Internet Banking: Challenges and Opportunities in Indian Context

Vikas Chauhan
Research Scholar, PIMR, Indore
vikas.bioinformatics@gmail.com

Dr. Vipin Choudhary
PIMR, Indore
vipin_choudhary@pimrindore.ac.in

Abstract: With the time, the way banks used to operate has changed due to advent of internet in banking institutions. The implementation of internet in banking organizations has modernized the banks. Implementing the internet banking approach has benefited the both i.e. consumers as well as banks. Considering the benefits, the banks all over the globe have implemented the internet banking and banking organizations in India are no exception. Still the concept of internet banking is a fairly new one to Indian consumers as compared to its developed counterparts. The present paper attempts to understand the concept of internet banking as well as study the benefit of internet banking from perspective of consumers as well as banks. Further, this paper discusses the challenges and opportunities associated with the internet banking in Indian context. The discussion concludes that concept of internet banking is slowly gaining acceptance in Indian scenario and efforts are being made by government agencies to make it more popular among consumers.

Keywords: Internet banking, Benefits, Challenges and Opportunities, India.

I. INTRODUCTION

The banks have become an essential component of most of the economies as banking services are described as “engines for economic growth” or act as “conduits towards promoting economic growth” [1]. In recent years the world economy has gone through a new phenomenon which is considered as one the most important changes since the industrial revolution, i.e. The birth of “Internet-based Economy” [2]. Considering the benefits of using internet the banks have started to invest in this newly created market. At the initial level, banks mainly focus on developing the commercial web- sites, with the purpose of promoting their products and services using the internet [3]. Gradually, it was realized by banks that the Internet can be an effective distribution channel too. Now with the changing times the traditional approach of banking is being changed and banks are trying to match up with the recent advancement in the field of technology. Revolutionary developments in information and communication technology (ICT) in the past 20 years have changed the way how banks deal with their bank customers.

With the rapid development of technology, internet plays a significant role in changing the banking scenario. It provides an online platform for various banking transactions through which it offers various services like online payment, online fund transfer, online stock trading and online shopping etc. The use of internet as a delivery channel
for banking services is increasing widely in banking sector. Internet banking facilities enable financial institution and customers to access their accounts, transactions and getting information on financial products & services [4]. Now a day’s most of the commercial banks have launched various services through internet banking including latest service like opening online saving accounts and demand for these services is increasing rapidly.

The concept of e-banking is fairly a new concept in India as compared to its developed counterparts. So the paper deals with defining the concept of Internet banking. Further, the present paper attempts to identify the challenges and opportunities of adopting internet banking in the Indian context.

II. INTERNET BANKING/ E-BANKING: THE CONCEPT & ITS BENEFITS

Internet banking (e-banking) facilitates customers to avail various small and large value banking products and services through electronic channels [5]. Internet banking comprises banking activities or services which can be avail by the customers at any point of time and from any places with their convenience, it is also called PC banking, online banking, cyber banking, virtual banking, etc [6]. Internet banking delivers banking services through the open-access computer network i.e. Internet, directly to customers’ home that can be used with different electronic devices such as personal computer, mobile phone with a browser or desktop software, digital television [7]. So, we can say that Internet banking is about using banking facilities via the internet with the help various electronic devices.

Benefits of using Internet Banking

Using Internet banking is beneficial for both i.e. Costumers as well as banks. The benefits of adopting internet banking are mentioned below:

A. Benefits for costumers

Less waiting time: It offers less waiting time and more convenience as compared to the traditional banking system and significantly lowers the cost structure than traditional delivery channels [8]. It also reduces the time and place limitation and it provides various benefits to consumers so that they feel convenient while doing banking activities.

Ease and Convenience: Internet banking is considered as more efficient in term of ease of use and access [9]. It allows the consumers to make transactions on internet provide them comfort of home or office without going outside. It also enables consumers to keep an eye on their transactions or account activities from their home, office or elsewhere so they can feel satisfied and convenient. Even non transactional facilities like ordering check books online, updating accounts, inquiring about interest rates of various financial products etc. have become much simpler on the internet.

