



Trends in E-Banking: A Study on Indian Banking Scenario

Dr. Veena K.P

Associate Professor, Dept. of Master of Business Administration (MBA), Visvesvaraya Technological University, Post Graduation Studies, Mysore Regional Centre, Mysore – 570029, Karnataka.

Nayana N

Assistant Professor, Dept. of Master of Business Administration (MBA), GSSSIETW, Mysore – 570016, Karnataka

ABSTRACT

Today E-banking is known as smart banking, touch banking, 360degree banking, innovative banking, virtual banking and 24X7 banking. Banks are playing an important role in the economic development country. Economic development of a country involves investment in various sectors of the economy. The bank collects small savings from the public for investment in various projects. Present banking scenario has come up with a lot of new initiatives which are oriented to provide a better customer service and facilities with the help of information technology. One of these reasons is the inherent benefit of e-banking to saving time and speed in the transaction of banking activities and consequently enhancing the performance of banks. The paper tries to focus on public, private, nationalized, and foreign e-banking services. And the different forms of in Indian scenario. Finally paper concludes technology changes and making trends in E-banking which helps for the development.

KEYWORDS : ATM, Pos, NEFT, RTGS, Mobile Banking

Introduction:

The fast emerging economy is bringing with it rapidly changing technologies, increasing knowledge intensity in all areas of business and service delivery channels to the customers such as e-banking. E-banking often attracts high profit customers with higher than average income and education levels, which helps to increase the size of revenue streams. For a retail bank, e-banking customers are therefore of particular interest, and such customers are likely to have a higher demand for banking products. Technology is playing a major role in improving the standards of service delivery in financial institution sectors. Technology has touched every aspects people's life including banking. Day is long gone when customers would queue in the bank waiting to pay their utility bills, fees and other transactions. This has become easier by using their ATM cards or over the internet from the comfort of the customer. This motivates the customers utilize the services of bank. It also results banks to spend more on technology and information to achieve maximum returns.

Today, we are having a fairly well developed banking system with different classes of banks – public sector banks, foreign banks, private sector banks. To cope with the pressure of growing competition, Indian commercial banks have adopted several initiatives and e-banking is one of it. 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. The fast advancing global information infrastructure enable the development of electronic commerce at a global level. The nearly universal connectivity which the Internet offers has made it an invaluable business tool. These developments have created a new type of economy, which many call the 'digital economy'. Most of them are using online channels regularly for a variety of purposes, and for some there is no need for regular personal contacts with the bank's branch network, which is an expensive channel for banks to run. Some research suggests that adding the Internet delivery channel to an existing portfolio of service delivery channels results in nontrivial increases in bank profitability (Young, 2007). These extra revenues mainly come from increases in noninterest income from service charges on deposit/current accounts. These customers also tend to be of high income earners with greater profit potential. Electronic banking, also known as electronic funds transfer (EFT), is simply the use of electronic means to transfer funds directly from one account to another, rather than by cheque or hard cash. You can use electronic funds transfer to: Have your paycheck deposited directly into your bank or credit union checking account, Withdraw money from your checking account from an ATM machine with a personal identification number (PIN), at your convenience, day or night, Instruct your bank or credit union to automatically pay certain monthly bills from your account, such as your auto loan or your

mortgage payment, Have the bank or credit union transfer funds each month from your checking account to your mutual fund account, Have your government social security benefits check or your tax refund deposited directly into your checking account, Buy groceries, gasoline and other purchases at the point-of-sale, using a check card rather than cash, credit or a personal check, Use a smart card with a prepaid amount of money embedded in it for use instead of cash at a pay phone, expressway road toll, or on college campuses at the library's photocopy machine or bookstores, Use your computer and personal finance software to coordinate your total personal financial management process, integrating data and activities related to your income, spending, saving, investing, recordkeeping, bill-paying and taxes, along with basic financial a

