

Banking Sector in India : It Innovations and its Impact

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Abstract

The fast pace of changes in the Indian economy since liberalization; have radically and perceptibly transformed the operational environment of the banking sector. After decades of governmental safeguard for commercial banks in India, they are now exposed to an open and competitive environment. Public sector banks have now to cope with competition from both foreign and private sector banks which are equipped with superior technology, better market orientation and cost effective measures. Developments in the field of information Technology (IT) have strongly come to the rescue by infusing growth and inclusiveness into the banking sector. IT has enhanced the competitive proficiency of the Banking sector by strengthening back end administrative processes. While improvement in the front-end operations has helped in reducing the cost of operations. This paper examines the current status and varied aspects of computerisation in Public Sector and scheduled Commercial Banks for the period ended March 2005-2011 in India.

1. INTRODUCTION

Banks are the most important participant of the financial sector and a sound banking system is the backbone of a healthy economy. At the time of nationalization, the primary thrust was given to mass banking. Continuous reforms in banking policies in the post liberalization regime have facilitated the creation of a competitive environment. Deregulation of the banking industry through abolition of administered rates of deposits and loans has given the banks the freedom to fix prices for their products. Introduction of information technology has drastically changed and widened the range of products, increasing the expectations

and demands of the customers in the modern era. At present, the emphasis has shifted to 'value-added' and 'virtual' banking.

Computerisation in the banking industry has developed in response to the ever increasing needs and expectations of the customers. Computerisation in addition to improving customer services has helped in developing new business of and reducing the cost of banking operations. In this brief paper, an attempt has been made to analyse and study the level of computerisation in scheduled Commercial Banks in India.

2. OBJECTIVES OF THE STUDY AND DATA

The major objectives of this paper are :

- To make a comparative study of progress ;
- The overall trends in computerisation levels in scheduled Commercial banks.

The study is based on secondary data. The data has been sourced from various RBI publications, IBA bulletins, financial newspapers, and other government publications.

3. IMPACT OF COMPUTERISATION

The banking sector is largely a service-oriented industry and customers thus form a very significant part of the whole process .Computerisation had been an impending benefit added to banking to attract, aid and sustain customers in the long – run. The service of computerisation along with the effectiveness of its implementation can go a long way to create utility for the customers. Some of the major benefits that computerisation has added to the bouquet of banking services are discussed below.

- Customers need not visit the branch for several jobs such as enquiry about balances 'withdrawal of cash, deposit of cash/cheques

'forgetting draft/cheque book etc. All these facilities are provided through ATMs and Telebanking either through Telephone or personal Computers.

- Any Time Any Branch Banking.
- Customers can pay bills online and have instant record & downloading of previous account transactions at any time/place.
- Facilitation of Electronic Funds Transfer (EFT).
- Request of services through E-mails, use of ATM facilities through Debit cards etc.
- Transition from paper based to Digital Processes.

4. COMPUTERISATION IN PUBLIC SECTOR BANKS

A technological development closely related to computerisation in bank branches is the adoption of core banking solutions (CBS).CBS enables banks to offer a multitude of customer centric services on a continuous basis from a single location, supporting retail as well as corporate banking activities thus making "one stop" shop for financial services a reality. The following Table (I) depict the status of overall computerisation as for the period 2005-2010 for public sector banks.

Table 1 : Computerisation in Public Sector Banks

Category	(As at end March) (Percent of Total Bank Branches)						
	2005	2006	2007	2008	2009	2010	CAGR(%)
Fully Computerised branches (i + ii)	71	77.4	85.6	93.6	95	97.7	5.48
(i) Branches under Core Banking Solution	11	28.9	44.4	67	79.4	90	41.95
(ii) Branches already Fully Computerised [#]	60	48.5	41.2	26.6	15.6	7.7	-28.98
Partially Computerised Branches	21.8	18.2	13.4	6.3	5	2.2	-31.77

Other than branches under Core Banking Solution

Source : Report on Trend and Progress of Banking in India, Various Issues.

At the end of March 2010, 97.8 percent of the public sector bank branches were fully computerised, with Compound Annual Growth Rate (CAGR) of 5.48 percent (table 1). Core Banking Solutions also grew at CAGR of 41.95 percent. An important development in 2009-10 was a significant increase in the percentage of branches of public sector banks implementing CBS. The percentage of such

branches increased from 79.4 per cent at end-March 2009 to 90 per cent at end-March 2010 (Table 1).