24*7 Availability: With the help of internet banking, costumer can access their banking facilities and services all around the clock i.e. 24 hours and 365 days from anywhere anytime. They don’t need to wait for timing of bank branches.
Self service channel: Internet banking provides their customer a self service channel for various banking services they have not to depend on the bank’s staff and other depending process to avail their services. Internet banking is one of the most popular self-service banking technologies. Continued use of self service technology is positively affected by buyers’ perceived usefulness [10].

Save time and money: Now customers don’t have to go to branch to avail banking services it consist various advantages such as: it will save time, save fuel, do away from traffic, save the environment in term of reducing the use of motor vehicles and reduce waiting time.

B. Benefits for banks

Increased Profitability: Adoption of internet helps the banks to increase their profitability. Banks with Internet banking have better operating efficiency ratios and profitability as compared to banks, which are not using internet facilities [11]. The banks can provide banking services to the consumers using internet banking at a far lower cost as compared to the traditional banking [12].

Cost effective mechanism: The internet banking provides an opportunity of self service channel to the consumers. This help the banks to cut their workforce up to a particular extent that results in reducing the administrative costs bear by the banks. Compared to traditional banking system, internet banking is cost-effective as it reduces the administrative costs and paperwork needed for the bank transactions [13]. Many studies show that electronic banking has successfully reduced operating and administrative cost and fees.

Reach where there is no branch: Internet banking has expanded their geographical reach and may increase customer base through deploying electronic delivery channels at lower cost [14]. Actually, some banks are doing in that way, they are providing banking services exclusively via the Internet in some areas because they do not have bank branches in these areas. whereas many financial institutions are using the Internet banking as a branchless banking to satisfy their existing customers and attract new customers in the perspective of convenience and cost effectiveness.

Improve Customer relationship: - Maintaining the relationship with consumers has become a strategic priority for most of the banks. Using the internet banking technology and facilities can provide a means for banks to develop and maintain a good relationship with their customers by offering easy access to a wide range of products and services [15]. Managing a good relationship with the customers may help to make customer loyalty, customer retention and improve cross-selling. Internet banking facilities have become a useful tool for improving customer satisfaction and increasing cross-selling opportunities [16].

Eco-friendly image: Another important benefit of internet banking is that it is eco-friendly is nature. Internet banking cuts down the paper usage and reduces pollution as people do not have to travel physically and also does not add carbon emissions. Implementing the e-banking facilities in the banks show the concern of the bank towards the environment [17], which further, will help the banks to create an eco-friendly image.
III. CURRENT SCENARIO OF INTERNET BANKING/ E-BANKING IN INDIA

Internet Banking has become an integral part of banking system in India. The concept of e-banking is of fairly recent origin in India. Till the early 90’s traditional model of banking i.e. branch based banking was prevalent, but after that non-branch banking services were started. The Indian government enacted the IT Act, 2000, with effect from the 17th October 2000. To examine different aspects of Internet banking RBI set up a committee on Internet Banking. The committee had focused on three major areas of Internet banking, Technology and security issues, legal issues and regulatory and supervisory issues. RBI had accepted the suggestions and recommendations of the Working committee and accordingly issued guidelines to banks to implement internet banking in India. The old manual systems which were prevalent in Indian banking for centuries seem to replaced by modern technologies.

Table no 1, 2 and 3 exhibit a few facts and figures related to internet/electronic banking to present its current scenario. Table 1 shows evidence for ATM, POS (Point of sale) and electronic cards (credit and debit cards) deployed and issued by the schedule commercial banks (SCBs) in India as on December 2014. It also provides evidence of growing statistics of mobile banking users in India. According to it currently 1,76,410 ATM, 10,58,642 Point of sale devices, 20.36 million credit cards and 500 million debit cards are working in India and 35.5 million bank customers are using mobile banking. Table also shows growth rate of these banking channels and it seems to be great in Indian context. Table no. 2 shows current transaction statistics performed through these banking delivery channels. As high as 6090.98 million transactions are electronically done through ATMs. Table no 3 shows NEFT and RTGS transactions performed in the current financial year 2014-15.