E-banking

E-Banking is your personal banking service on the Internet, protected with bank identifiers. It is available anywhere, anytime. You can also check your account balances and transactions. You can order a new card, withdraw a loan granted to you and make mutual fund subscriptions. You access E-Banking services by obtaining bank identifiers. E-Banking as such is free of charge but commissions and fees in accordance with the service tariff will be levied on orders and other transactions carried out through e-Banking. Many people see the development of e-Banking as a revolutionary development, but, broadly speaking, e-banking could be seen as another step in banking evolution. Just like ATMs, it gives consumers another medium for conducting their banking. The fears that this channel will completely replace existing channels may not be realistic, and experience so far shows that the future is a mixture of "clicks (e-banking) and mortar (branches)". Although start up costs for an internet banking channel can be high, it can quickly become profitable once a critical mass is achieved.

VARIOUS FORMS OF E-BANKING:**AUTOMATED TELLER MACHINES (ATM):**

An Offsite and Onsite Electronic machine in a public place and Branch Bank's, connected to a data system and related equipment and activated by a bank customer to obtain cash withdrawals and other banking services. Also called automatic teller machine, cash machine. It is also called money machine or Any time Money.

REAL-TIME GROSS SETTLEMENT SYSTEMS (RTGS)

RTGS are specialist funds transfer systems where the transfer of Cash or securities takes place from one bank to another on a "real time" and on a "gross" basis. Settlement in "real time" means a payment transaction is not subjected to any waiting period, with transactions being settled as soon as they are processed. "Gross settlement" means the transaction is settled on one to one basis without bundling or netting

with any other transaction. "Settlement" means that once processed, payments are final and irrevocable.

POINT OF SALE (POS)

A POS transaction is a point-of-sale transaction- generally a purchase made at a retailer with your debit card. To complete your purchase, you usually enter your PIN instead of signing for the purchase. On your statement (or online transaction history), you'll see a list of these purchases, and some banks charge additional fees for POS transactions. Banks and card processing networks charge swipe fees to retailers when you pay with plastic. The fees are lower when you choose "Debit," which makes retailers happy. If you choose "Credit" instead, retailers pay higher fees (so you don't have to), but you should expect those retailers to pass the costs on to you in the form of higher prices.

MOBILE BANKING

Mobile banking is a service provided by a bank or any financial institution allows its customers to conduct a range of cash transaction using such as a smart phone or mobile device or Tablet, using software, usually called an application (APPs), provided by the financial institution or Bank for the purpose. Mobile banking is usually available on a 24-hour basis. Some financial institutions have restrictions on which accounts may be accessed through mobile banking, as well as a limit on the amount that can be transacted.

ELECTRONIC CLEARING SYSTEM (ECS) FOR CREDITS AND DEBITS

ECS is an electronic mode of funds transfer from one bank account to another. It can be used by company, Business or institutions for making payments such as distribution of dividend interest, salary, pension, among others. It can also be used to pay bills and other charges such as telephone, electricity, water or for making equated monthly installments payments on loans as well as SIP investments. ECS can be used for both credit and debit purposes.

NATIONAL ELECTRONIC FUNDS TRANSFER (NEFT):

National Electronic Funds Transfer (NEFT) is one of the most prominent electronic funds transfer system in India. Started in November 2005, NEFT is a facility provided to bank customers to enable them to transfer funds easily and securely on a one-to-one basis. It is done via electronic messages. This is not on real-time basis like RTGS (Real Time Gross Settlement). This is a "net" transfer facility which is executed in hourly batches resulting in a time lag. NEFT facilities are available in 30,000 bank branches all over the country and work on a batch mode.

TELE BANKING:

Tele-banking enables customers of the financial institution to perform financial transactions over the telephone, without the need to visit a bank branch or automated teller machine. Telephone banking reduces the cost of handling transactions by reducing the need for customers to visit a bank branch for non-cash withdrawal and deposit transactions. Telephone banking times can be longer than branch opening times, and some financial institutions offer the service on a 24 hour basis. Undertaking a host of banking related services including financial transactions from the convenience of customers chosen place anywhere across the GLOBE and any time of date and night has now been made possible by introducing on-line Tele-banking services.

