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Indian E-Banking Scenario

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Abstract

Now a days most of the banking happens while you are sipping coffee or taking an important call. ATMs are at your doorstep. Banking services are accessible 24x7. There are more plastic cards in your wallet than currency notes. A huge part of this change is due to advent of IT. Banks today operate in a highly globalized, liberalized, privatized and a competitive environment. In order to survive in this environment banks have to use IT. Indian banking industry has witnessed tremendous developments due to sweeping changes that are taking place in the information technology. Electronic banking has emerged from such an innovative development. The objective of the present paper is to study and analyze the progress made by Indian banking industry in adoption of technology. The study is secondary based and analytical in nature. The progress in e-banking in Indian banking industry is measured through various parameters such as Computerization of branches, Automated Teller Machines, Transactions through Retail Electronic Payment Methods etc. Statistical and mathematical tools such as simple growth rate, percentages and averages etc. are used. The paper also highlights the challenges faced by Indian banks in adoption of technology and recommendations are made to tackle these challenges. The paper concludes that in years to come e-banking will not only be acceptable mode of banking but preferred mode of banking.

Keywords: e-banking, Information Technology

1.0 Introduction:

Information Technology has become a necessary tool in today's organizations. Banks today operate in a highly globalized, liberalized, privatized and a competitive environment. In order to survive in this environment banks have to use IT. IT has introduced new business paradigm. It is increasingly playing a significant role in improving the services in the banking industry. Indian banking industry has witnessed a tremendous developments due to sweeping changes that are taking place in the information technology. Electronic banking has emerged from such an innovative development. Modern technology is seen as a panacea for most of the ills that the banking sector faces today. Even at present, India is a relative unbanked country as the credit-to-GDP ratio is one of the lowest in the developing economies. So banks are facing the dual challenge of increasing penetration and high growth trajectory. The banking industry can kill two birds with one stone that is with help of technology. Tremendous progress took place in the field of technology which has reduced the world to a global village and it has brought remarkable changes in the banking industry. Branch banking in the brick and mortar mode has been transformed into click and order channel mode.

1.1 E-Banking:

E-banking is the term that signifies and encompasses the entire sphere of technology initiatives that have taken place in the banking industry. E-banking is a generic term making use of electronic channels through telephone, mobile phones, internet etc. for delivery of banking services and products. The concept and scope of e-banking is still in the transitional stage. E-banking has broken the barriers of branch banking.

1.2 Evolution of e-banking:

E-banking came into being in UK and USA in 1920s. It became prominently popular during 1960s through electronic funds transfers and credit cards. The concept of web-based banking came into existence in Europe and USA in the beginning of 1980s. It has been estimated that around 40 percent of banking transaction would be done through Net.

1.3 E-Banking in India:

In India e-banking is of fairly recent origin. The traditional model for banking has been through branch banking. Only in the early 1990s there has been start of non-branch banking services. The good old manual systems on which Indian Banking depended upon for centuries seem to have no place today. The credit of launching internet banking in India goes to ICICI Bank. Citibank and HDFC Bank followed with internet banking services in 1999. Several initiatives have been taken by the

Government of India as well as the Reserve Bank to facilitate the development of e-banking in India. The Government of India enacted the IT Act, 2000 with effect from October 17, 2000 which provided legal recognition to electronic transactions and other means of electronic commerce. The Reserve Bank is monitoring and reviewing the legal and other requirements of e-banking on a continuous basis to ensure that e-banking would develop on sound lines and e-banking related challenges would not pose a threat to financial stability.

A high level Committee under chairmanship of Dr. K.C. Chakrabarty and members from IIT, IIM, IDRBT, Banks and the Reserve Bank prepared the "*IT Vision Document- 2011-17*", for the Reserve Bank and banks which provides an indicative road map for enhanced usage of IT in the banking sector.