### TABLE 1
VARIOUS INTERNET/ELECTRONIC BANKING DELIVERY CHANNELS.

<table>
<thead>
<tr>
<th>Type of internet/electronic channels</th>
<th>No. of channels</th>
<th>Growth in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2010*</td>
<td>2014**</td>
</tr>
<tr>
<td>No of ATM deployed (In Actual Figure)</td>
<td>60,153</td>
<td>1,76,410</td>
</tr>
<tr>
<td>No of POS deployed (In Actual Figure)</td>
<td>5,95,958</td>
<td>10,58,642</td>
</tr>
<tr>
<td>No of CREDIT CARDS issued (In Millions)</td>
<td>18.33</td>
<td>20.36</td>
</tr>
<tr>
<td>No of DEBIT CARDS issued (In Millions)</td>
<td>181.97</td>
<td>500.08</td>
</tr>
<tr>
<td>No of MOBILE BANKING Users (In Millions)</td>
<td>5.96</td>
<td>35.5</td>
</tr>
</tbody>
</table>


*Data as on April 2010 except from data of POS which is as on April 2011 due to availability.

**Data as on December 2014.
TABLE 2
TRANSACTIONS THROUGH INTERNET/ELECTRONIC BANKING DELIVERY CHANNELS

<table>
<thead>
<tr>
<th>Transaction through</th>
<th>No. of Transactions (In millions)</th>
<th>Growth in %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year* (2011-12)</td>
<td>(2013-14)</td>
</tr>
<tr>
<td>ATM</td>
<td>5086.17</td>
<td>6090.98</td>
</tr>
<tr>
<td>POS</td>
<td>645.76</td>
<td>1128.12</td>
</tr>
<tr>
<td>CREDIT CARD</td>
<td>320.42</td>
<td>511.99</td>
</tr>
<tr>
<td>DEBIT CARD</td>
<td>5409.45</td>
<td>6707.1</td>
</tr>
<tr>
<td>MOBILE BANKING</td>
<td>25.55</td>
<td>94.6</td>
</tr>
</tbody>
</table>

Source: Compiled from Bank wise ATM/POS/Card Statistics, Reserve Bank of India and RBI website.

*Data for whole financial year.

TABLE 3
NEFT AND RTGS TRANSACTIONS

<table>
<thead>
<tr>
<th>Transaction type</th>
<th>No. of Transactions (In millions)</th>
<th>Growth in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEFT</td>
<td>132</td>
<td>927.55</td>
</tr>
<tr>
<td>RTGS</td>
<td>49</td>
<td>92.75</td>
</tr>
</tbody>
</table>

Source: Compiled from Bank wise Volumes in ECS/NEFT/RTGS/Mobile Transactions, Reserve Bank of India.

*Data for whole financial year.

ICICI Bank initiated internet banking in India and later in the year 1999 HDFC Bank and Citibank followed the same. In today’s scenario, with the help of internet various banking and financial services are provided by banks in India.

Internet Banking offers different online services in India. According to a report published by RBI [18] there are three different levels of banking services offered through internet banking:

**The first level i.e. Basic level services:** It is basically about websites which disseminate information about different services and products offered by banks. It generally includes receiving and replying to customers’ queries through e-mail.

**The next level i.e. Simple Transactional Websites:** It allow customers to submit their instructions and applications for different services, queries about their account balances, etc. but do not allow any fund-based transactions on their accounts.

**The third level i.e. Fully Transactional Websites:** It allows customers to manage their accounts, facility of fund transfer, bills payment, ticket booking, avail facility of other banking products and services and trading in securities etc.

The use of the internet by the customers for banking services has seen an upward movement during the 2010-11 survey. According to a report of McKinsey & Company India, the number of bank consumers who use the internet
for banking information and transactions are close 7% of the total bank account holders. As compared to year 2007 it is a seven-fold increase of users opting for internet banking. The increased usage of internet banking has affected the traditional banking system in India i.e. branch based banking as for the first time in the last thirteen years, branch banking has reduced by a 15 percentage points during the same period [19].

