CHAPTER – III
E-BANKING SCENARIO IN INDIA

Introduction

Electronic banking is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution. The following terms all refer to one form or another of electronic banking: personal computer (PC) banking, Internet banking, virtual banking, online banking, home banking, remote electronic banking, and phone banking. PC banking and Internet or online banking is the most frequently used designations. It should be noted, however, that the terms used to describe the various types of electronic banking are often used interchangeably.

Electronic banking is an activity that is not new to banks or their customers. Banks having been providing their services to customers electronically for years through software programmes. These software programs allowed the user’s personal computer to dial up the bank directly. In the past however, banks have been very reluctant to provide their customers with banking via the Internet due to security concerns. Today, banks seem to be jumping on the bandwagon of Internet banking. Why is there a sudden increase of bank interests in the Internet? The first major reason is because of the improved security and encryption methods developed on the Internet. The second reason is that banks did not want to lose a potential market share to banks that were quick to offer their services on the Internet.

Many of the banks like ICICI, HDFC, IndusInd, IDBI, Citibank, Global Trust Bank (GTB), Bank of Punjab and UTI were offering E-banking services. Based on the above statistics and the analysts’ comments that India had a high
growth potential for e-banking, the players focused on increasing and improving their E-banking services. As a part of this, the banks began to collaborate with functions online.

E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels. E-banking includes the systems that enable financial institution customers. Individuals or businesses, to access accounts, transact business, or obtain information on financial products and services through a public or private network including the Internet, Customers access e-banking services using an intelligent electronic device.

The E-banking was firstly introduced in India by the ICICI around 1996. There after many other banks like HDFC, IndusInd bank, IDBI, Citibank Trust Banks, UTI, etc. followed the service. As today private and foreign bank had started capturing the market through e-banking hence “the competition is heating up and the lack of technology can make a bank loose a customer” so now the public banks are breaking the shackles of traditional set-up and gearing up to face the competition posed by the private sector counterparts.

The Global E-Banking Scenario

The banking industry is expected to be a leading player in e-business. While the banks in developed countries are working primarily via Internet as non-branch banks, banks in the developing countries use the Internet as an information delivery tool to improve relationship with customers. Banks have established an Internet presence with various objectives, most of them arousing the Internet as a new distribution channel. Financial services, with the use of Internet, may be offered in an equivalent quantity with lower costs to the more potential customers.
There may be contacts from each corner of the world at any time of day or night. This means that banks may enlarge their market without opening new branches. The banks in the US are using the Web to reach opportunities in three different categories: to market information, to deliver banking products and services, and to improve customer relationship.

In Asia, the major factor restricting growth of e-banking is security, in spite of several countries being well connected via Internet. Access to high-quality e-banking products is an issue as well. Majority of banks in Asia are just offering basic services compared with those of developed countries. Still, e-banking seems to have a future in Asia. According to McKinsey survey, e-banking will succeed if the basic features, especially bill payment, are handled well. Bill payment was the most popular feature, cited by 40 percent of respondents of the survey. However, providing this service would be difficult for banks in Asia because it requires a high level of security and involves arranging transactions with a variety of players.

In India, approximately one percent of high and middle-income group banking customers conducted banking on the Internet in 2000 compared to 5 to 6 percent in Singapore and South Korea. In 2001, a Reserve Bank of India survey revealed that more than 20 major banks were either offering e-banking services at various levels or planned to do so in the near future. Some of the private banks included ICICI Bank, HDFC Bank, IndusInd Bank, IDBI Bank, Citibank, Global Trust Bank, Bank of Punjab and UTI Bank. In the same year, out of an estimated 0.9 million Internet user base, approximately 17 percent were reported to be banking on the Internet. The above statistics reveal that India does have a high growth potential for e-banking. The banks have already started focusing on increasing and improving their e-banking services. As a part of this, the banks
have begun to collaborate with various utility companies to enable the customers to perform various functions in online.

Majority of the banks in the US were offering e-banking services. However, large banks appeared to have a clear advantage over small banks in the range of services they offered. Some banks in the US were targeting their Internet strategies towards business customers. Apart from affecting the way customers received banking services; e-banking was expected to influence the banking industry structure. The economics of e-banking was expected to favour large banks because of economies of scale and scope, and the ability to advertise heavily. Moreover, e-banking offered entry and expansion opportunities that small banks traditionally lacked.

In Europe, the Internet is accelerating the reconfiguration of the banking industry into three separate businesses: production, distribution and advice. This reconfiguration is being further driven by the Internet, due to the combined impact of; the emergence of new, more focused business models, new technological capabilities that reduces banking relationship and transaction costs and high degree of uncertainty over the impact that new entrants will have on current business models.

