INFORMATION TECHNOLOGY IN BANKING SECTOR

RAJESH TIWARI, CFA
Assistant Professor,
Asia Pacific Institute of Information Technology
Panipat, Haryana

RAKESH KUMAR
Assistant Professor,
PG Department of Commerce,
SGGS Khalsa College,
Mahilpur

ABSTRACT

Electronic banking is generally an extension of traditional banking, using the internet as an electric delivery channel for banking products and services. The banking today is redefined and re-engineered with the use of IT and it is sure that the future of banking will offer more sophisticated services to customers with the continuous product and process innovations. Thus there is a paradigm shift from seller’s market to buyer’s market. So banks also change their approach from “Conventional Banking to Convenience Banking” and “Mass banking to Class Banking”. The study examines various relevant issues relating to role of IT in banking and recommends to ensure privacy and confidentiality of data’s, implement IT and other Cyber laws properly. This will ensure the developmental role of IT in the banking industry.

KEYWORDS: e-Banking, Services, Innovation, Challenges.

INTRODUCTION

The Indian banking sector is also trying to wake up from sleep and become proactive till 1990, the Indian banks have been working in a very comfortable and protected environment. However, since then they have been pushed into intense competition due to changed economic policies. The technology is lifting the competition in the banking sector. Traditionally, banks have been using technology to improve their products and efficiency. Today, technology is not only changing the environment but also the relationship with customers. Technology has not broken many barriers but has also brought about superior products and channels. This has
brought customer relationship into greater focus. It is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business. The RBI has assigned priority to the upgradation of technological infrastructure in financial system. Technology has opened new product and services, new market and efficient delivery channels for banking industry. IT also provides the framework for banking industry to meet challenges in the present competitive environment. IT enables to cut the cost of global fund transfer.

IT refers to processing, storing and transferring information. It uses computers, electronic devices such as telephones, mobile phones, fax machines etc. and telecommunication network. IT has defied all geographical boundaries. Information Technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. Internet has significantly influenced delivery channels of the banks. Internet has emerged as an important medium for delivery of banking products and services.

The customers can view the accounts; get account statements, transfer funds and purchase drafts by just punching on few keys. The smart card’s i.e., cards with micro processor chip have added new dimension to the scenario. An introduction of ‘Cyber Cash’ the exchange of cash takes place entirely through ‘Cyber-books’. Collection of Electricity bills and telephone bills has become easy. The upgradeability and flexibility of internet technology after unprecedented opportunities for the banks to reach out to its customers. No doubt banking services have undergone drastic changes and so also the expectation of customers from the banks has increased greater.

IT is increasingly moving from a back office function to a prime assistant in increasing the value of a bank over time. IT does so by maximizing banks of pro-active measures such as strengthening and standardizing banks infrastructure in respect of security, communication and networking, achieving inter branch connectivity, moving towards Real Time gross settlement (RTGS) environment the forecasting of liquidity by building real time databases, use of Magnetic Ink Character Recognition and Imaging technology for cheque clearing to name a few. Indian banks are going for the retail banking in a big way The key driver to charge has largely
been the increasing sophistication in technology and the growing popularity of the Internet. The shift from traditional banking to e-banking is changing customer’s expectations.

**E-BANKING**

Electronic banking is generally an extension of traditional banking, using the internet as an electric delivery channel for banking products and services. E-banking is a range of banking services that utilizes electronic equipment and includes Telephone banking, Net Banking, ATM, Debit/Credit Card, EFT, AFT etc. Many banks have modernized their services with the facilities of computer and electronic equipments. The electronics revolution has made it possible to provide ease and flexibility in banking operations to the benefit of the customer. The e-banking has made the customer say good-bye to huge account registers and large paper bank accounts.

The use of ATM’s lead to the concept of ‘anywhere’ and ‘anytime’ banking. Through the use of ATM cards, one can operate his bank account to withdraw money from any of the bank’s ATM installed or available at the nearest site. This had broken down the time and apace barriers. The new banks providing some of the services exclusively through ATM’s. The growing popularity of personal computers, easy access to internet and World Wide Web (WWW), has increased the use of internet by banks as a channel for receiving instructions and also delivering their products and services to the customers This is generally referred to as ‘Internet Banking’ ar Net Banking. This is one of the newer form e-banking which is gaining popularity. Process of E-banking starts with opening the website and ends with making the payment. But this process is continuous running which are shown in the diagram given below:-

![Fig 1: Process of E-Banking](https://www.indianresearchjournals.com)
Status of E-Banking in India

E-banking concept now largely implemented in various activities of banks. Following are some payment system indicators which show the progress of E-banking in India.

Table 1: Payment System Indicators

<table>
<thead>
<tr>
<th>Items</th>
<th>VOLUME (IN MILL)</th>
<th>VALUE (RUPEES CRORES)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008-09</td>
<td>2010-11</td>
</tr>
<tr>
<td>1. High value clearing</td>
<td>21.8</td>
<td>0.0</td>
</tr>
<tr>
<td>2. RTGS</td>
<td>13.4</td>
<td>49.3</td>
</tr>
<tr>
<td>3. MICR CLEARING</td>
<td>1142</td>
<td>1155</td>
</tr>
<tr>
<td>4. NON-MICR CLEARING</td>
<td>233.6</td>
<td>232.3</td>
</tr>
<tr>
<td>5. ECS DR</td>
<td>160</td>
<td>156</td>
</tr>
<tr>
<td>6. ECS CR</td>
<td>88.4</td>
<td>117.3</td>
</tr>
<tr>
<td>7. EFT/NEFT</td>
<td>32.2</td>
<td>132.3</td>
</tr>
<tr>
<td>8. Credit Cards</td>
<td>259.6</td>
<td>265.1</td>
</tr>
<tr>
<td>9. Debit Cards</td>
<td>127.7</td>
<td>237.1</td>
</tr>
</tbody>
</table>

(Source :- RBI)

The table shows that the use of debit cards for payment is most commonly used instrument in Indian banking sector. However RTGS and ECS CR system also showing progress also. The table also shows the progress of transactions under e-banking in 2010-11 as compare to 2008-09.