To sustain in the growing competition, commercial banks in India have adopted several initiatives to improve banking services and to gain competitive advantage. The few of the initiatives taken by Indian banks for internet banking are mentioned below:

- Bank of India recently launched its card-less cash withdrawal service. This facility helps customers to send money to anyone using Internet banking or by using ATM, with the help of receiver’s mobile number. [20].
- The Business Transformation Program is being implemented by the Bank of Baroda which will provide its customer convenience banking on a 24 X 7 basis in India and abroad with integrated delivery channels like, Internet, Phone, Mobile, and others.
- A number of Indian banks have implemented Online Tax Accounting System (OLTAS) for collection of taxes on behalf of Central Board of Direct Taxes, Government of India. [21].
- ICICI bank launched 24x7 electronic branch, which is a one-stop shop for all banking transactions. It offers facilities such as cheque deposit machine and an electronic kiosk through which customers can be accessed internet banking services. ICICI Bank has also introduced E-Locker for its customers. It is a virtual locker, which can be accessed through ICICI internet banking which facilitates customer to store soft copy of their important documents safely such as legal documents, agreements, policies and various important certificates. ICICI bank is offering various gifts to customers for start to use internet banking for the first time [22].
- The banks are making their presence on social media like Facebook and Twitter for targeting huge customer base as well as potential customers, there will be round-the-clock tweets and comments on the banks' products and services. After launching accounts on Facebook and Youtube, SBI took one more step on the social media by launching a twitter handle [23].

**IV. INITIATIVES TAKEN BY THE GOVERNMENT OF INDIA FOR DEVELOPING THE INTERNET BANKING**

For growth and development and to promote e-banking in India the Indian government and RBI have been taken several initiatives.

- 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 monitors and reviews the legal requirements of e-banking on a continuous basis to ensure that challenges related to e-banking may not pose any threat to financial stability of the nation.
• Dr. K.C. Chakrabarty Committee including members from IIM, IDRBT, IIT and Reserve Bank prepared the IT Vision Document- 2011-17, which provides an indicative road map i.e. guidelines to enhance the usage of IT in the banking sector [24].

• The Reserve Bank is striving to make the payment systems more secure and efficient. It has advised banks and other stakeholders to strengthen the security aspects in internet banking by adopting certain security measures in a timely manner. RBI believes that the growing popularity of these alternate channels of payments (such as: Internet Banking, Mobile Banking, ATM etc.) brings an additional responsibility on banks to ensure safe and secure transactions through these channels. [25].

• National Payments Corporation of India (NPCI) was permitted by the RBI to enhance the number of mobile banking services and widen the IMPS (Immediate Payment Service) channels like ATMs, internet, mobile etc. Along with this, NPCI is also working to bring more mobile network operators which can provide mobile banking services through a common platform. [26].

• On the recommendations of the Damodaran Committee, the guidelines were induced by RBI that provide internet banking as totally secured and protected, zero-liability against loss for any customer induced transaction & multi-lateral arrangements among banks to deal with internet banking frauds. To deal with online banking frauds, customer can approach with their complaints to Banking Ombudsman. Under this Banking Ombudsman Scheme 2006, a customer can file their complaint against any deficiencies in banking service including internet banking, credit cards & ATM [27].

• The Basel Committee on Banking Supervision’s (2001) [28] has defined risk management principles for electronic banking. They primarily focus on how to extend, adapt, and tailor the existing risk-management framework to the electronic banking setting.

V. CHALLENGES IN INTERNET BANKING

The challenges related to e-banking prevail in Indian context are discussed below:

A. Security Risk: The problem related to the security has become one of the major concerns for banks [29]. A large group of customers refuses to opt for e-banking facilities due to uncertainty and security concerns [30], [31]. According to the IAMAI Report (2006), 43% of internet users are not using internet banking in India because of security concerns. So it’s a big challenge for marketers and makes consumers satisfied regarding their security concerns, which may further increase the online banking use.

B. Privacy risk: The risk of disclosing private information & fear of identity theft is one of the major factors that inhibit the consumers while opting for internet banking services. Most of the consumers believe that using online banking services make them vulnerable to identity theft [32], [33]. According to the study [34] consumers’ worry about their privacy and feel that bank may invade their privacy by utilizing their information for marketing and other secondary purposes without consent of consumers.
C. The 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 [35]. 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 [36].

D. Customer Awareness: Awareness among consumers about the e-banking facilities and procedures is still at lower side in Indian scenario. Banks are not able to disseminate proper information about the use, benefits and facility of internet banking. Less awareness of new technologies and their benefits is among one of the most ranked barrier in the development of e-banking [37].

E. Less Internet Penetration in Indian Context: The internet banking channel has evolved over the years. In 2011, 60 percent of the times basic transactions in banks were conducted in North America through online channels, whereas internet banking usage in India increased from 1 percent in 2006 to 7 percent in 2011 [38]. So the knowledge and availability of internet is still a one of the biggest challenges that prevails in Indian context. According to the report of IAMAI 2006 [39] around 22% of internet users do not have knowledge about transferring online. So the penetration of internet and knowledge related to internet are major hurdles.