Though e-banking in the Europe is still in the evolutionary stage, it is very clear that it is having a significant impact on traditional banking activities. Unlike in the US, though large banks in the Europe have a competitive edge due to their ability to invest heavily in new technologies, they are still not ready to embrace e-banking. Hence, medium-sized banks and start-ups have an important role to play on the e-banking front if they can take concrete measures quickly and effectively.
**The E-Banking Trends**

Convergence is one of the clear visible trends in the banking industry. Here, convergence does not mean offering banking, broking and insurance services under one corporate name through the Internet. It covers different dimensions, including channel delivery, sales, culture, back-office processes, and the knowledge management infrastructure all being integrated via Internet. Few banks take these different dimensions into consideration. Instead, they view convergence purely as a product-centric development that will enable them to cross-sell products. A strategy that does not go beyond product convergence is bound to have some limitations. For example, imagine a situation where customer service personnel in a so called 'converged' bank is required to answer banking, brokerage, and insurance questions coming through multiple channels including the Internet, branches, call centers, or ATMs. This bank is unlikely to succeed since, though it has expanded the product line, it has not made any efforts to broaden the skill sets of the personnel who support these channels.

Effective knowledge management is the key to the e-business success of converged banking institutions. However, this requires high level of cross-organizational cooperation and information sharing. An effective knowledge management system will vastly improve the institution's ability to know its customers. Robust customer information management systems at the front-end, coupled with efficient fulfillment processes, can enable banks to shorten the delivery time of their products and services. Successful convergence will help them in the development of a seamless supply chain that will be transparent to the customers.

Another trend in e-banking is a shift of focus of banks from being product-centric to customer-centric. Access to the Internet has put wealth management
decisions and demand-side technology in customers’ hands, and they can dictate the types of products and services they require. While the Internet has enabled banks to deliver desired products/services more quickly and inexpensively, the challenge for them is to enhance customer touch using e-channels, which is very important for client retention.

To succeed on the Internet, banks must continually differentiate them from their competitors, broaden their market and provide value through their products and services. For example, Wells Fargo had shifted 1.4 million of its traditional banking customers online within five years of the development of its transactional website. However, the company had maintained its Internet strategy as a complement to existing channels and had found that its e-banking customers were more than 50 percent less likely to leave the bank than non-Internet customers. The bank continued to enter new alliances and expanded its web offerings to maintain its dominant position.

Finally, developing just a me-too website would not work for banks. Several banks are creating electronic financial communities in which customers assemble to present and pay bills while satisfying other financial and informational needs. By bringing consumers and vendors together at one site, financial institutions can leverage the trust, clients have in them, and act as the intermediary to ensure billers get paid and consumers get satisfactory services. Last but not the least, banks may conduct periodical surveys and take customer views on the simplicity and ease of operation of their websites and other e-banking initiatives.

**Indian E-Banking Scenario**

As per the international report the banking transactions on a brick and mortar banking costs around $1.1. While through ATM it costs around $0.27 and
just 1 percent of over the counter banking in case of Internet banking. Thus, the Indian banking system is seeing a fabulous change in the quality of service provided by them. Technology is the root of this change, which is implemented by the banks’ to win more business from customers. Almost all the private sector banks are moving towards e-enabling their existing products. HDFC Bank and ICICI Bank have taken a lead in introducing e-banking in India.

Internet banking starts from migrating existing products and services to the internet. This started initially with simple functions such as getting information about interest rates, checking account balances and computing loan eligibility. Then the services were extended to online bill payment, transfer of funds between accounts and cash management services for corporates. Recently, banks started setting up payment gateways for B2B and B2C transactions. This is to facilitate payment for e-commerce transactions by directly debiting bank accounts or through credit cards. Banks can earn a commission based income, on the transaction or sale value resulting in higher income. This could be more than the revenues they can generate from credit card transactions.

Private sector banks have leveraged the Internet effectively in taking away the customers from public sector banks and significantly increased their revenue potential. Internet banking is just one manifestation of these banks’ technological capabilities. They have a complete automation, an electronic customer database, real time transaction processing capabilities and the latest technological platforms. Management of these banks is very focused in using technology as a key competitive tool. The capability of the management is also visible in terms of their profitability. Among the private sector banks HDFC Bank and ICICI Bank have excellent returns on equity compared to their peers in the industry.
These banks commenced operations few years and have negligible excess in terms of branches and employees. Therefore unlike most other banks around the world, e-banking is not an added cost for them. In fact it is expected to contribute significantly to their revenues and profits in years to come.