DEBIT AND CREDIT CARD:

Debit cards are also known as check cards. Debit cards look like credit cards or ATM (automated teller machine) cards, but operate like cash or a personal check. Debit cards are different from credit cards. While a credit card is way to "pay later", a debit card is way to "pay now". When you use a debit card, your money is quickly deducted from your checking or savings account. Debit cards are accepted at many locations, including grocery stores, retail stores, gasoline stations, and restaurants. You can use your card anywhere merchants display your card's brand name or logo. They offer an alternative to carrying a checkbook or cash.

E-CHEQUE:

An E-cheque work the same way a cheque does, the cheque writer "writes" the e-Cheque using one of many types of electronic devices and "gives" the e-Cheque to the payee electronically. The payee "deposits" the Electronic Cheque receives credit, and the payee's bank

"clears" the e-Cheque to the paying bank. The paying bank validates the e-Cheque and then "charges" the check writer's account for the check

REVIEW OF LITERATURE

Yang, Whitefield and Bhanot (2005), E-Banking in Rural Area - Recent Trend and Development: A Case Study. This paper discusses recent trend and development of e-banking for small and community banks in rural areas through a case study. The applications of e-banking of several local banks in rural areas are investigated and examined. The research objective is to investigate the trends and level of prevalence of on-line banking focusing on some emerging issues and challenges. This paper describes a case study of three such small local banks and their efforts in developing and operating their e-banking services. Both their successes and struggles discussed in this paper could provide some meaningful insights and serve as comparative examples (i.e., benchmarks) in evaluating the performance of e-banking operations, especially for those small and local community banks.

Lal and Saluja (2012), Undertook Study On E-Banking: The Indian Scenario, 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.

Kani and Merlin (2013), focused on Issues and Challenges Faced by ATM Customers of State Bank of India In South Tamilnadu, This study aims at identifying the issues and challenges faced by customers. It was revealed withdraw in cash through ATM was very convenient and majority of the respondents had used ATM services regularly. The study has demonstrated that a considerable number of customers have access to this machine and are consequently utilizing them for multi-purpose transactions, despite its challenges and shortcomings. The conclusion that may be reached here is that young people today are the drivers of emerging technology in a developing area. The well organized and planned performance of the SBI in the arena of ATM cards is clearly supported by this study.

Mohiuddin (2014), conducted study on Trend and Development of E-Banking: A Study on Bangladesh. The paper aims the concept of E-banking, explore the present scenario of online banking in Bangladesh, The online banking system of Different commercial Banks in Bangladesh, the major challenges of E-Banking. The paper focus on present, private & public banks of Bangladesh have taken various steps in E-banking. This work has been conducted from the secondary data maximally. This article has drawn present trend & development of E-banking in Bangladesh. The paper concludes online banking has a few risk in this field but it has much advantage than negative aspects. The future of electronic banking will be a system where users are able to interact with their banks "worry-free" and banks are operated under one common standard In Bangladesh.

Ibrahim, Shahid, Akbar and Ahmed (2015), study on Determining the Effect of Innovations for Mobile Banking Adoption in Pakistan, The objective of this research was to check the impact of innovations on adoption of mobile banking in Pakistan. The paper concludes innovation has positive significant correlation which means that new and most advanced technological innovations and different appropriate customer services like as ease of use and usefulness great influence on adoption of mobile banking in Pakistan.

Kombe and Wafula (2015), describes study on Effects of Internet Banking on the Financial Performance of Commercial Banks in Kenya a Case of Kenya Commercial Bank, the objective of the paper are the effect of cheaper internet connectivity on performance of banks, The effects of 24 hour e-banking to the overall financial performance of commercial banks, the effects of the ICT competence of the customers on the financial performance of banks. The target population

comprised of 31 employees of KCB, The paper concludes From the study it can be found that the reduced internet costs lowers transaction costs which attracts potential customers to the bank.