To cope with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of them. The competition has been especially tough for the public sector banks, as the newly established private sector and foreign banks are leaders in the adoption of e-banking. Indian banks offer to their customers following e-banking products and services:

- Automated Teller Machines (ATMs)
- Internet Banking
- Mobile Banking
- Phone Banking
- Telebanking
- Electronic Clearing Services
- Electronic Clearing Cards
- Smart Cards
- Door Step Banking
- Electronic Fund Transfer

The three broad facilities that e-banking offers are:

- Convenience- Complete your banking at your convenience in the comfort of your home.
- No more Qs- There are no queues at an online bank.
- 24x7 service- Bank online services is provided 24 hours a day, 7 days a week and 52 weeks a year.

2.0 Objectives of the study:

1. To identify various e-banking services/products adopted by Indian banks.
2. To study and analyze the progress made by Indian banking industry in adoption of technology.
3. To study the challenges faced by Indian banks in adoption of technology and make recommendations to tackle these challenges.

3.0 Research Methodology & Database:

The study is based on secondary data and analytical in nature. Statistical and mathematical tools such as simple growth rate, percentages and averages are used. The sources of data are Report on Trends and Progress of Banking in India published by Reserve Bank of India, Mumbai. The parameters of the study are Computerization of branches, Automated Teller Machines and Transactions through Retail Electronic Payment Methods such as Electronic Clearing services (ECS) - debit and credit, National Electronic Fund Transfer and Electronic Clearing Cards that is debit card and credit card. To analyze progress made by Indian banking industry in adoption of technology, averages, percentages and simple growth rate is calculated. (In this study, simple growth rate is indicated by GR. $GR = \frac{Y^t - Y^0}{Y^0} \times 100$ where Y^t indicates value of given parameter in current year and Y^0 indicates value of given parameter in base year)

4.0 Analysis and Interpretation:

4.1 Computerisation in Public Sector Banks: - Computerisation as well as the adoption of core banking solutions was one of the major steps in improving the efficiency of banking services. It is important to note that presently almost 98 percent of the branches of public sector banks are fully computerised and within which almost 90 percent of branches are on core banking platform. Table 4.1 indicates computerisation in public sector banks over seven year's period from 2007-2013. On average during this period 95.45 percent of branches are fully computerised, 81.17 percent branches are under core banking solutions. Growth rate in case of fully computerised branches and branches under core banking solutions has increased.

Table 4.1: Computerisation in Public Sector Banks (Percent of total bank branches) (As at March 2013)

Year/ Category	Fully Computerised Branches	Growth Rate	Branches Under Core Baking Solutions	Growth Rate
2007	85.6	-	44.4	-
2008	93.7	9.46	67.0	50.9
2009	95.0	10.98	79.4	78.8
2010	97.8	14.25	90.0	102.7
2011	98.1	14.60	93.3	110.13
2012	98.9	15.54	95.6	115.31
2013	99.3	16.00	98.5	121.85
Average	95.45		81.17	

Source: Report on Trends and Progress of Banking in India, RBI

4.2 Automated Teller Machines (ATMs): - ATM is a modern device introduced by the banks to enable the customers to have access to money day in day out without visiting the bank branches in person. The system is known as "Any Time Money" or "Any Where Money" because it enables the customers to withdraw money from the bank from any of its ATMs round the clock. ATM has become the most popular and convenient delivery channel throughout entire country. Table 4.2 indicates the progress made by ATMs of Scheduled Commercial Banks for the period 2006-07 to 2012-13. In average terms Onsite ATMs are more as compared to Offsite ATMs though the number of both has increased in the period of 7 years. In percentage terms also Onsite ATMs are more than Offsite ATMs. The percentage of Onsite ATMs as well as Offsite ATMs has increased from 45.40 percent in 2006-07 to 51.10 percent in 2013. In 2013 number of total ATMs is 1,14,014 which is 177.40 percent of average total branches. Growth rate has remarkably increased in 2013 in case of both Onsite and Offsite ATMs taking the year 2006-07 as base year.