The distribution of banking business in India is highly skewed both geographically and in terms of customer segment. Geographically the top 100 centers account for around 70 percent of the loans disbursed. This are expected to account for mostly early Internet users. In terms of customer segment, key focus on the asset side is the corporate sector. This segment accounts for a high share of profits of banks and is likely to be an early adapter to the Internet. On the liability side Internet banking is expected to boost customer acquisition and profitability significantly in the top corporate segment and in the urban high/middle income retail segments.

Apart from e-banking, future prospects of e-commerce is also strong as it is set for explosive growth rates. For e-commerce to take off there is a need for real time financial intermediation and there are very few banks offering this in India. The right combination of customer relationship and technological competency is required to dominate the financial intermediation of e-commerce. Who else than private sector banks can provide such services? They are all set to lead the segment with a marginal competition from foreign banks. Going forward, as the share of e-commerce in the economy increases, these banks should be able to move up their market share apart from generating higher fee based income.

But one does wonder what difference e-banking make with only 22 percent of the Internet uses globally utilizing e-banking services. In India also the penetration is less than 1 percent. It is not all win-win case for Internet banking in
India. A number of uncertainties surround e-banking and e-commerce ventures. Among the others, hurdles like low Internet penetration, security issues, tax considerations and credit issues continue to depress the growth of the segment. Even if the government has passed the cyber laws, still there is a lack of clarity about legislative aspects governing the sector and the effectiveness of the administration to track & punish cybercrimes. It all depends on the ability of banks to enter these businesses successfully.

Those banks which have already started e-banking will have to continuously update their services to retain the potential customers since any customer is just a click away from a competitor elsewhere. Also, one cannot afford to depend only on Internet banking; brick and mortar will continue to play an important role. For those, which are yet to begin, are ignoring the potential customers by remaining away from the latest technology.

**Mediums of E-Banking**

The medium of e-banking services offered by the banking industry is discussed below:

**Various Products and Services**

Electronic banking, also known electronic fund transfer (EFT), uses computer and electronic technology as a substitute for checks and other paper transactions. EFTs is initiated through devices like cards or codes that let customer, or those customer authorize, access your account. Many financial institutions use ATM or debit cards and Personal Identification Numbers (PINs) for this purpose. Some use other forms of debit cards and personal Identification Numbers (PINs) for this purpose. Some use other forms of debit cards such as those that require, at the most, your signature or a scan. The federal Electronic Fund Transfer Act (EFT
Act) covers some electronic consumer transactions. Following are the electronic medium by which services are generally provided by the banks as a part of e-banking services.

1. Internet Banking
2. ATM (Automatic Teller Machine)
3. Phone Banking
4. Mobile Banking
5. Payment Cards (Debits/Credit Card)

All the above mediums provide services, which can be, also known as “any time anywhere banking”. This facilitates the customer of the bank to operate their account from any corner of the world, without visiting local or any subsidiary branch of their banks. Efforts are made by the bank not only to provide the facility to the customer, but also to reduce the operational cost of the bank by providing e-banking services. So with this, banks have to employ less staff and still would be able to deliver service to the customer, round the corner.

**Internet Banking**

Net banking is a web-based service that enables the banks authorized customers to access their account information. It allows the customers to log on to the banks website with the help of bank's issued identification and personal identification number (PIN). The banking system verifies the user and provides access to the requested services, the range of products and service offered by each bank on the internet differs widely in their content. Most banks offer net banking as a value-added service. Net banking has also led to the emergent of new banks, which operate only through the internet and do not exists physically, Such banks are called “virtual” banks or “Internet Only” banks.
A couple of years ago, there was a belief even among bankers that customers opening new accounts wanted the online banking facility, just to ‘feel good’ and very few of them actually used that services. Today, bankers believe that the trend from ‘nice to have’ is changing to ‘need to have’.

**Services provided through Internet Banking**

1. Account information
2. E-cheques (Online Fund Transfer)
3. Bill Payment Service
4. Requests And Intimations
5. Demat Account share trading

**Account information**

Account information provides summary of all bank accounts. Allow transaction tracking which enables retrieval of transaction details based on cheque number, transaction amount, and date. It also provide account statement and transaction reports used on user-defined criteria. Customers can even download and print the statement of accounts.

**E-Cheques (Online Fund Transfer)**

Customer can transfer funds; Transfer funds between accounts, even if they are in having an account with the same bank anytime, anywhere, using third party funds transfer option.

