ABSTRACT

In this era of Liberalization and Privatization Information and technology has entered the banking sector. E banking means any user with a personal computer and browser can get connected to his bank’s website to perform any of the virtual banking functions. Online banking started in New York, USA in 1981 and was introduced in India in nineties. The services offered include: Electronic Payment Services – E-Cheques; Real Time Gross Settlement (RTGS); Electronic Clearing Service (ECS); Automatic Teller Machine (ATM); Point of Sale Terminal; Tele Banking; Mobile banking and Door step banking. Internet banking has its merits and demerits from the Indian perspective. Introduction of E banking is the need of the hour. E banking in India has to confront a lot of challenges. Government has been introducing regulatory measures from time to time to ensure reliability and security. But introduction of technology is not enough. It has to be accompanied by skilled and competent manpower.

Keywords: Internet Banking; E banking; Security; ATM

INTRODUCTION

Information and Communication technology has pervaded all spheres and banking is no exception. In today’s era of Liberalization, Privatization and Globalization, banks have to use Information technology to survive in the existing environment, and Electronic banking can be considered to be the product of the existing situation.

Banking has come a long way where most banks have electronic systems to handle their daily tasks. Increasing competition together with constant changes in technology and lifestyles has changed the face of banking. Customers both corporate and retail do not have the willingness or time to wait in long queues in banks. They prefer to carry out their financial transactions as and where they wish to and E banking seems to be the ideal way for the banks to meet the requirements.

In this Paper therefore an attempt has been made to look into the origin and concept of E banking, examine their features, discuss the trends in internet banking in India, touch on the merits and demerits, enumerate the challenges confronting the sector and mention the regulatory framework which is in existence in India.

OBJECTIVES

The following are the objectives of the study:

1. To understand the concept of E banking;
2. To examine trends in internet banking in India;
3. To discuss the merits and demerits of e banking;
4. To look into the challenges confronting the sector; and
5. To mention the regulating measures adopted by the government.

**Concept and Origin of E Banking**

Online banking also known as internet banking, E banking or virtual banking can be considered as an electronic payment system that enables customers of a bank or other financial institutions. Online banking will directly connect or be part of core banking system which is operated by a bank. This is in contrast to the traditional branch banking.

Simply said internet banking or E banking means any user with a personal computer and browser can get connected to his bank’s website to perform any of the virtual banking functions.

Online banking started in New York, USA in 1981 where major city banks namely: Citi Bank, Chase Manhattan, Chemical and Manufacturers Hanover – used Video Tex system to offer home banking services.

The opening of the Indian economy in 1991 marked the entry of foreign banks. The ICICI Bank started online banking in 1996. The use of internet banking increased only after 1999, largely due to lower ISP online charges, increased Personal Computer penetration and technologically friendly atmosphere.

The Internet Banking Policy has been approved by the Bank’s Board. This Policy fits into the banks overall Information Technology and Information Security Policy and guarantees confidentiality of records.

**Features of E Banking**

The following are the features of Internet banking:

One, the bank customer can perform the following tasks through online banking:

i) Viewing Account balance;
ii) Viewing recent transactions;
iii) Downloading bank statements;
iv) Viewing images of paid cheques;
v) Ordering cheque books;
vi) Downloading of periodic account statements;
vii) Downloading applications of M banking, E banking etc.

Two, customers can transact banking tasks such as:

a) Fund transfer between customers’ linked accounts;
b) Paying third parties such as bill payments;
c) Investment, purchase or sale;
d) Loan applications and transactions;
e) Credit Card applications;
f) Making bill payment

Three, financial administration;

Four, Management of multiple users having varying levels of authority;

Five, transactions approval process.
Services Offered By E Banking

The services offered include:

**Electronic Payment Services – E-Cheques** - This novel concept was first developed in US, to eventually replace the conventional paper ‘cheque’. The Negotiable Instruments Act has been amended in India. This facilitates truncated cheque and E-cheques;

**Real Time Gross Settlement (RTGS)** - This system was introduced in 2004 to help in giving of instructions by banks to transfer the funds from their account to the account of another bank;

**Electronic Fund Transfer (EFT)** - Under this system a person who wants to make payment to another person or organization can approach his bank and make cash payment. He can also authorize the bank to transfer funds directly from his Account to the bank of the receiver. The RBI provides this service in India.

**Electronic Clearing Service (ECS)** - This facility is essentially applicable to government departments/corporate bodies to make or receive large volumes of payments.

**Automatic Teller Machine (ATM)** - ATM is a popular and convenient device which provides the customer the facility to withdraw money 24 hours a day and seven days a week.