Murali and Murthy(2016), Conducted A Study On E-Banking And Its Problems With Reference To Selected Banks In Chittoor Town, Andhra Pradesh, the aims to know how many customers are using electronic banking services sample banks, the operation of electronic banking by the respondents of sample banks in the study area; and the problems of sample banks' customers while operating e-banking in the present study and on the basis of the findings made, offer some workable suggestion to better the services offered by the India banking system. The present study is based on primary data for analysis on a sample size of 150 customers of the sample banks in India. The study was carried out during January 2015 to December 2015.

Kashmari, Nejad and Nayebyazdi (2016) study on Impact of Electronic Banking Innovations on Bank Deposit Market Share, the paper focus on the Development and diversity of electronic banking services is one of the aspects of financial innovation of banks. The main purpose of this study is to evaluate this innovation, which needs a heavy cost in terms of money and time, on the share of each bank in attracting deposit as one of the most important goals and competitive tools of a bank. The results show that based on the Granger Causality Test, the number of ATM machines, POS, PIN pad, SWIFT system and amount of banking facilities provided by each bank, has causal relation in explaining the increase of the bank's share in attracting deposits, but the Market Share was recognized as the cause of the innovation.

Objective of the study

- To highlight different forms of e-banking in Indian scenario;
- To study the present scenario of E-banking banking in Scheduled Commercial Banks in India;
- To analyze the E-banking system of different Commercial Banks in India; and
- To offer Suggestions in the light of study.

Research Methodology

The present study is concerned with the Indian banking industry and exhibits growth of e- banking channels in various bank groups. The statistical tool like standard deviation and co-efficient variation are used with the help of Excel.

SAMPLE DESIGN:

- The study is Indian banking industry in major bank groups.
- Public Sector Bank
- Nationalized Banks
- Private Sector Banks –Old and New Private Sector banks.

DATABASE:

Secondary data: Report on Trend and Progress of Banking in India, 2011-16 RBI, Mumbai, Journals, websites, Books.

Standard Deviation: The standard deviation concept measure of variability computed by taking the positive square root of the Variance.

Sampled standard deviation :

S =
$$\sqrt{\frac{\sum (x-\bar{x})^2}{(n-1)}}$$

Co-efficient variation: a measure of relative variability computed by dividing the standard deviation by the mean, then multiplying by 100.

C.V =
$$\frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

A scheduled bank, in India, refers to a bank which is listed in the 2nd Schedule of the Reserve Bank of India Act, 1934. Banks not under this Schedule are called non-scheduled banks. Scheduled banks are usually private, foreign and nationalized banks operating in India.

Public sector bank

Public Sector Banks (PSBs) are banks where a majority stake (i.e. more than 50%) is held by a government. The shares of these banks are listed on stock exchanges. There are a total 27 PSBs in India [21 Nationalized banks + 6 State bank group (SBI + 5 associates)]. In 2011 IDBI bank and in 2014 Bharatiya Mahila Bank were nationalized with a minimum capital of ₹500 crores.

Table 1: No. of E-Banking Services in Public Sector Bank

Items	2012-13	2013-14	2014-15	2015-16	S.D	Mean	C.V (%)
No. of ATM	0.16	0.20	0.85	0.11	0.35	0.33	107%
No. of Pos	0.03	1.21	1.64	0.63	0.70	0.9	80%
No. of outstanding credit cards	0.06	0.13	0.25	0.17	0.08	0.2	50%
No. of outstanding debit cards	0.25	0.21	0.90	0.11	0.36	0.4	98%

From the above table analyze that growth rate in number of ATMs are forth time more in 2014-15 as compared from 2013-14, and shows 0.35 Standard deviation, Co-efficient variance in 107%. In POS it shows increase almost 1.21 during 2013-14 and continues 1.64 in 2014-15 and shows major deviation 0.70. In number of Credit cards Maximum cards growth 0.25 are in 2014-15 and only 0.08 deviations are observed. The Number of Debit cards growth is high in 2014-15 i.e., 0.90 and deviation is 0.36 and 98% of co-efficient Variance. In public sector banks Maximize its growth rate during 2014-15 in E-banking services compared to other years. The Deviation is more in POS but the Co-efficient variance is maximum in ATMs.

