda	8338	1662	270	1772	10110	106.19
4	Bank of India	6771	729	20	1036	7807	142.11
5	Bank of Maharashtra	1849	56	2	12	1861	21.43
6	Canara Bank	8533	250	260	895	9251	358.00
7	Central Bank of India	4835	665	114	419	5254	63.00
8	Corporation Bank	2933	300	0	107	3040	35.66
9	Dena Bank	1482	200	50	-11	1471	-5.50
10	IDBI Bank	3000	500	85	310	3310	62.00
11	Indian Bank	2344	250	14	440	2784	176.00
12	Indian Overseas Bank	3571	400	35	222	3793	55.50
13	OBC	2488	100	90	113	2566	113.00
14	Punjab & Sind Bank	1268	170	8	74	1341	43.53
15	PNB	8348	1700	579	1115	9463	65.69
16	SBH	2342	100	21	38	2380	38.00
17	State Bank of India	45502	4200	1115	4222	49724	101.00
18	State Bank of Mysore	1334	170	32	82	1416	48.24
19	State Bank of Patiala	1440	50	17	67	1507	134.00
20	State Bank of Travancore	1602	100	8	105	1707	105.00
21	Syndicate Bank	3427	300	59	303	3730	101.00
22	UCO Bank	2096	637	147	468	2564	73.47
23	Union Bank of India	7020	1000	53	311	6883	31.10
24	United Bank of India	1912	150	14	132	2044	88.00
25	Vijaya Bank	1383	200	67	268	1651	134.00
TOTAL		125043	15039	3358	13781	138798	

- INTERNET BANKING:** Internet banking system in which a personal computer is connected by a network service provider directly to a host computer system of a bank such that customer service request can be processed automatically without need for intervention by customer service representatives. The system is capable of distinguishing between those customer service requests which are capable of automated fulfilment and those request which require handling by a customer service representative. The system is integrated with the host computer system of the bank so that the remote banking customer can access other automated services of the bank. In short, internet banking is a method of banking in which transactions are conducted electronically via the internet.

GRAPH – 2.1



- ELECTRONIC CLEARING SERVICES:** 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.

Primarily, there are two variants of ECS - **ECS Credit and ECS Debit**. ECS Credit is used by an institution for affording credit to a large number of beneficiaries having accounts with bank branches at various locations within the jurisdiction of ECS Centre by raising a single debit to the bank account of the user institution. ECS Credit enables payment of amounts towards distribution of dividend, interest, salary, pension, etc., of the user institution.

ECS Debit is used by an institution for raising debits to a large number of accounts maintained with bank branches at various locations within the jurisdiction of an ECS Centre for single credit to the bank account of the user institution. ECS Debit is useful for payment of telephone / electricity / water bills, cess / tax collections, loan instalments repayments, periodic investments in mutual funds, insurance premium etc., that are periodic or repetitive in nature and payable to the user institution by large number of customers etc.

Based on the geographical location of branches covered, there are three broad categories of ECS Schemes – Local ECS, Regional ECS and National ECS.

TABLE – 3.1

YEARS	ECS DR.		ECS CR.	
	VOLUME(MILLION)	VOLUME(TRILLION)	VOLUME(MILLION)	VOLUME(TRILLION)
2011-2012	149.3	0.7	98.1	1.2
2012-2013	156.7	0.7	117.3	1.8
2013-2014	164.7	0.8	121.5	1.8

- **ELECTRONIC FUND TRANSFER:** EFT System hosted and operated by the RBI, permits transfer of funds, up to rupees 5 lakh from any account at any branch of any member bank in any city to any other account at any branch of any member bank in any other city. This system utilizes the Service Branches of the member banks and the nodal offices of RBI. The Reserve Bank of India acts as the service provider as well as regulator. The NEFT was introduced in 2005. Since its inception the coverage of NEFT has increased. It is called Special Electronic Fund Transfer (SEFT) also. It is covering about 30,000 branches in 500 cities. This has facilitated same day transfer of funds across accounts of constituents at all these branches. Overall EFT and NEFT based clearing grow from rupees 66.3 million to rupees 226.1 million in the year 2009-10 to 2011-12.

Now, the number of transaction of Electronic Fund Transfer is increased to 4951 per month in the current scenario.

- **MOBILE BANKING:** Mobile technology is well accepted and widely available at an affordable price. It is also suitable for banking and payment services and provides huge opportunity to extend financial services to each and every individual irrespective of the place where one is residing. Internet banking has helped the customers by accessing their account anytime, anywhere, at any place. Customers can check their account details, get their banks statement, and perform many transactions in the comfort of their home or office.