Table 4. 2: Automated Teller Machines (ATMs) of Scheduled Commercial Banks (As at end March 2013)

Year/ Category	On Site	Growth Rate (%)	Off site	Growth Rate (%)	Total	Growth Rate (%)	Off Site as percentage of total ATMs	On Site as percentage of total ATMs
2006-07	14,796	-	12,292	-	27,088	-	45.40	54.60
2007-08	18,486	24.90	16,303	32.6	34,789	28.40	46.90	53.10
2008-09	24,645	66.60	19,006	54.6	43,651	61.10	43.50	56.50
2009-10	32,679	120.90	27,474	123.5	60,153	122.10	45.70	54.30
2010-11	40,729	175.20	33,776	174.8	74,505	175.00	45.30	54.60
2011-12	47,545	221.33	48,141	291.64	95,686	253.24	50.31	49.68
2012-13	55,760	276.86	58,254	373.92	1,14,014	320.90	51.10	48.91
Average	33,520		30,749		64,269			

Source: Report on Trends and Progress of Banking in India, RBI

Table 4.3 indicates Bank Group-wise ATMs of Scheduled Commercial Banks. The highest number of ATMs both Onsite and Offsite is in case of Public sector banks and which is 61.09 percent of total ATMs in the country. In percent terms ATMs

in case of Nationalized Banks is 31.01 percent, in case of SBI group is 28.58 percent which is lessor than that of Private sector banks (37.80). New private sector banks has major share of ATMs (31.17) as compared to Old private sector banks (6.63). Foreign banks have 1,261 ATMs in 2013 which is just 1.11 percent of total ATMs.

Table 4.3: Bank Group-wise Automated Teller Machines of Scheduled Commercial Banks (As at end March 2013)

Bank Group/ Category	On Site ATMs	Percentage of total	Off Site ATMs	Percentage of total	Total number of ATMs	Percentage of total	On Site ATMs as percentage of total ATMs	Off Site ATMs as percentage of total ATMs
Public Sector Banks	40,241	72.17	29,411	50.49	69,652	61.09	57.77	42.22
Nationalised Banks	20,658	37.05	14,701	25.24	35,359	31.01	58.42	41.58
SBI Group	18,708	33.55	13,883	23.83	32,591	28.58	57.40	42.60
Private Sector Banks	15,236	27.32	27,865	47.83	43,101	37.80	35.35	64.65
Pld Private Sector Banks	4,054	7.27	3,512	6.03	7,566	6.63	53.58	46.42
New Private Sector banks	11,182	20.05	24,353	41.80	35,535	31.17	31.46	68.53
Foreign Banks	283	0.51	978	1.68	1,261	1.11	22.44	77.55
All Banks	55,760	100.00	58,254	100.00	1,14,014	100.00	48.90	51.10

Source: Report on Trends and Progress of Banking in India, RBI

4.3 Transactions through Retail Electronic Payment Systems: - The electronic payment systems such as Electronic Clearing Service (ECS) credit and debit and National Electronic Fund Transfer (NEFT) have improved the speed of financial transactions across the country. Electronic Clearing Service (ECS) is one of the new electronic banking services. ECS is a non-paper based movement of funds which is encouraged by the RBI on a wide scale. ECS consists of- Electronic Credit Clearing Service & Electronic Debit Clearing Service. ECS brings down administration cost and ensures profitability and productivity to the banks. National Electronic Fund Transaction (NEFT) is a deferred net settlement system and is an improvement over other modes in terms of security and processing efficiency. This facility is currently available at over 46,300 bank branches throughout the country. Table 4 shows the volume of electronic transactions of Scheduled Commercial Banks. In average terms volume of ECS Debit (114.32) is greater than ECS Credit (99.24). Growth rate in case of ECS Credit has increased whereas in case of ECS Debit has increased in 2008-09 and declined in 2009-10 but again increased from 2010-11. Volume of NEFT has also increased and on average it has increased at the rate of 124.11 over the period of 7 years. Growth rate in case of NEFT has increased remarkably.

