TECHNOLOGICAL CHANGES IN INDIAN BANKING, OPPORTUNITIES AND CHALLENGES

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ABSTRACT

This paper studies about financial innovation in banking in India. It also highlights the benefits and challenges of innovative banking trends. Banks boost technology investment spending strongly to address revenue, cost and competitiveness concerns. The purpose of present study is to analyze such effects of innovation in banking on growth and development of India. India's banking system has seen some major financial innovations in the past decade as well as steps to promote financial inclusion, schemes that aim to take banking services to yet-to-be-banked areas. The various innovations in banking and financial sector are ECS, RTGS, EFT, NEFT, ATM, Retail Banking, Debit & Credit Cards, free advisory services, implementation of standing instructions of customers, payments of utility bills, fund transfers, internet banking, telephone banking, mobile banking, selling insurance products, issue of free cheque books, traveller's cheques and many more value added services.

Keywords: *Core Banking Solution, Corporate Internet Banking, ATMs, ATM Frauds, Electronic Fund Transfer.*

INTRODUCTION

In this paper an attempt has been made to identify the general sentiments, challenges and opportunities for the Indian Banking Industry. It then goes on to identify some important forces for change and some important forces resisting change. Over the last three decades the role of banking in the process of financial intermediation has been undergoing a profound transformation, owing to changes in the global financial system. India's banking system has seen some major financial innovations in the past decade as well as steps to promote financial inclusion, schemes that aim to take banking services to yet-to-be-banked areas. The various innovations in banking and financial sector are ECS, RTGS, EFT, NEFT, ATM, Retail Banking, Debit & Credit Cards, free advisory services, implementation of standing instructions of customers, payments of utility bills, fund transfers, internet banking, telephone banking, mobile banking, selling insurance products, issue of free cheque books, traveller's cheques and many more value added services. Attention is paid finally to growth path of banking sector with technological advancement. It is depicted that banking is going to be intensely competitive and complex. The best idea would be for the domestic banks to enhance mutual co-operation in order to create a healthier market order and raise the overall competitiveness of the industry as a whole. Incorporation of advanced technology and utilization of modern management techniques are other crucial aspects at which domestic banks should pay keen interest.

OBJECTIVES OF THE STUDY

1. To study the various financial innovation in banking sector.
2. To study the changing banking scenario.
3. To study the challenges of banks in changing banking scenario.

FINANCIAL INNOVATIONS IN BANKING SECTORS

Current banking sector has come up with a lot of initiatives that oriented to providing a better customer services with the help of new technologies. Banking through internet has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labour intensive methods with automated processes thus leading to higher productivity and profitability. Financial innovation associated with technological change totally changed the banking philosophy and that is further tuned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of product, process and market. Today we have electronic

payment system along with currency notes. India's financial sector is moving towards a scenario, where it can have new instruments along with liquidity and safety.

FORCES FOR CHANGE IN INDIAN BANKING

Underlying forces for change

- Developments in communication systems, coupled with blurring of differences between banks and non - banks and globalization have aggravated the competitive environment.

- Technology became a key differentiator for the new private sector banks. The technological superiority helped these private sector banks to have upper edge over public sector banks. The traditional source of income (Net Interest margin = Interest Earned – Interest Expended) was compressed due to the pressure of competition. As a result commercial banks had to face the challenge of finding out new sources of income and curtailing overhead expenses.

- The operating conditions are different for private sector and public sector banks in India (wage bill, legacy of non-performing assets and extensive network of Public sector banks) which results in imperfect competition in the market. With increasing competition among banks, customers are also becoming more discerning and demanding. To meet customer expectations, banks will have to offer a broad range of deposit, investment and credit products through diverse distribution channels including upgraded branches, ATMs, telephone and Internet. The mantra to attract and retain customers lies in efficient customer service including customized and value added products to meet various needs of individual customers as also to meet the need of diverse types of customers.