The electronic mode of transactions in India has been rapidly increasing. Below are the tables which show the increasing of E-mode of banking services both in value & volume from 2008-09 to 2010-11.
Fig 2: Share of Paper Based v/s Electronic (in Value)

Fig 3: Share of Paper Based v/s Electronic (in Volume)

(Source: RBI Statistics of Banks)
The table shows that the share of electronic transactions out of total transactions has been increasing in the past 3 years both as value as well as volume. In value, more than 10% increase per year in the electronic mode transactions. The reason behind this is to use various e-banking devices by the customers. But in volume, there is slightly increasing in e-mode transactions from 2008-09 to 2010-11. The share of total volume through e-mode is larger than paper based mode. These figures show the progress of e-banking services in India.

With the increased use of e-banking services, the relationship of banks with their customers is now stronger.

**BENEFITS OF E-BANKING:**

**To the Customer:**

Anywhere Banking no matter wherever the customer is in the world. Balance enquiry, request for services, issuing instructions etc., from anywhere in the world is possible.

Anytime Banking – Managing funds in real time and most importantly, 24 hours a day, 7 days a week according to convenience of the customers.

Brings down “Cost of Banking” to the customer over a period of time.

Cash withdrawal from any branch / ATM. On-line purchase of goods and services including online payment for the same.

**To the Bank:**

Innovative, scheme, addresses competition and present the bank as technology driven in the banking sector market.

Reduces customer visits to the branch and thereby human intervention. Inter-branch reconciliation is immediate thereby reducing chances of fraud and misappropriation.

On-line banking is an effective medium of promotion of various schemes of the bank, a marketing tool indeed. Integrated customer data paves way for individualized and customized services.
Impact of IT 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-to-one 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.

The modern bank cannot rely on its branch network alone. Customers are now demanding new, more convenient, delivery systems, and services such as Internet banking have a dual role to the customer. They provide traditional banking services, but additionally offer much greater access to information on their account status and on the bank’s many other services. To do this banks have to create account information layers, which can be accessed both by the bank staff as well as by the customers themselves. The use of interactive electronic links via the Internet could go a long way in providing the customers with greater level of information about both their own financial situation and about the services offered by the bank.

Impact of IT on Privacy

Data being stored in the computers is now being displayed when required on through internet banking mobile banking, ATM’s etc. all this has given rise to the issues of privacy and confidentiality of data are:

The data processing capabilities of the computer, particularly the rapid throughput, integration, and retrieval capabilities, give rise to doubts in the minds of individuals as to whether the privacy of the individuals is being eroded.

So long as the individual data items are available only to those directly concerned, everything seems to be in proper place, but the incidence of data being cross referenced to create detailed individual dossiers gives rise to privacy problems.
Customers feel threatened about the inadequacy of privacy being maintained by the banks with regard to their transactions and link at computerized systems with suspicion.

**CHALLENGES**

It has not been a smooth sailing for banks keen to jump onto the IT bandwagon. There have been impediments in the path like the obduracy once shown by trade unions who felt that IT could turn out to be a threat to secure employment.

Further. The banks face difficulties to expand its branch networks in remote areas due to lack of facilities. Another challenges the banks have had to face corners the inability of banks to retain the trained and talented personnel, especially those with a good knowledge.

Increasing used of IT in banks has also brought up security concerns. The passing of IT Act has come as a boon to the banking sector and banks should now ensure to abide strictly by its covenants. An effort should be also made to cover e-business in the country’s consumers laws.

The choice of right channel, justification of IT investment on ROI, E-Governance disclosures, customers relationship management, penetration of IT in rural areas, outsourcing of IT operations are the major challenges and issues in the use of IT in banking operations.

**FUTURE OUTLOOK IN INDIA**

The Indian banks lag far behind the international banks in providing online banking. In fact, this is not possible without creating sufficient infrastructure or presence of sufficient number of users. The experience of ICICI Bank Ltd. And HDFC Bank Ltd. Shows that the number of transactions carried out on the NET are very limited. Technology is going to hold the key to future of banking. Banking achievements not possible without IT revolution. So banks should try to find out the trigger of change. The approach of the IT concept to the rural area may also be adopted. More and more regional languages software’s could be introduced to attract more and more people from rural area also. The surplus manpower generated by the use of IT should be used for marketing new schemes of the banks.
CONCLUSION

IT has no doubt changes the overall pattern of banking system. The banking today is redefined and re-engineered with the use of IT and it is sure that the future of banking will offer more sophisticated services to customers with the continuous product and process innovations. Thus there is a paradigm shift from seller’s market to buyer’s market. So banks also change their approach from “Conventional Banking to Convenience Banking” and “Mass banking to Class Banking”. So banks are now more concentrate on providing value added services to customers. But IT can be fully useful only if they enable to met the challenges in the present environment. In India it can be successful only if it is properly implemented in rural areas also. There is also need to maintain privacy and confidentiality of data’s. Many nations deem privacy to be a subject of human right and consider it to be the responsibility of those who concerned with computer data processing for ensuring that the computer use does not revolve to the stage where different data about people can be collected, integrated and retrieved quickly. Another important responsibility is to ensure the data is used only for the purpose intended. For this, there is a need to implement IT and other Cyber laws properly. This will ensure the developmental role of IT in the banking industry.

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