Table 4.4: Volume of Electronic Transactions of Scheduled Commercial Banks (Volume in Millions)

Year/ Transaction	ECS Credit		ECS Debit		NEFT	
	Volume	Growth Rate	Volume	Growth Rate	Volume	Growth Rate
2006-07	69.0	-	75.2	-	4.77	-
2007-08	78.3	13.48	127.1	69.01	13.3	178.8
2008-09	88.3	27.97	160.0	112.76	32.1	572.9
2009-10	98.1	42.17	149.3	98.33	66.3	1289.9
2010-11	117.3	70.0	156.7	108.38	132.3	2673.6
2011-12	121.5	76.09	165	119.41	226	4637.94
2012-13	122.2	77.10	177	135.37	394	8159.96
Average	99.24		114.32		124.11	

Source: Report on Trends and Progress of Banking in India, RBI

Table 4.5 shows value of electronic transactions of scheduled commercial banks. In average terms the value of ECS Credit is greater than ECS Debit though in value terms is reverse. Growth rate in case of ECS Credit in 2007-08 is higher and in later

years it declined but from 2010-11 it again increased. Growth rate in 2010-11 has increased. NEFT has also increased in value terms. In 2010-11 it was Rs. 9391 billion and in average terms it has increased at the rate of Rs. 9301.14 billion Growth rate in case of NEFT has also increased remarkably as compared to base year 2007.

Table 4.5: Value of Electronic Transactions of Scheduled Commercial Banks (Value in Rs billion)

Year/ Transaction	ECS Credit		ECS Debit		NEFT	
	Value	Growth Rate	Value	Growth Rate	Value	Growth Rate
2006-07	833	-	254	-	774	-
2007-08	7822	839.34	489	92.35	1403	81.19
2008-09	975	17.06	670	70.91	2520	225.34
2009-10	1176	41.24	695	173.27	4095	428.76
2010-11	1817	118.18	736	189.48	9391	1112.65
2011-12	1838	120.65	834	228.35	17903	2213.05
2012-13	1771	112.60	1083	3326.37	29022	3649.61
Average	2318.86		680.14		9301.14	

Source: Report on Trends and Progress of Banking in India, RBI

4.4 Electronic Clearing Cards: - Now-days Electronic Cash is being used in place of hard cash. Electronic Clearing Cards such as debit and credit cards. Debit card allows „anywhere any time accesses“ to the customers with their savings or current account. A customer possessing a Debit Card need not carry cash. Credit card also serves as convenient medium of exchange. It enables a customer to purchase goods or services within prescribed limits from certain authorized retail and service establishments without making immediate cash payments. It is also called plastic money. The most important difference between a Credit card and a Debit card is that while credit card is a post- paid and debit card is pre-paid. Table 6 shows Bank Group-wise outstanding number of debit cards issued by scheduled commercial banks as at end March 2013. In 2012-13, Public sector banks have highest number of debit cards issued (260) which is 78.52 percent of total debit cards issued by the industry. Nationalized Banks (35.81) and SBI group (41.19) have high percent of cards issued as compared to Private sector banks (20.32). The share of new private sector banks is higher as compared to old private sector banks. Foreign banks have 0.10 percent of total debit cards issued.

Table 4.6: Bank Group-wise Outstanding Number of Debit Cards Issued by Scheduled Commercial Banks (As at end March, 2013) (in millions)

Bank Group/ Year	2007-08		2008-09		2009-10		2010-11		2011-12		2012-13	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Public Sector Banks	64.33	62.79	91.7	66.72	129.69	71.26	170.34	74.76	214.6	77.08	260	78.52
Nationalised Banks	28.29	27.62	40.71	29.62	58.82	32.32	80.27	35.23	97.7	35.09	118.6	35.81
SBI Group	36.04	35.18	50.99	37.10	70.87	38.94	90.07	39.53	112	40.23	136.4	41.19
Private Sector Banks	34.10	33.29	41.34	30.08	47.85	26.29	53.58	23.52	60	21.55	67.3	20.32
Old Private Sector Banks	5.34	5.21	7.09	5.16	9.81	5.39	12.44	5.45	13.90	4.99	15.4	4.65
New Private Sector Banks	28.76	28.07	34.25	24.92	38.04	20.90	41.14	18.06	46.00	16.52	51.9	15.67
Foreign Banks	4.02	3.92	4.39	3.19	4.43	2.43	3.92	1.72	3.80	1.36	3.3	0.10
All Banks	102.44	100.00	137.43	100.00	181.97	100.00	227.84	100.00	278.40	100.0	331.2	100.00

