



Role of Technology Development in Commercial Banks in India

KEYWORDS

Financial Inclusion ECS, RTGS, EFT, NEFT, ATM, Debit & Credit Cards.

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ABSTRACT 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 toyed-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, traveler's cheques and many more value added services. The major impetus for financial innovation has been globalization of financial systems, deregulation, and great advances in technologies. The purpose of present study is to analyze such effects of innovation in banking on growth and development of India.

Introduction

Over the years, the Reserve Bank has laid special emphasis on technology infusion in the day to day operations of banks. Technology, apart from increasing the efficiency of banking services, is expected to boost the ongoing process of financial inclusion emphasized by the Reserve Bank. In recent years, increase in the number of off-site ATMs in various locations as well as use of mobile phones for delivering banking technology has further facilitated banking outreach in remote areas. The IT Vision Document, 2011-17 of the Reserve Bank sets out the roadmap for implementation of key IT applications in banking with special emphasis on seamless delivery of banking services through effective implementation of Business Continuity Management (BCM), Information Security Policy, and Business Process Re-engineering (BPR).

TECHNOLOGICAL DEVELOPMENT IN BANKS

IT improves the front end operations with back end operations and helps in bringing down the transaction costs for the customers. The important events in the field of IT in the banking sector in India are:

- Arrival of card-based payments- Debit/ Credit card in late 1980s and 1990s.
- Introduction of Electronic Clearing Services (ECS) in late 1990s.
- Introduction of Electronic Fund Transfer (EFT) in early 2000s.
- Introduction of RTGS in March 2004.
- Introduction of National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer in 2005/2006.
- CTS in 2007.

OBJECTIVES OF THE STUDY:

- To find out the progress of computerization in all commercial banks of India.
- To analyses the banking innovations after computerization of commercial banks of India.
- To analyses the ATM progress in the banking sector

RESEARCH METHODOLOGY:

The present study is based on the secondary data collected from different journals, magazines, sites and published data from various issues of RBI and different Public sector banks. Various studies on this subject have also been referred in this study. The heads and other functionaries have also been contacted personally to collect the required data for this study.

Implementation of Business Continuity Plan (BCP) and Automated Data Flow is in progress

At the present juncture, banking in India is largely dependent on technology. It is, therefore, necessary that banks have appropriate and adequate arrangements for disaster recovery and business continuity to face any event of natural disasters or operational failure. During recent years, an integrated Business Continuity Management (BCM) arrangement encompassing continuity planning for all business functions including data centers has evolved, with support provided by the Reserve Bank.

Considering the importance of accuracy and timeliness in regulatory reporting, a project on automating data flow from the core banking solution (CBS) or other IT systems of commercial banks to the Reserve Bank was announced in the Monetary Policy Statement of 2010-11. In the first phase, banks were advised to ensure seamless flow of data from their transaction server to their management information system (MIS) server while the second phase would involve the Reserve Bank to introduce a system for generating all returns from banks' MIS. Implementation of the first phase is in progress, and is monitored and reviewed at quarterly intervals. The project is expected to be completed by March 2013

ANALYSIS AND FINDINGS

(i). National Electronic fund Transfer (NEFT)

It is a nation-wide payment system facilitating one-to-one funds transfer. Under this Scheme, individuals, firms 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 the Scheme. For being part of the NEFT funds transfer network, a bank branch has to be NEFT-enabled.

(ii). Real Time Gross Settlement (RTGS)

RTGS system is a funds transfer mechanism where transfer of money takes place from one bank to another on a "real time" and on "gross" basis. This is the fastest possible money transfer system through the banking channel. Settlement in "real time" means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. "Gross settlement" means the transaction is settled on one to one basis without bunching with any other transaction. Considering that money transfer takes place in the books of the Reserve Bank of India, the payment is taken as final and irrevocable. In view of the increasing volumes, as also other business requirements, the Reserve Bank is in the process of replacing the existing RTGS with NG-RTGS,

which provides more functions and facilities. The NG-RTGS is expected to adopt the emerging messaging standards.

(iii) Growth of ATMs in India:

Even though ATM originally developed for cash dispenses, now it includes many other bank related functions such as cash withdrawal, paying routing bills fees and taxes, printing bank statements, funds transfers, purchasing online products, train tickets reservations, products from shopping mall, donations and charities, adding pre-paid cell phone/mobile phone credit, advertising channels for own or third party products and services and payment of insurance premiums.

Sustained increase in total number of ATMs indicating move towards door-step banking

During 2011-12, an additional 21,000 ATMs were deployed by the banks. Public sector banks accounted for more than 60 per cent of the total number of ATMs as at end-March 2012.

Table 1: ATMs of Scheduled Commercial Banks

| (As at end-March 2012) | | | | |
|------------------------|--------------------------|--------------|---------------|----------------------|
| No | Bank group | On-site ATMs | Off-site ATMs | Total number of ATMs |
| 1 | 2 | 3 | 4 | 5 |
| 1. | Public sector banks | 34,012 | 24,181 | 58,193 |
| 1.1 | Nationalised banks* | 18,277 | 12,773 | 31,050 |
| 1.2 | SBI group | 15,735 | 11,408 | 27,143 |
| 2. | Private sector banks | 13,249 | 22,830 | 36,079 |
| 2.1 | Old private sector banks | 3,342 | 2,429 | 5,771 |
| 2.2 | New private sector banks | 9,907 | 20,401 | 30,308 |
| 3. | Foreign banks | 284 | 1,130 | 1,414 |
| | All SCBs (1+2+3) | 47,545 | 48,141 | 95,686 |

Note: *: Excluding IDBI Bank Ltd.