**Bill Payment Service**

Banks Bill Payment Service is the easiest way to manage bills. Account holder can pay their regular monthly bills i.e. telephone, electricity, mobile phone, insurance etc. at anytime, anywhere for free. Saves time and effort. Make bill
payments at customer’s convenience from their home or office. Let’s account holders check their bill amount before it is debited from their account. No debit to account without their knowledge. No more missed deadlines, no more loss of interest – account holder can schedule their bills in advance, avoid missing the bill deadlines as well as earn extra interest on their money. Track payment history – all payments to a biller are stored automatically for future reference. No queuing up at collection centers or writing cheque anymore. Just a few clicks and customers account will be debited for the exact amount they ask.

Requests and Intimations
Can electronically submit a request for:

- Cheque-book
- Stop payment instructions
- Opening a fixed deposit
- Opening a recurring deposit
- Intimate for the loss of ATM card
- Register online for phone and mobile banking
- Cheque status
- Online application for debit card
- Issue a DD or a Banker’s cheque from account at special rates.

Just select the account to be debited from and give details of the amount, location and beneficiary. The demand draft will be couriered to account holder at their mailing address. Customers can get their applications for issuance of Letters of Credit and Bank Guarantees processed online Book the customers Railways Ticket Online
**Demat Account**

Demat is commonly used abbreviation of ‘Dematerialisation’, which is a process whereby securities like share, debentures are converted from the ‘material’ (paper documents) unto electronic data and stored in the computer of an electronic Depository. A depository is a security ‘banks,’ where dematerialized physical securities are held in custody, and form where they can be traded. This facilitates faster, risk-free and low cost settlement.

**Share Trading**

In share trading a customer can buy and sell securities online without stepping into a broker’s office. Once the shares are dematerialized then the trading can be done from home or office. As demat account are directly linked to the customer’s bank account, so there is no need to write cheque for the payments or to fill up the slips to deposit the cheque. Amount for the purchase and sale of securities is automatically debited or credited to their bank account. It also brings the same convenience while investing in Mutual funds also hassle free and Paperless.

**ATMs**

Automated Teller Machines or 24-hour Tellers are electronic terminals that let the customer bank almost anytime. To withdraw cash, make deposits, or transfer funds between accounts, you generally insert an ATM card and enter your PIN. Some financial institution and ATM owners charge a fee, particularly to consumers who don’t have accounts with transactions at remote locations. Generally, ATMs must tell the customer they charge a fee and its amount on or at the terminal screen before the customer completes the transaction.
It is worth noting that, due to market saturation, overall ATM usage is increasing while transaction volume on a per-ATM basis is now in decline.

**Cash withdrawal**

Withdraw up to Rs.15,000/- to Rs.40,000 per day from customer account. Fast cash options provides the facility of withdrawing prefixed amounts. Ultra-Fast Cash operation allows you to withdraw Rs.3000/- in one shot.

**Balance Enquiry**

Know customer ledger balance and available balance

**Mini Statement**

Get a printout of your last 8 transactions and customer current balance.

**Deposit Cash / Cheques**

Available at all full function ATMs, customers can deposit both cash and cheques. Cash deposited in ATMs will be credited to the account on the same day (provided cash is deposited before the clearing) and cheques are sent for clearing on the next working day.

**Funds Transfer**

Transfer funds from one account to another linked account in the same branch.

**PIN Changes**

Change the Personal Identification Number (PIN) of ATM or Debit card.
Payments

The latest feature of ATMs is functionality can be used for payment of bills, making donations to temples / trusts, buying internet packs, airtime recharges for prepaid mobile phones and much more.

Others

Request for a checkbook from the ATMs and concerned branch will dispatch it such that it reaches the customer within 10 working days.

Credit Card Market in India

The card industry, which is growing at the rate of 20% per annum, is flooded with cards ranging from gold, silver, global, smart to secure, the list is endless. From just two players in early 80s, the industry now houses over 10 major players vying for a major chunk of the card pie. Currently four major bishops are ruling the card empire – Citibank, Standard Chartered Bank. HSBC and State Bank of India (SBI). The industry, which is catering to over 3.8 million card users.

Accordingly to a study conducted by State bank of India, Citibank is the dominant player, having issued 1.5 million cards so far. Stanch art follows way behind with 0.67 million, while Hong Kong Bank has 0.3 million credit card customers. Among the nationalized banks, SBI tops the list with 0.28 million cards, followed by Bank of Baroda at 0.22 million.