**Point Of Sale Terminal** - This computer terminal is linked online to the computerized customer information files in a bank. In addition there exists a magnetically encoded plastic transaction card which helps in the identification of the customer to the computer. In case of any transaction the customer’s account is debited and the amount from retailers is credited by the consumer for the amount of purchase.

**Tele Banking** - This facilitates non-banking transactions of the consumers on the telephone. Automatic voice recorders are used for simple queries and transactions, on the other hand manned phone terminals are used for carrying out complicated queries and transactions.

**Mobile Banking** - This is a facility provided by the bank to carry out financial transactions remotely by using a mobile device such as mobile phone, or tablet and using software called an app which is provided by the financial institution for the purpose.
Door Step Banking- This implies picking up cash and delivery of cash from the door step of the customer (individual, non - individual and corporate). Only those customers with proper KYC procedures can avail of the facility provided either at their residence or office.

Trends in E Banking In India

The trends can be shown by the following tables and graphs

**Table 1.** ATMs of Scheduled Commercial Banks as percentage of total branches

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of total branches</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>47.5</td>
</tr>
<tr>
<td>2008</td>
<td>56.9</td>
</tr>
<tr>
<td>2009</td>
<td>57.0</td>
</tr>
<tr>
<td>2010</td>
<td>87.0</td>
</tr>
<tr>
<td>2011</td>
<td>100</td>
</tr>
<tr>
<td>2012</td>
<td>100</td>
</tr>
<tr>
<td>2013</td>
<td>100</td>
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<tr>
<td>2014</td>
<td>100</td>
</tr>
<tr>
<td>2015</td>
<td>100</td>
</tr>
</tbody>
</table>

**Graph 1.** ATMs of Scheduled Commercial Banks as percentage of total branches

The table and graph show a steady rise in ATMs, with 100% being achieved and maintained from 2011 to date.

**Table 2.** Computerization of public sector banks as percentage of total bank branches

<table>
<thead>
<tr>
<th>Year</th>
<th>Fully Computerized</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>85.6</td>
</tr>
<tr>
<td>2008</td>
<td>93.7</td>
</tr>
<tr>
<td>2009</td>
<td>95</td>
</tr>
<tr>
<td>2010</td>
<td>97.8</td>
</tr>
<tr>
<td>2012</td>
<td>100</td>
</tr>
<tr>
<td>2013</td>
<td>100</td>
</tr>
<tr>
<td>2014</td>
<td>100</td>
</tr>
<tr>
<td>2015</td>
<td>100</td>
</tr>
</tbody>
</table>
Since 2012-13 there is complete computerization of public sector banks in India.

### Table 3. Internet Usage as Percentage of population

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>0.1</td>
</tr>
<tr>
<td>1999</td>
<td>0.3</td>
</tr>
<tr>
<td>2000</td>
<td>0.5</td>
</tr>
<tr>
<td>2001</td>
<td>0.7</td>
</tr>
<tr>
<td>2002</td>
<td>1.6</td>
</tr>
<tr>
<td>2003</td>
<td>2.1</td>
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<tr>
<td>2004</td>
<td>3.6</td>
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<tr>
<td>2005</td>
<td>4.5</td>
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<tr>
<td>2006</td>
<td>3.6</td>
</tr>
<tr>
<td>2007</td>
<td>3.7</td>
</tr>
<tr>
<td>2009</td>
<td>7.0</td>
</tr>
<tr>
<td>2010</td>
<td>8.5</td>
</tr>
<tr>
<td>2012</td>
<td>11.4</td>
</tr>
<tr>
<td>2015</td>
<td>30</td>
</tr>
</tbody>
</table>

After a steady rise in internet users, there was a sudden leap in 2015 from 11.4% to 30%.
Indian banking industry has seen an increase in ECS Credit, ECS Debit and NEFT.

**Benefits of E Banking**

E banking has both merits as well as demerits. Let us discuss them.

**Merits**

Firstly, it is more convenient as compared to the traditional banking method as you can complete all your banking operations according to the time and place which suits the customers. This allows them to carry on business without standing in long queues;

Secondly, the internet facility is available for 24 hours through the 365 days of the year. This leads to saving time and money;

Thirdly, on account of lack of significant infrastructure and overhead costs, direct banks are able to pay high rate of interest on savings and charge lower mortgage and loan rates;

Fourthly, e banking leads to mobility. The introduction of new applications expands and improves their capability on smartphones and other mobile devices;

Fifthly, it facilitates transfers as accounts can automatically be funded from a traditional bank account via electronic transfer;

Sixthly, it is easy to use and easy to set up and does not require any additional information in relation to the traditional bank. The payees’ information while inputting data, is retained which eliminates reentering of information on subsequent checks;

Finally, it is environment friendly. This is so because electronic transmission requires no paper, reduces traffic and subsequent pollution.