(IV) Public Sector banks were major issuers of debit cards Table 2 Credit and Debit Cards Issued by Scheduled Commercial Banks

| (As at end-March) (in million) | | | | | |
|-----------------------------------|--------------------------|------------------------------------|-------|-----------------------------------|------|
| No | Bank group | Outstanding Number of Credit Cards | | Outstanding Number of Debit Cards | |
| | | 2011 | 2012 | 2011 | 2012 |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1. | Public sector banks | 3.08 | 3.06 | 170 | 215 |
| 1.1 | Nationalised banks | 0.78 | 0.84 | 80 | 103 |
| 1.2 | SBI group | 2.30 | 2.22 | 90 | 112 |
| 2. | Private sector banks | 9.32 | 9.67 | 53 | 60 |
| 2.1 | Old private sector banks | 0.04 | 0.04 | 12 | 14 |
| 2.2 | New private sector banks | 9.28 | 9.63 | 41 | 46 |
| 3. | Foreign banks | 5.64 | 4.92 | 3.9 | 3.8 |
| | All SCBs (1+2+3) | 18.04 | 17.65 | 228 | 278 |

Note: Components may not add up to total due to rounding off numbers to million.

Issuance of credit cards declined, while debit cards showed a high growth trend. Foreign banks, however, showed a small decline in the issuance of debit cards. More than three-fourths of the total debit cards outstanding as at the end of March 2012 as shown in table 2.

(v) Major electronic payment systems

The electronic payment systems such as Electronic Clearing Service (ECS) credit and debit, National Electronic Fund Transfer (NEFT) for retail transactions and Real Time Gross Settlement (RTGS) for large value, improved the speed of financial transactions, across the Country. Both retail and large value systems of electronic payment transactions registered a Growth out of which NEFT registered a steep growth in 2010-11 over the previous year

Table 3: Volume and Value of Electronic Transactions by SCBs

| (Volume in million, Value in ` billion) | | | | | | | | |
|-----------------------------------------|---------|---------|----------------------|---------|----------|----------|----------------------|---------|
| Year | Volume | | Percentage Variation | | Value | | Percentage Variation | |
| | 2010-11 | 2011-12 | 2010-11 | 2011-12 | 2010-11 | 2011-12 | 2010-11 | 2011-12 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| ECS Credit | 117 | 122 | 19.5 | 3.6 | 1,817 | 1,838 | 54.5 | 1.2 |
| ECS Debit | 157 | 165 | 5.0 | 5.1 | 736 | 834 | 5.9 | 13.3 |
| Credit cards | 265 | 320 | 13.2 | 20.7 | 755 | 966 | 22.2 | 27.9 |
| Debit cards | 237 | 328 | 39.3 | 38.2 | 387 | 534 | 46.6 | 38.0 |
| NEFT | 132 | 226 | 99.5 | 70.9 | 9,321 | 17,903 | 127.6 | 92.1 |
| RTGS | 49 | 55.0 | 48.5 | 11.6 | 4,84,872 | 5,39,307 | 22.9 | 11.2 |

Note: Percentage variation could be slightly different as absolute numbers have been rounded off to million/ billion.

In India, cash continues to be the pre-dominant mode of payment. The policy initiatives and the regulatory stance of the Reserve Bank has continued to focus on increasing the acceptance and penetration of safe, secure and efficient non-cash payment modes comprising cheques, credit/debit cards, and transactions through ECS/RTGS/NEFT, over the years.

(VI) Pre-paid payment instruments (PPIs)

Pre-paid payment instruments (PPIs) have emerged as a convenient replacement/substitution for cash transaction, besides providing a proper audit trail. PPIs are payment instruments that facilitate purchase of goods and services against the value stored on such instruments. As at end- June 2012, 40 banks (including the Department of Posts, Gol) and 21 non-bank entities were granted approval/ authorisation under the Payment and Settlement System (PSS) Act, 2007 to issue PPIs in India. Three types of PPIs are popularly issued viz., paper voucher, cards and m-wallets. However, efforts are underway to migrate these paper based PPIs to electronic modes as shown in table 4.

Table 4. Spread of Pre-payment Instruments

| (end-March 2012) (Volume in million and Value in ` billion) | | | | |
|----------------------------------------------------------------|-----------------------|---------------------------------|----------------------|---------------------------------|
| Pre-paid Instrument Type | Number of PPIs issued | Percentage to total PPIs issued | Value of PPIs issued | Percentage to total PPIs issued |
| Paper voucher | 42.00 | 97.0 | 1.76 | 60.8 |
| Card based | 0.57 | 1.3 | 1.04 | 35.8 |
| Mobile account/ wallet | 0.55 | 1.3 | 0.1 | 3.5 |
| Total | 43.00 | 100.0 | 2.9 | 100.0 |

Note: Components may not add up to total due to rounding off numbers to million/ billion.

Going forward, the relaxations in the domestic money transfer guidelines introduced in October 2011 are expected to provide further impetus towards financial inclusion through electronic PPIs, including the use of m-wallets, by enabling all authorised entities (both banks as well as nonbanks) to increase domestic remittances through formal payment channels.

Conclusion:

In this age of information technology and competitive world, banking sectors should be modernized. The banking sectors of our country should use electronic banking system so that they can provide more services to their customers and earn sustainable amount of money to support the national economy. The growth of electronic banking users increasing is a significant manner. However, last 10 years it has got tremendous importance over the bank customer and hopefully

it will increase day by day after nurture the product by the professional bankers. By designing and offering simple, safe and secure technology, banks reach at the doorsteps of the customers with an objective of delight customer satisfaction.

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