BANKING INNOVATIONS

Important events in the evolution of new age payment systems in India

- Arrival of card- based payments- debit card, credit card- late 1980‟s and early 1990‟s.
- Introduction of Electronic Clearing Service (ECS) in late 1990‟s
- Introduction of Electronic Funds Transfer/ Special EFT (EFT/SEFT) in the early 2000‟s
- Real Time Gross Settlement (RTGS) was introduced in March 2004
- Introduction of NEFT (National Electronic Funds Transfer)as a replacement for EFT/SEFT in 2005/06
- Plan for implementation of cheque truncation system as a pilot program in New Delhi in 2007.
- Migration from cash and cheque based payment system, it has become a necessity to electronic fund transfer system on account of the following reasons:
    1. Large volumes of transaction,
    2. High cost of physical handling and storage of paper instruments.
    3. Delay in realization is a common feature.
    4. Payments take time because the physical movement of instruments in large volumes from branches to and from clearing house, and sorting them according to each bank branch at the center creates problems.

EFT (Electronic Fund Transfer)

Electronic Funds Transfer (EFT) is a system whereby anyone who wants to make payment to another person/company etc. can approach his bank and make cash payment or give instructions/ authorization to transfer funds directly from his own account to the bank account of the receiver/beneficiary. Complete details such as the receiver's name, bank account number, account type (savings or current account), bank name, city, branch name etc. should be furnished to the bank at the time of requesting for such transfers so that the amount reaches the beneficiaries' account correctly and faster. RBI (Reserve Bank of India) is the service provider of Electronic Funds Transfer (EFT).

Real Time Gross Settlement (RTGS)

Real Time Gross Settlement system, introduced in India since March 2004, is a Interlink Research Analysis system through which electronics instructions can be given by banks to transfer funds from their account to the account of another bank. The (RTGS) Real Time Gross Settlement system is maintained and operated by the RBI and provides a means of efficient and faster funds transfer among banks facilitating their financial operations. As the name suggests, funds transfer between banks takes place on a 'Real Time' basis. Therefore, money can reach the beneficiary instantaneously and the beneficiary's bank has the responsibility to credit the beneficiary's account within two hours.

Core Banking Solution

CBS is a centralized platform, which creates environment where the entire bank's operations can be controlled, and run from a centralized hub. This creates a centralized customer database, which makes anytime, anywhere, anyway banking possible.

ATMs

Automatic Teller Machine is the most popular devise in India, which enables the customers to withdraw their money 24 hours a day 7 days a week. It is a device that allows customer who has an Automatic Teller Machine (ATM) card to perform routine banking transactions without interacting with a human teller. In addition to cash withdrawal, Automatic Teller Machines (ATMs) can be used for payment of utility bills, funds transfer between accounts, deposit of cheques and cash into accounts, balance enquiry etc.

Corporate Internet Banking

The Internet has initiated an electronic revolution in the global banking sector. Its dynamic and flexible nature as well as its ubiquitous reach has helped in leveraging a variety of banking activities. The Internet has emerged as one of the major distribution channels of banking products and services for banks in the U.S and in European countries. Consumers are embracing the many benefits of Internet banking like improved customer access which facilitates the offering of more services, attract new customers and reduce customer attrition.

CHALLENGES AHEAD

Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Early adopters of technology acquire significant competitive advances. Managing technology is therefore, a key challenge for the Indian banking sector. The nationalize 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 at managerial and organizational part. 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.

Retention of customers is going to be a major challenge. Banks need to emphasis on retaining customers and increasing market share. Information technology poses both opportunities and challenges. Even with ATM machines and Internet Banking, many consumers still prefer the personal touch of their neighborhood branch bank. Technology has made it possible to deliver services throughout the branch bank network, providing instant updates to checking accounts and rapid movement of money for stock transfers. However, this dependency on the network has brought IT department's additional responsibilities and challenges in managing, maintaining and optimizing the performance of retail banking networks. Illustratively, ensuring that all bank products and services are available, at all times, and across the entire organization is essential for today's retails banks to generate revenues and remain competitive. Besides, there are network

management challenges, whereby keeping these complex, distributed networks and applications operating properly in support of business objectives becomes essential. Specific challenges include ensuring that account transaction applications run efficiently between the branch offices and data centers. Banks in India will now have to work towards a vision to have an enhanced retail delivery system. Such a system would include transformed branches, enhanced telephone services, and leading-edge internet banking functions that provide a consistently positive multi-channel experience for the customer.

