

Application of Information and Communication Technology in Banking Industry: An Overview

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Abstract-Technology is the key to success. It provides enormous benefits to consumers and to banks in terms of the ease and cost of transactions. But it also poses new challenges to use these technologies. Many financial and non financial organizations have been using the computers, mobile phones and internet to communicate and deliver their products and services. Banking industry has been also using these advanced communication technologies as a source to connect with their customers. The present paper aims to highlight the application of Information and Communication Technology in the banking Industry.

Index Terms- Information and Communication Technology, banking industry, financial and non-financial organization.

1. INTRODUCTION

The development of an economy depends upon the development of all the industries or sectors. Further, among all the sectors banking sector plays a crucial role in the development of the economy. Banking Industry is providing a series of financial and non-financial services to their customers. In the present era, these banking services are providing in an affordable and portable manner and it become possible only due to the Information and Communication Technology (ICT). ICT refers to those technologies that provide access to information through telecommunication. It is an umbrella term that includes any communication device. With the help of ICT, banks are offering these services at the door of their customers or in the public place[1]. To catch up with global development, improve the quality of customer service delivery, and reduce transaction cost, banks have invested heavily in ICT [2]. Adoption of new technology in banks has improved customers services, facilitates accurate records, provides home banking services, ensure convenient business hours, fair attention and enhance the faster services. This technology makes money to be carried in information storage medium such as cheques, credit cards, and electronic means than its pure cash form. E-banking has thus become important channel to sell Products and Services [3]. The use of technology is improving the control system of management by providing genuine information through effective modes. Automation in

the banking system made banking industry more effective. ATMs, Tele banking, RTGS, NEFT and mobile banking now are in big use. Customers can view the accounts, get account statement and transfer funds by just making a few key punches.

2. APPLICATION OF ICT IN THE BANKING INDUSTRY

We can examine the application of ICT in Banking Industry through those innovative products which are used by the banks for providing their services.

2.1. Automatic Teller Machine (ATM)

ATM is an e-banking device that provides the client of a financial institution to make a financial transaction in a public space without the need for a cashier or human clerk. In ATMs, customers are identified by inserting a plastic ATM card with a magnetic strip that contains a unique card number and security information. Each ATM card has a unique PIN code, which is used as a security measures. ATM cards can be used in an ATM for making transactions such as withdrawal, getting information about account, balance inquiry, mini statements and other types of financial and non-financial transactions [4].

2.2. Internet banking/Online banking

It is a term used for performing multiple banking transactions over the internet. Online banking is an electronic payment system that enables customer's o a financial institution to conduct financial

transactions on a website operated by the institution [5].

2.3. Real Time Gross Settlement (RTGS)

RTGS is a fund transfer system where transfer of money takes place from one bank to another on a 'real time' and on 'gross' basis. Settlement in real time means there should be no waiting period. The transactions are settled as soon as they are processed. Whereas, gross settlement means the transactions should be settled one by one without bunching with any other transaction. The payments made by the RTGS are fully irrecoverable. In India, it has been implemented w.e.f. March 26, 2004 [6].

2.4. National Electronic Fund Transfer (NEFT)

NEFT is a nationwide payment system facilitating one-to-one funds transfer. With the help of NEFT any individual, firm and corporate can electronically transfer funds from any bank branch to any individual, firm or corporate having an account with any other bank branch in the country participating in this scheme. It was launched in Oct. 2005 in India [7].

2.5. Core Banking System

CBS allows the customers to operate accounts from any branch if it has installed core banking solutions. CBS is networking of branches, which enables customers to operate their account and avail banking services from any branch of the bank of CBS network, regardless where he maintains his account. This new platform has changed the way banks are working. Now the customer is Bank's customer not the branch's customer [8].

2.6. Plastic money

It is a term used for all types of banks cards like debit card, credit card, smart card etc. Due to plastic money the risk of cash handling has been reducing. Now the customers can withdraw money at any place in the glob depend upon the type of card [9].

2.7. Mobile Banking

M-Banking is a term used for doing banking transactions through mobile phones. Mobile phones are playing a big role as delivery channels of banking services. The rapid growth and wider coverage of mobile phones network makes it easy to approach far

areas for banking industry. With the growth in the number of phone subscribers, banks have been exploring the feasibility of using mobile phones as an alternative channel of delivery the banking services [10, 11].

2.8. Tele Banking

It is the service provided by banks where customers can do their banking on the phone. Customers will need to register first and generate a pass word and will be given a phone number to call and do all the banking transaction from anywhere and anytime.[12]

3. BENEFITS OF ICT IN BANKING INDUSTRY

Use of new innovations and technologies in banking sector make the life of bank customers and employees easier. Some benefits of ICT in banking industry are pointed out as under:

3.1. Convenience

The use of ICT in banking sector has enhanced the convenience for customers as well as for bank. Now customers do not have to stand in ques. They can access their account easily.