Nationalized Bank:

Nationalization is a process whereby a national government or State takes over the private industry, organisation or assets into public ownership by an Act or ordinance or some other kind of orders. This strategy has been frequently adopted by socialist governments for transition from capitalism to socialism. Thus, now strictly speaking 19 nationalized banks are in existence. RBI on its website also lists under "Nationalised Banks" category only these 19 banks.

Table 2: No. of E-Banking Services in Nationalized Bank

Items	2012-13	2013-14	2014-15	2015-16	S.D	Mean	C.V(%)
No. of ATM	0.23	0.19	1.02	0.12	0.42	0.39	108%
No. of POS	0.03	0.02	0.89	0.89	0.50	0.46	109%
No. of outstanding credit cards	0.06	0.06	0.30	0.24	0.12	0.16	76%
No. of outstanding debit cards	0.26	0.21	1.04	0.21	0.41	0.43	95%

The table 2 analyze that growth rate in number of ATMs of Nationalized Banks are High during the year 2014-15 as compared from 2013-14, and shows 0.42 Standard deviation, Co-efficient variance in 108%. The Number of POS is increasing from 2012-16 i.e., 0.3 to 0.89 and the SD is also high 0.50. The number of Credit cards is Maximum growth 0.24 are in 2015-16 and only 0.16 deviations are observed. The Number of Debit cards growth is high in 2014-15 i.e., 1.04 and deviation is 0.41 and 95% of co-efficient Variance. In Nationalized banks the growth can be seen from 2014-15 later stage it is decreased. The Deviation is more in POS .

Private Sector Banks:

The private-sector banks in India represent part of the Indian banking sector that is made up of both private and public sector banks. The «private-sector banks» are banks where greater parts of state or equity are held by the private shareholders and not by government. The private sector banks are split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalization in 1969 and kept their independence because they

were either too small or specialist to be included in nationalization. The new private sector banks are those that have gained their banking license since the liberalization in the 1990s.

Table 3: No. of E-Banking Services in Private Sector Bank

Items	2012-13	2013-14	2014-15	2015-16	S.D	Mean	C.V(%)
No. of ATM	0.50	0.19	0.19	0.08	0.18	0.24	75%
No. of POS	0.12	0.22	0.11	0.06	0.07	0.13	51%
No. of outstanding credit cards	0.04	0.15	0.09	0.22	0.08	0.12	63%
No. of outstanding debit cards	0.10	0.12	0.35	0.21	0.11	0.20	57%

From table 3 analyze that growth rate in number of ATMs of Private sector Banks are Low during the year 2013-14 as compared from 2012-13, and shows 0.18 Standard deviation, Co-efficient variance in 75% maximum. The Number of POS is increasing from 2012-14 i.e., 0.12 to 0.22 and the SD is also 0.07. The number of Credit cards is Maximum growth 0.22 are in 2015-16 and only 0.12 deviations. The Number of Debit cards growth is high in 2014-15 i.e., 0.35 and deviation is 0.11 and 57% of co-efficient Variance. In Private Sector banks the growing initially i.e., 2012-13 but after after 2013-14 decline are in POS, Credit. In 2014-15 remaining channels are declined. And maximum SD and CV in ATM.