VI. OPPORTUNITIES RELATED TO INTERNET BANKING

Despite of various challenges that are prevailing in context with e-banking in India, the following opportunities are motivating the marketers for implementing e-banking:

A. Increasing Internet Users & Computer Literacy: To use internet banking it is very important or initial requirement that people should have knowledge about internet technology so that they can easily adopt the internet banking services. The fast increasing internet users in India can be a very big opportunity and banking industry should encash this opportunity to attract more internet users to adopt internet banking services. Table no 4 shows evidence of increasing number of internet users in India. As per the last available data, as on 1 July 2014, there are 243,198,922 Indians who are using internet and it is increasing approximately 3.5 crores every year on an average. It is also shows the rate of growth which is 168 percent since 2010. It is very much evident through the data provided by IAMAI (The Internet and Mobile Association of India)[40]. According to the ComScore Report, 2013 India is now world’s third largest Internet user after U.S. and China [41]. The computer literacy has gone upward in the last decade. Those with higher IT literacy may have a more positive perception towards e-banking in general and may thus, be more likely to accept e-banking services [42].
TABLE 4
INCREASING INTERNET USERS IN INDIA

<table>
<thead>
<tr>
<th>Years*</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet users</td>
<td>90,421,849</td>
<td>122,970,441</td>
<td>155,575,944</td>
<td>213,339,324</td>
<td>243,198,922</td>
</tr>
<tr>
<td>New uses</td>
<td>29,486,779</td>
<td>32,548,593</td>
<td>32,605,503</td>
<td>57,763,380</td>
<td>29,859,598</td>
</tr>
<tr>
<td>Average</td>
<td>36,452,770</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>0</td>
<td>36%</td>
<td>72%</td>
<td>136%</td>
<td>168%</td>
</tr>
</tbody>
</table>

Source: Internet Live Stats (www.InternetLiveStats.com).
*As on July 1 of every year.

B. Initiatives taken by government agencies for financial literacy: Financial literacy and education play a crucial role in financial inclusion, and inclusive growth. A study reported that there is significant impact of financial literacy on use of internet banking. If customers are not financially educated they will simply avoid using new online services and not change their traditional way of banking, thus banks will not be able to convert users into their new online banking strategies [43]. Various government institutions like RBI, SEBI, IRDA and various other market players have taken a number of initiatives on financial education. They have prepared a school curriculum along with various topics including internet banking, banking product and services, net banking to educate the school students, college students, working executives, middle income group, home makers, retired personnel, self help groups etc. [44].

C. Competitive Advantage: The benefit of adopting e-banking provides a competitive advantage to the banks over other players. The implementation of e-banking is beneficial for bank in many ways as it reduces cost to banks [45], improves customer relation [46], increases the geographical reach of the bank [47], etc. The benefits of e-banking have become opportunities for the banks to manage their banking business in a better way.

VII. MANAGERIAL IMPLICATIONS

The present paper gives an overview of the current scenario of Internet banking in the Indian context. The discussion about the challenges and opportunities provide insights to the marketers about the hurdles of internet banking. The marketers need to consider the factors such as security risk, privacy issue and trust while devising the strategies and marketing policies for internet banking.

VIII. CONCLUSION & SCOPE FOR FURTHER RESEARCH

With the time, the concept of internet banking has got attention in the Indian context. Most of the banks have already implemented the e-banking facilities, as these facilities are beneficial to both i.e. banks as well as consumers. But the adoption of e-banking by the consumers is still at the early stage due to various challenges. The challenges
such as security risk, privacy risk, trust factor and less awareness among consumers about e-banking are acting as hurdle in the adoption of e-banking facilities. Considering the challenges and risk related to e-banking, the Government of India along with various government agencies is making an effort to make e-banking more safe, secure and reliable.

The paper only presents the overview of Internet banking in Indian context. Studies in the past have shown that with the time Indian consumers are opting internet banking services with the time. Considering this in mind, the future studies may be conducted to analyze the various factors which influence the consumer intention to adopt internet banking services.

REFERENCES