**Demerits**

One, a traditional bank helps in developing personal relations, something absent in case of e banking. This can be useful in obtaining a loan or getting a special service generally not offered to the public;

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**Table 4. Value of Electronic Transactions of Commercial Banks**

<table>
<thead>
<tr>
<th>Year</th>
<th>ECS Credit</th>
<th>ECS Debit</th>
<th>NEFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-07</td>
<td>83,273</td>
<td>25,441</td>
<td>77,446</td>
</tr>
<tr>
<td>2007-08</td>
<td>7,82,222</td>
<td>48,937</td>
<td>1,40,326</td>
</tr>
<tr>
<td>2008-09</td>
<td>8,97,487</td>
<td>66,976</td>
<td>2,51,959</td>
</tr>
<tr>
<td>2009-10</td>
<td>1,17,613</td>
<td>69,524</td>
<td>4,09,507</td>
</tr>
<tr>
<td>2010-11</td>
<td>1,81,686</td>
<td>73646</td>
<td>9,39,149</td>
</tr>
</tbody>
</table>
Two, while a traditional bank can call experts and solve issues, e banking may not be able to complete complex transactions and address complicated issues in the absence of face to face and personal contact;

Three, start - up may take time due to completion of certain formalities. Customers need to log in credentials to transact online;

Four, It is very essential that banks are more organized and alert so that information can be strategically placed on the website;

Five, Very often banks upgrade their online programs and at times customers need to re-enter their account information leading to loss of time and energy.

Challenges for E Banking

E banking in India faces a number of challenges. Let us discuss them

1) It is very essential that developing countries have adequate infrastructure and human capacity building before adopting global technology for local requirements;

2) It is very vital that public sector joins hands with private sector and together with multilateral agencies like the World Bank garner public support to e finance related initiatives;

3) The three important features of the banking system were successfully managed before the introduction of e banking. Internet may not be the best base for bank client relation and this may result in partial loss of trust;

4) In today’s world banks provide a number of social services like social banking, better customer services, computerization, innovation mechanism etc. It is necessary that banks provide complete personal service to the customers;

5) Non - Performing assets. They refer to loans which are in danger of default. If the borrower fails to make the payment of interest or principal within 90 days they are called non - performing assets. The challenge is to take care and regulate regular repayment of loans;

6) Nationalized banks have to face stiff competition from foreign and private sector banks. This poses challenges such as product positioning, innovative ideas, new market trends etc. It is essential that skilled and trained manpower is used to achieve targets.

7) While handling technology it is necessary to achieve and maintain high service and efficiency standards, while remaining cost effective and generating sustainable returns to the shareholders;

8) To maintain security and guarantee good service regulatory reforms have been introduced. It is a big challenge to cope up with these reforms;

9) The commercial banks aim at profit motive through customer service and satisfaction. It is therefore required that awareness is generated and spread among the teeming millions, more so in rural areas where 70% of India’s population stays.

Regulatory Measures Adopted By the Government of India

The Working Group constituted by the Reserve Bank of India to examine different spheres of internet banking lay emphasis on three main areas: technology and security issue; legal issue; and regulatory and supervisory issue as outlined below.

Technology and Security issue. This covers:

1. Appointment of a data base administrator;

2. Banks should have clear defined security policy;

3. Banks must introduce logical access controls to data systems, application software, utilities,
telecommunication etc;
4. Banks must use the proxy service type of firewall to avoid direct connection between the internet and the bank system;
5. All types of computer access should be logged and any security violation be reported and follow up action taken.

Legal Issue includes:
   i) It is mandatory for banks to not only establish the identity but also to conduct proper inquiry about the integrity and reputation of the customers;
   ii) Security procedure adopted by the bank for authenticating uses needs to have legal recognition;
   iii) Banks should institute adequate risk control measures;
   iv) The time frame should be clearly notified to the customers.

Regulatory and Supervisory issue involves:
   i) Only banks which are licensed and supervised in India and have physical presence in the country can offer internet banking;
   ii) Products should be restricted to account holders;
   iii) Services should not include local currency products;
   iv) Overseas branches of Indian banks can offer banking services to their overseas customers.

CONCLUSION
E banking today has become an important weapon of Indian banking, having its spread beyond national boundaries thereby creating a global banking scenario. As seen it is beneficial to both the customers as well as the banks. E banking, however, faces a number of challenges. The Indian Government is taking a number of regulatory measures to ensure safety, security and reliability. The point to be remembered is that technology alone is not enough. It has to be accompanied by intellectual and trained manpower which will improve the performance and make Indian banking more competitive.

REFERENCES