Table 4: No. of Transaction in E-Banking Services in Scheduled Commercial Bank

Items	2011-12	2012-13	2013-14	2014-15	2015-16	S.D	Mean	C.V(%)
NEFT	-	0.74	0.76	0.28	0.22	0.29	0.50	58%
RTGS	-	0.15	0.18	0.12	0.02	0.07	0.12	60%
Mobile banking	-	1.05	0.68	0.84	1.50	0.44	1.01	43%

From the above Table4 showing Number of Transaction in NEFT growth rate in increasing from 2012-14 but during the year 2014-16 slowly it is decreasing and the deviation is 0.29 and CV is 58%. The RTGS transaction are increased during 2013-14 i.e., 0.18 having only 0.07 deviation. In Mobile Banking initially maximum growth and decreased in 2013-14 again maximized in 2014 -16, having maximum deviation is 0.44 and CV is only 43%. The co-efficient variance is high in RTGS transactions compared to other two. But in Mobile banking is 0.44 which is more compared to RTGS and NEFT.

Findings of the Study:

- About 0.35 deviation in Growth of ATM, and POS it shows increase almost 1.21 during 2013-14 and continues 1.64 in 2014-15 and shows major deviation 0.70 in Public sector banks
- Maximum credit cards growth i.e., 0.25 are in 2014-15 and only 0.08 deviations are observed. The Number of Debit cards growth is high in 2014-15 i.e., 0.90 and deviation is 0.36 and 98% of co-efficient Variance in Public sector bank.
- High growth rate during the year 2014-15 as compared from 2013-14, and shows 0.42 Standard deviation, Co-efficient variance in 108%. The Number of POS is increasing from 2012-16 i.e., 0.3 to 0.89 and the SD is also high 0.50 in Nationalized banks.
- The number of Credit cards is Maximum growth 0.24 are in 2015-16 and only 0.16 deviations are observed. The Number of Debit cards growth is high in 2014-15 i.e., 1.04 and deviation is 0.41 and 95% of co-efficient Variance in Nationalized bank.
- The growth rate in number of ATMs of Private sector Banks are Low during the year 2013-14 as compared from 2012-13, and shows 0.18 Standard deviation, Co-efficient variance in 75% maximum. The Number of POS is increasing from 2012-14 i.e., 0.12 to 0.22 and the SD is also 0.07.
- The number of Credit cards is Maximum growth 0.22 are in

2015-16 and only 0.12 deviations. The Number of Debit cards growth is high in 2014-15 i.e., 0.35 and deviation is 0.11 and 57% of co-efficient Variance in Private sector bank.

- Number of Transaction of scheduled commercial bank in NEFT growth rate in increasing from 2012-14 but during the year 2014-16 slowly it is decreasing and the deviation is 0.29 and CV is 58%.
- The RTGS transaction in scheduled commercial bank are increased during 2013-14 i.e., 0.18 having only 0.07 deviation. In Mobile Banking initially maximum growth and decreased in 2013-14 again maximized in 2014 -16, having maximum deviation is 0.44 and CV is only 43%.

Suggestions for the Study:

- Indian Government along with various government agencies is making an effort to make e-banking more convince, safe, secure and reliable.
- Focusing on user to make guarantee for every transaction in order to inspire greater confidence to promote e-banking.
- Awareness programs for illiterates so that educating to utilize digital e-banking system.
- Reduce charges for the transaction in online banking.
- Promoting E-banking culture across India.

Conclusion:

The digitalization of Indian banking systems faces a lot of challenges and stands for developing. The greatest emphasis has been placed by the banking for the improvement of electronic services, fund transaction facilities, and other services in E-banking. The paper concludes that many changes is taking place with technology and helps to show trends in e-banking. This creates drastic changes in banking industry. Thus, even though IT management is a challenging task in future banking. The paper identifies that there was a maximum growth in ATM and Debit cards transaction. Giving some more importance for other channels leads good profitability also. Giving 24X7 services of ATM gives more competition between Public and Private sector banks. Hence leads to customers loyalty and derived safety also.

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