Mobile banking reduces this very limitation of internet banking. As mobile banking, reduces the customers' E-banking in India – An Overview 68 requirement to just having a mobile phone for using this service. Mobile phone usage has seen an explosive growth in India in the last decade. The main reason that mobile banking score over internet banking is that mobile banking enables anywhere, anytime banking.

- **Computerisation in Public Sector Banks:** Computerisation as well as the adoption of core banking solutions was one of the major steps in improving the efficiency of banking services. It is important to note that presently almost 98 per cent of the branches of public sector banks are fully computerised and within 10 per cent of branches are on core banking platform. On average during this period 93.02 per cent of branches are fully computerised, 70.2 per cent branches are under core banking solutions and 6.73 per cent of branches are partially computerised. Growth rate in case of fully computerised branches and branches under core banking solutions has increased whereas in case of partially computerised branches it has become declined.

	Branches under core Banking solution	Fully Computerised Branches	Branches Partially computerised
Public sector Banks	28.9	77.5	18.2

7. RECENT DEVELOPMENT: UPI

UPI stands for Unified Payment Interface. UPI is a system that powers multiple bank accounts (of participating banks), several banking services features like fund transfer and merchant payments in a single mobile application. UPI was launched by **NATIONAL PAYMENTS CORPORATION OF INDIA** with **Reserve Bank of India (RBI)** vision of migrating towards a less cash and more digital society. UPI has built on the Immediate Payment Services (IMPS) platform. UPI can be used for multiple common banking tasks. UPI founded on **11 April 2016**.

8. CHALLENGES IN ADOPTION OF E-BANKING:

- **Not safe and secure:** The most serious threat faced by e-banking is that it is not safe and secures all the time. There may be loss of data due to technical defaults.
- **High start-up cost:** E-banking requires high initial start-up cost. It includes internet installation cost, cost of advanced hardware, software, modem, computers, cost of maintenance of all computer equipment's, and cost of reorganizational structure.
- **Lack of Professional:** There is shortage of web developers' content providers and knowledgeable professionals to perform banking activities through internet.
- **Restricted Business:** All banking transactions cannot be performed electronically. Many banking activities require personal visit of customers.

- **Improper infrastructure:** There is lack of proper infrastructure for the installation of e-delivery channels.
- **Not techno savvy:** A majority of customers are not computer savvy.
- **Unavailability of internet services:** availability of internet band width and connectivity is not uniform.
- **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.

9. RECOMMENDATIONS:

The following are certain recommendations to popularise e-banking services/ products:

- **Create awareness about e-banking:** Banks should create awareness among people about e-banking products and services. Customers should be made literate about the use of e-banking products and services.
- **Special arrangements by banks:** Special arrangements should be made by banks to ensure full security of customer funds. Technical defaults should be avoided by employing well trained and expert technicians in field of computers, so that loss of data can be avoided. Banks should use latest technologies with timely updates to secure customers valuable money from the hands of hackers.
- **Specialised training:** Employees of banks should be given special technical training for the use of e-banking, so that they can further encourage customers to use the same.
- **Organising seminars and workshops:** Seminars and workshops should be organised on the healthy usage of e-banking especially for those who are ATM or computer illiterate.
- **Cater to need of customers:** E-banking services should be customised on basis of age, gender, occupation etc. so that needs and requirements of people are met accordingly.
- **Proper infrastructure:** Government should make huge investments for building the infrastructure.
- **Security arrangements by customers:** Customers should never share personal information like PIN numbers, passwords etc. with anyone, including employees of the bank. Documents that contain confidential information should be safeguarded. PIN or password mailers should not be stored, the PIN and/or passwords should be changed immediately and memorised before destroying the mail. Take simple precautions like changing the ATM PIN and online login and transaction passwords on a regular basis. Ensure that the logged in session is properly signed out.

10. CONCLUSION:

Finally, the study concludes that E-banking is need of the hour. Though there are lots of hurdles in the way of smooth implementation of E-banking in India but at the same time E-banking has bright future in India. It is golden path for banking sector in India to maximize its profits and also the customer base. That's why E-banking can never be neglected. Moreover the recommendations provided in this research are useful for the banks and also for the customers for better service and satisfaction respectively. Thus only those banks will survive in the future which will manage the changes as per technological developments and customer requirements because future of the banks ultimately stays in the hands of customers. They should be satisfied at any cost.

Banks are making sincere efforts to popularise the e-banking services and products. Younger generation is beginning to see the convenience and benefits of e-banking. In years to come, e-banking will not only be acceptable mode of banking but will be preferred mode of banking.

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