Source: Report on Trends and Progress of Banking in India, RBI

Table 4.7 shows Bank Group-wise outstanding number of credit cards issued by scheduled commercial banks as at end March 2013. The number of credit cards issued has declined from 3.93 million in 2007-08 to 3.08 in 2010-11 and it further declined in the year 2011-12. Although it increased in the year 2012-13 to 3.5 In 2013 the percent of total cards issued in case of private sector banks is highest that is 56.92 percent in case of which major share is of new private sector banks that is 56.92 and that of old private sector banks is 0.21. The share of public sector banks is just 17.95 percent and that of foreign banks is 25.64 percent.

Table 4.7: Bank Group-wise Outstanding Number of Credit Cards issued by Scheduled Commercial Banks (As at end March 2013) (in millions)

Bank Group/ Year	2007-08		2008-09		2009-10		2010-11		2011-12		2012-13	
	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total	No.	% of total
Public Sector Banks	3.93	14.26	3.44	13.93	3.26	17.79	3.08	17.07	3.06	17.33	3.5	17.95
Nationalised Banks	0.72	2.61	0.72	2.91	0.73	3.98	0.78	4.32	0.84	4.76	0.9	4.62
SBI Group	3.21	11.65	2.72	11.01	2.53	13.80	2.30	12.75	2.22	12.58	2.6	13.33
Private Sector Banks	13.29	48.24	12.18	49.31	9.5	51.83	9.32	51.66	9.67	54.79	11.1	56.92
Old Private Sector Banks	0.04	0.15	0.06	0.24	0.06	0.33	0.04	0.22	0.04	0.23	0.04	0.21
New Private Sector Banks	13.25	48.09	12.12	49.06	9.44	51.50	9.28	51.44	9.63	54.56	11.1	56.92
Foreign Banks	10.33	37.49	9.08	36.76	5.57	30.39	5.64	31.26	4.92	27.87	5.0	25.64
All Banks	27.55	100.00	24.70	100.00	18.33	100.00	18.04	100.00	17.65	100.00	19.5	100.00
All Banks	102.44	100.00	137.43	100.00	181.97	100.00	227.84	100.00	278.40	100.0	331.2	100.00

Source: Report on Trends and Progress of Banking in India, RBI

5.0 Challenges in adoption of E-banking:

E-banking is facing following challenges in Indian banking industry:

The most serious threat faced by e-banking is that it is not safe and secure all the time. There may be loss of data due to technical defaults.

E-banks are facing business challenges. For the transactions made through internet, the service charges are very low. Unless a large number of transactions are routed over the Web the e-banks cannot think of profit.

There is lack of preparedness both on part of banks and customers in the adoption of new technological changes.

There is lack of proper infrastructure for the installation of e-delivery channels.

6.0 Recommendations: -

E-banks should create awareness among people about e-banking products and services. Customers should be made literate about the use of e-banking products and services.

Special arrangements should be made by banks to ensure full security of customer funds. Technical defaults should be avoided by employing well trained and expert technicians in field of computers, so that loss of data can be avoided

Employees of banks should be given special technical training for the use of e-banking so that they can further encourage customers to use the same.

Seminars and workshops should be organised on the healthy usage of e-banking especially for those who are ATM or computer illiterate.

E-banking services should be customised on basis of age, gender, occupation etc so that needs and requirements of people are met accordingly.

Government should make huge investments for building the infrastructure.

7.0 Conclusion:

In India, E-banking is in a nascent stage. No doubt Indian banks are making sincere efforts for the adoption of advanced technology and installation of e-delivery channels but still masses are wary of the concept. Banks are making sincere efforts to popularise the e-banking services and products. Younger generation is beginning to see the convenience and benefits if e-banking. In years to come, e-banking will not only be acceptable mode of banking but will be preferred mode of banking.

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