RISK FACTORS

Computerization of banks had started since 1994 in India. Reserve Bank of India has evolved working pattern for Local area Network and wide area Network by instituting different microwave stations so that money transactions could be carried out quickly and safely. The main banking tasks which computers perform are maintaining debit-credit records of accounts, operating automated teller machines, and carry out electronic fund transfer, print out statements of accounts create periodic balance sheets etc. Internet facilities of computer have revolutionized international banking for fund transfer and for exchanging data of interest relating to banking and to carry out other banking functions and provides certain security to the customers by assigning different pin numbers and passwords. Computer depredations have by some been classified as:

Computer Frauds; And Computer Crimes

Computer frauds are those involve embezzlement or defalcations achieved by tampering with computer data record or programme, etc. whereas computer crimes are those committed with a computer that is where a computer acts as a medium. The difference is however academic only.

The three most common are:

ATM Frauds

Automated teller Machines or ATMs are electronic machines linked to the accounts and records of a banking institution. It enables customers to carry out banking transactions without visiting bank premises. ATMs are virtual banks which allow the user to withdraw cash, pay bills, balance inquiries, cash deposits etc. The machine is operated with the help of an access device, which is a card, code (Personal Identification Number), or through other means of access to a customer's account, or any combination thereof.

Fraud Related to ATMs

Frauds may be committed by both outsiders and insiders. It is understandable that as the number of transactions rise, the number of fraud occurrences will rise as well. Frauds can occur due to the negligence on part of the cardholder or on the part of bank. If the cardholder does not follow the precautionary measures, he is exposed to risk.

A cheat may go through discarded receipts or carbons to illegally find out the card number.

A dishonest clerk makes an extra imprint from credit card or charge card for his or her personal use.

In addition, E – mail and Internet – related fraud schemes are being perpetrated with increasing frequency, creativity, and intensity. With the help of latest technology, fraudsters dupe innocent customers through ATM and Internet. A few of the methods adopted by fraudsters are:

- **Phishing**

It is in the center stage of Internet Scams. It is the practice of sending emails at random, purporting to come from a genuine company operating on the Internet. In an attempt to trick the customers „fraudsters" request disclosing information at a bogus website operated by them. Any information entered on the bogus website is captured by the criminals for their own fraudulent purposes

- **Skimming**

Fraudsters make counterfeit ATM cards using a skimmer, which is a card – swipe device that reads the information on a consumer's ATM card. Scammers insert onto an ATM, ready to swipe information from unsuspecting customers. They take a blank card and encode all the information from an ATM card when they swipe. The skimmer catches the PIN through a small camera mounted on the ATM.

- **Spoofing**

The attacker creates a misleading context to trick you into making an inappropriate security – relevant decision. For example, bogus ATM machines have been set up. Once they have the PIN number they have enough information to steal from the account.

Credit Card Frauds

Credit card fraud is widespread as a means of stealing from banks, merchants and clients. A credit card is made of three plastic sheet of polyvinyl chloride. The central sheet of the card is known as the core stock. These cards are of a particular size and many data are embossed over it. But credit cards fraud manifest in a number of ways. They are:

- Genuine cards are manipulated
- Genuine cards are altered
- Counterfeit cards are created
- Fraudulent telemarketing is done with credit cards.
- Genuine cards are obtained on fraudulent applications in the names/addresses of other persons and used.

It is feared that with the expansion of E-Commerce, M-Commerce and Internet facilities being available on massive scale the fraudulent fund freaking via credit cards will increase tremendously

CONCLUSION

The banking sector in India has undergone significant transformation in the past few years. A conductive macro-economic environment, the landmark foreclosure law, falling interest rates, ample liquidity in the system, the fast spreading technological revolution, and huge potential in the retail segment augur well for Indian banks. However, the numerous challenges faced by banks such as increasing competition, pressure on spreads, and systemic changes to align with international standards have necessitated a re-evaluation of strategies and processes in order to remain competitive in this dynamic environment. As per the census records, only 30 per cent of the rural households are availing banking services. One of the reasons may be non-availability of bank branches in the neighborhood. The existing rural branches of many of the big banks are being closed as they have become unviable. Banks need to think 'out-of the box' where box is the representation of all the tested, tried things that always worked in the past. They would have to think outside the boundaries of current practices, products, services, organizations, and industries as they fall behind the treadmill of faster and more rapid pace of change. The new business environment thus puts a premium on creativity and innovation more than ever before. This calls for innovative solutions. Banks may have to go for mobile banking services for a cluster of villages. Alternatively, technological institutions have to come out with low-cost, self-service solutions/ ATMs. The government and the RBI should actively support such research efforts.

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