Electronic Funds Transfer in Public Sector Banks : Since the introduction of RTGS and NEFT systems in 2004 & 2005 in India, the volume and value of electronic transactions transacted increased significantly in the banking system.

Table 2 : Electronic Funds Transfer Systems

Type	Volume (000s)								Value (Rupees in crores)							
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	CAGR	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	CAGR (%)
ECS-Credit	40051	44216	69019	78365	88394	98550	117300	16.59	20180	32324	83273	782222	97487	117833	181686	36.88
ECS-Debit	15300	35958	75202	127120	160055	150214	156700	39.42	2921	12986	25441	48937	66976	69819	73646	58.57
Total	55351	80174	144221	205485	248449	248764	274000	25.67	23101	45310	108714	831159	164463	187652	255332	40.95

Source : Annual Reports, RBI

The Reserve Bank has been, over a period of time, proactively encouraging the introduction of electronic payment products that are superior to paper-based systems in terms of traceability, efficiency, speed and safety. These include large value payment options like the Real Time Gross Settlement (RTGS) as also retail payment options that facilitate multiple credit/debit transactions (Electronic Clearing Service (ECS) - credit/debit) or person to person electronic payments (National Electronic Funds Transfer - NEFT). The EFT automatically transfers money from one account to another. In this system, the sender and the receiver of funds may be located in different cities and may even bank with different banks. This system makes possible electronic payments for credit cards, insurance premium, and mortgage instalment. To encourage the use electronic payments, the Reserve Bank has time to time to promote the electronic transactions has waived the processing charges for all electronic payment systems operated by it for different year. An increasing trend

has been observed in the use of ECS-Credit and ECS-Debit (Value) payments in the recent years. The value of electronic transactions (in Rs.crore) increased to 255332 during 2010-11 as compared with 187652(in Rs.crore) in the previous year registering a CAGR of 40.95 percent. The use of ECS (credit) and ECS (debit) increased sharply during 2007-08, while the ECS (credit) volumes increased by 13.54 percent in 2007-08, value increased by more than eight times. The substantial increase was due to the use of ECS for refund of Initial public offering (IPOs).

5. BRANCHES AND ATMS OF BANKS

To provide their customers greater flexibility and convenience and to save on servicing costs, banks have been investing to computerise their branches and introduce new delivery channels such as ATMs, phone banking, internet banking and mobile banking. ATMs are a major technological development which has revolutionized the delivery channel in the banking sector. ATMs, particularly off-site ATMs, act as substitutes for bank branches

in offering a means of anytime cash withdrawal to customers. The no. of ATMs has been on a steady rise in recent years. ATM offer multiple benefits to banks in the form of improved customer services, larger penetration ,alternative to extended hour service, any time money, less crowding at the bank.

Automated Teller Machine is a computerised machine that provides the customers of banks the facility of accessing their account for dispensing cash and to carry out other financial & non-financial transactions without the need to actually visit their bank branch.

ATM enables the customers to withdraw the money or perform transactions 24 hours a day 7 days a week. First ATM was established in the year 1987 by Hong kong and Shanghai Banking Corporation

(HSBC). In India, there is a continuous rise in the usage of ATMs by the customers. As per RBI directions Savings bank account holders can transact a maximum of five transactions free at other bank ATMs in a month, which is inclusive of all types of transactions, financial and non-financial, beyond which the customer can be charged by his/her bank .Growth in ATMs has been on steady rise in the recent years reason being its popularity and increased usage among the customers .As at end March,2011 the percentage of off-site ATMs to total ATMs stood at 45.3 percent for all SCBs. Table shows the greater concentration of ATMs in urban and metro areas as compared to ATMs in rural areas, PSBs has maximum ATMs in rural areas as compared to pvt and foreign banks.