3.2. Any time any where banking

Now we can use banking services anywhere at any time. No need to wait, whenever they are needed we can use them. It becomes possible only due to the ICT innovations and the technologies. It leads to 24*7 banking.

3.3. Enhanced customers awareness

Customers are more aware about new technologies used by the banking sector. Banks are providing knowledge and awareness to customers about new product and services which they are using. It is enhancing the business of banks, and savings of customers.

3.4. Wider networking

Due to ATMs, plastic money, mobile banking and other products of E-banking we can access banking services in remote areas. Now, no one is far away from the banking. Through the SWIFT we can make cash transfers global or internationally.

3.5. Cost and time saver

The new technologies used by banking sector are cost and time effective as compared to traditional banking

system. The need to go to banks for each and every transaction is not required now. We can use any e-banking product to avail banking service at our home or in a public place. It is also cost and time effective for banks. The cost of transaction handling is reduced. The e-banking system saves the time of bank employees as well as customers.

3.6. Speedy/faster processing

In traditional banking system we had to stand in queues and wait for our turn. But now no need to wait. We can easily use the banking services and the process is also very fast.

3.7. Enhancing the secured network

Use of computer based system in banking industry has been enhancing the secured banking network. For using the e-banking service like, ATM, M-Banking and Internet banking etc. the customers get a unique number i.e. password, which is different for every customer. Also many laws like Cyber law, Banking Act and also rules and regulations given by the RBI increased the secured banking network.

4. CAUSES BEHIND THESE INNOVATIONS

Since nationalization of banks in 1969, the banking sector had been dominated by the public sector. There was a low degree of competition; role of technology was limited and no risk management etc. This resulted in low profitability and ineffective management. The Government decided to introduce comprehensive economic reforms. Banking sector reforms were part of this package. The Government of India and RBI set up a number of committees to define and co-ordinate banking technology. The factors which were behind these reforms

4.1. High cost

Before the introduction of computers the transaction handling cost was very high. Banks had to manage all the document and transactions manually or in other words we can say traditional banking system was labor intensive. But, after the introduction of computers and other technologies, the handling cost has been reducing.

4.2. Large volume of transactions

From the beginning, banks are playing a role of intermediary that accepts deposits and channels those deposits into development activities. These transactions are very large in the volume. It leads to

innovating and adopting new products in the banking sector.

4.3. Delay in services

In traditional banking system, customers had to wait for their turn. They had to stand in queues. For each and every transaction they had to visit banks. These all were leading to delay in availing the services. That's why it became essential for banks to introduce those technologies through which customers can easily access their accounts.

4.4. Recommendations given by different committees

The use of new technology in banking sector is the result of recommendations given by different committees, which were appointed by RBI and Government of India like, DR. D. Rangarajan Committee (1983) W. S. Saraf Committee (1994), Shere Committee (1995), Narasimhan Committee (1998) etc.

4.5. Increase in competition

Due to Liquidation, Privatization and Globalization (LPG) the competition has been increasing rapidly. To compete with national and international competitors, it is required to adopt new techniques which are prevailing in the market.

4.6. Global change

Market has one main character i.e. uncertainty. Nothing is certain in market, if any business want to survive and want a better share of market then they have to use those technologies which are used by their competitors.

5. RESEARCH METHODOLOGY

We are living in a global world where each and every industry is inter-dependent. The development of any industry should be achieved through the development of new technologies and facilities. Indian banking has been growing from last two decades. It has become possible only because of the new innovations by the Information and Communication Technology. So a need has arrived to know the application of these technologies in banking sector and the importance of ICT in the development of banking industry.

5.1. Objective

The study is based on following pin pointed objectives:

- To know the innovations of ICT which are used by the banks.
- To get an overview of banking sector with special reference to Information and Communication Technology.

5.2. Data Collection

The study is based on secondary data. The data was collected from different web sites, journals, articles and magazines on ICT and innovations in banking industries.

6. CONCLUSION

No development can be done without the existence of good financial services. Hence, in order to maintain the growth, organization needs to ensure that the right products and services are available at the right time for the customers. Banks have to satisfy their customers and for this they are moving in the direction of E-Banking. The bank management needs to educate the employees as well as customers for effective use of technologies. The study shows that Indian customers and banks are positive towards the use of new technologies in banking sector. The successful application of ICT in banking sector is how effectively the banks manage the ICT infrastructure and use it to achieve business objective.

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