**Table 3 : Branches and ATMs of Scheduled Commercial Banks (SCBs)
As at end March, 2011**

Bank	Number of Branches					Number of ATMs			Offsite ATMS as % of total ATMs
	Rural	Semi Urban	Urban	Metro	Total	On-site	Off-site	Total	
Public Sector Banks	5872	13278	16186	14151	49487	29795	19692	49487	39.8
Nationalised Banks	2718	5680	8132	8306	24836	15691	9145	24836	36.8
State Bank Group	3154	7598	8054	5845	24651	14104	10547	24651	42.8
Private Sector Banks	1262	4784	7576	10029	23651	10648	13003	23651	55.0
Old Private Sector Banks	332	1339	1401	1054	4126	2641	1485	4126	36.0
New Private Sector Banks	930	3445	6175	8975	19525	8007	11518	19525	59.0
Foreign Banks	21	20	300	1026	1367	286	1081	1367	79.1
All SCBs	7155	18082	24062	25206	74505	40729	33776	74505	45.3

Source : Report on Trend and Progress of Banking in India, 2010-11.

* ATMs which are located within the premises of the Bank's Branch which has installed it is referred as On-Site ATM whereas ATMs which are located at public places are Off-Site ATMs. ATMs located at Food Worlds, Railway Stations, Petrol Bunks, Airports are examples of Off-Site ATMs.

6. PLASTIC CARDS

Plastic cards (Credit and Debit) have gained greater acceptance and momentum as a medium of financial transactions. Credit cards has become very popular with the introduction of foreign banks in India. There has been a steady rise in outstanding number of Debit cards in India. Introduction of debit cards has helped the Banks to significantly cut the operating costs. Following table depicts the status of Debit cards and credit cards over the period of five years in SCBs in India.

(a) Debit Cards : Debit Card is a plastic card which provides an alternative payment method to cash when making purchases. Almost all banks in India are issuing debit cards, the largest share being accounted for ICICI bank and State Bank of India.

Table 4 : Debit Cards issued by Scheduled Commercial Banks(SCBs) (In millions)

Bank	Outstanding No. of Debit Cards				
	2006-07	2007-08	2008-09	2009-10	2010-11
Public Sector Banks	44.09	64.33	91.7	129.69	170.34
Nationalised Banks	19.24	28.29	40.71	58.82	80.27
State Bank Group	24.85	36.04	50.99	70.87	90.07
Private Sector Banks	27.19	34.1	41.34	47.85	53.58
Old Private Sector Banks	3.94	5.34	7.09	9.81	12.44
New Private Sector Banks	23.25	28.76	34.25	38.04	41.14
Foreign Banks	3.7	4.02	4.39	4.43	3.92
All SCBs	74.98	102.44	137.43	181.97	227.84

Source : Report on Trend and Progress of Banking in India.

Above table shows that No. of outstanding cards has been on steady increase over the period of study As on march 2010-11 o/s no. of debit cards of all SCBs was 227.84 millions as compared to 74.98 millions in 2006-07. During 2010-11, the number of debit cards grew at the rate of 25 percent over the

previous year. Nearly three fourths of the total debit cards were issued by PSBs as at end March 2011.

(b) Credit Cards : The term "credit card" generally refers to a plastic card issued to a cardholder, with a credit limit, that can be used to purchase goods and services on credit or obtain cash advances. It is issued by banks holding the logo of one of the bank card association private and foreign banks. Unlike debit cards, credit cards also provide overdraft facility and customer can purchase over and above the amount available in his account and thus regarded as authentic payment tool. Interest charges are levied on the unpaid balance after the payment is due. Cardholders may pay the entire amount due and save on the interest that would otherwise be charged. Equated Monthly installments (EMI) scheme is also offered by some banks to the customers who make huge purchases so that they can feel convenient while paying back the outstanding amount The credit card business in India has been growing at a significant pace and that too at the rate of almost 45% every year as depicted in given Table. The value of transactions conducted through credit cards was 176.6 billion in 2003-04 and increases to 413.6 in 2006-07. Between FY06 to FY11 (provisional), the number of transactions for debit cards grew 270% to 17.02 crore from 4.6 crore. During the same period, the number of credit card transactions increased by 50% to 23.4 crore from 15.6 crore. According to RBI, Over the past five years, the value of transactions for debit cards rose 355% to Rs26,418.10 crore from Rs5,891.1 crore. The total transaction value for credit cards, is significantly higher, but the growth is slower - it increased by 85% to Rs62, 881.80 crore in FY11 from Rs33,886.5 crore.

7. CHEQUE TRUNCATION SYSTEM

Cheques are still the prominent mode of payments in the country so as to improve upon the efficiency of the cheque clearing cycle; Reserve Bank of India has implemented the Cheques Truncation System (CTS)

as an alternative to traditional system of cheque clearing system. CTS are a more secure system vis-a-vis the exchange of physical documents.

Truncation is the process of stopping the flow of the physical cheque issued by a drawer at some point with the presenting bank en-route to the drawee bank branch. In its place an electronic image of the cheque is transmitted to the drawee branch by the clearing house, along with relevant information like data on the MICR band, date of presentation, presenting bank, etc. This effectively eliminates the associated cost of movement of the physical cheques, reduces the time required for their collection and brings elegance to the entire activity of cheque processing. Cheque Truncation speeds up the process of collection of cheques resulting in better service to customers, reduces the scope for clearing-related frauds or loss of instruments in transit, lowers the cost of collection of cheques, and

removes reconciliation-related and logistics-related problems, thus benefitting the system as a whole.

In addition to operational efficiency, CTS offers several benefits to banks and customers, including human resource rationalisation, cost effectiveness, business process re-engineering, better service, adoption of latest technology, etc. CTS, thus, has emerged as an important efficiency enhancement initiative undertaken by Reserve Bank in the Payments Systems area.

The benefits from CTS could be summarized as follows :

- Shorter clearing cycle
- Superior verification and reconciliation process
- No geographical restrictions as to jurisdiction
- Operational efficiency for banks and customers alike
- Reduction in operational risk and risks associated with paper clearing

Table 5 : Credit Cards issued by Scheduled Commercial Banks (SCBs) (In millions)

Bank	Outstanding No. of Debit Cards				
	2006-07	2007-08	2008-09	2009-10	2010-11
Public Sector Banks	4.14	3.93	3.44	3.26	3.08
Nationalised Banks	0.75	0.72	0.72	0.73	0.78
State Bank Group	3.39	3.21	2.72	2.53	2.3
Private Sector Banks	10.68	13.29	12.18	9.5	9.32
Old Private Sector Banks	0.03	0.04	0.06	0.06	0.04
New Private Sector Banks	10.65	13.25	12.12	9.44	9.28
Foreign Banks	8.31	10.33	9.08	5.57	5.67
All SCBs	23.12	27.55	24.7	18.33	18.04

Source : Report on Trend and Progress of Banking in India, 2010-11.

As Per RBI directions, the local cheques are processed on T+1 working day basis and customers get the benefit of withdrawal of funds on a T+1 or 2 basis. 'T' denotes transaction day viz. date of presentation of cheque at the Clearing House. So, the outstation cheques under Speed Clearing will also be paid on T+1 or 2 basis.

8. CHALLENGES FACED IN THE PROCESS OF COMPUTERISATION

Although, the adoption of technology in banks continues at a rapid pace, the concentration is perceptibly more in the metros and urban areas. The benefit of Information Technology is yet to percolate sufficiently to the common man living in his rural hamlet. More and more programs and software in regional languages could be introduced to attract more and more people from the rural segments also.

Another challenge the banks have had to face concerns the inability of banks to retain the trained and talented personnel, especially those with a good knowledge of IT.

The main challenge, however, remains to motivate the customers to increasingly make use of IT while transacting with banks.

9. CONCLUSIONS

The Banking sector has immensely benefited from the implementation of superior technology during the recent past, almost in every nation of the world. The achievements in the banking today would not have made possible without IT revolution; Enhanced productivity,

innovative products, speedy transactions, seamless transfer of funds, real time information system, and efficient risk management are some of the advantages derived through technology. Information technology has also improved the efficiency and robustness of business processes across banking sector.

The Banking today has been re-defined and re-engineered with the use of Information Technology; it is evident that the future of banking will offer more sophisticated services to the customers with the continuous product and process innovations. Thus, there is a paradigm shift from the seller's market to buyer's market in the industry. At the industry level approach has changed from "conventional banking to convenience banking" and the service motto has been modified from "mass banking to class banking". The shift has also increased the accessibility of banks for the common man to satisfy variety of needs and requirements.

Banks in India are using Information Technology (IT) not only to improve their own internal processes but also to increase facilities and services to their customers. Efficient use of technology has facilitated accurate and timely management of the increased transaction volume of banks that comes with a larger customer base.

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