The credit card market in India, which started out in 1981, is on the verge of an unprecedented boom. Between 1987 and 2000, the market has virtually grown to over 3.8 million cards with almost 25-30% growth in new cardholders. The latest innovation in credit cards is the introduction of a magnetic slip in the card for use in withdrawing cash at the automatic teller machine (ATM), of which
about 60000 are already in existence in the world. In India also ATMs have made late appearance, but now spreading very rapidly.

**Advantages of Credit Card**

The following are the advantages of credit cards: 1. The credit card holders need not to carry either traveler’s cheques or cash with them and they are free from the security of cash. 2. Traveling facilities are available in hotels, restaurants and airways to the cardholders. 3. Each card holder gets insurance facility which is up to one lakh on ordinary insurance. 4. It has become a status symbol. Railway tickets are available on special windows. Extra charges are made by the railway and the cancellation of tickets is also allowed and the amount is directly credited in the bank account of the card holder. 5. The business of the card holder individuals or institution has been because the businessmen are assured for the payment as the transactions have been finalized on the basis of credit cards. 6. Credit cards enhance the credit of banks and the credit of new customers and consumers is enhanced. 7. Deposits in saving and current accounts increase. 8. Service charges on credit card increase the profitability of banks.

**Disadvantages of Credit Card**

Credit cards its own disadvantages as discussed below:

1. Credit card is a contact in advance and if the card holder does not make payment, the recovery by bank becomes difficult. 2. Card holders spend in excess of their incomes and it poses the problem of recovery form them. 3. Bank’s profitability is adversely affected due to increase in overdraft of cardholders and difficulties in repayment by them.
Future of Credit Cards

In India this facility has increased the business activities; middle and upper middle classes are availing this facility. It has become popular and status symbol in India hence the prospects of credit cards are bright.

Smartcards

A smartcard resembles a credit card except that it has a microchip embedded with in it, which allows the smartcard to store information and sometimes to even perform simple calculations. Common smartcard chips typically holds about 8,000 bytes (characters) of information, which enables the smartcard to perform a variety of functions such as identification, storing bank account information and holding digital cash. A number of smartcards are on the market today, and these are used in a wide range of applications. Mondex has received a lot of recognition in the financial press, and several banks have already conducted trials with its smartcard. Wells Fargo & Co., a major California bank based in San Francisco, will issue Mondex smartcards to all of its online banking customers, because MasterCard International holds a 51 per cent stake in Mondex, it could become the defect to international standard for bank-issued smartcards.

Smart Cards – The new Innovation

A smart card is a miniaturized personal computer (PC), which can be used for a dazzling array of applications, and also as ‘digital’ cash. It contains a microprocessor, memory and tailored software. The software security system used for these cards is almost as foolproof as those used by nuclear establishments and leading international banks! Smart cards can manage security procedures using passwords and state-of-the-art encryption techniques. Further, identity traits such as digitized photos, signatures and fingerprints being placed on the card make it fraud-proof.
E-money

E-money may be broadly defined as “an electronic store of monetary value on a technical device used for making payments to undertakings other than the issuer on a technical device used for making payments to undertakings other than the issuer without necessarily involving bank accounts in the transaction, but acting as a pre-paid bearer instrument” (European Central Bank, 1998) These products could be classified into two broad categories viz., A) Pre-paid stored value card (sometimes called “electronic purse”) and B) Pre-paid software based product that used computer networks such as internet (sometimes referred to as “digital cash” or “network money”). The stored value card scheme typically uses a microprocessor chip embedded in a plastic card while software based scheme typically specialized software installed in a personal computer. The stored value card could be of three types single-purpose card, closed-system or limited-purpose card could be of three types single-purpose card, closed-system or limited-purpose card and general-purpose or multi-purpose card.

The single-purpose card generally with a magnetic chip recording the amount of fund there in is designed to facilitate only one type of transaction e.g telephone calls, public transportation, laundry, parking facilities etc. Here, the distinguishing point is that the issuer and the service provider (acceptor) are identical for the cards. These cards are expected to substitute coins and currency notes. It is important to note that the European Central Bank (ECB) has exempted these single-purpose pre-paid cards from the purview of their policy initiatives on e-money because of their smaller denominations as well as limited risk exposure for customers and the financial system as a whole. The closed-system or the limited-purpose cards are generally used in a small number of well-identified points of sale within a well-identified location such as corporate/university campus. ECB has recommended that these cards be subject to lighter regulations
and be issued by credit institutions. The multipurpose card on the other hand can perform variety of functions with several vendors’ viz., credit card, debit card, stored value card, identifications card, repository of these cards with respect to regulatory oversight, restrictions on issuers and their implications or monetary policy. These cards may reduce demand for current accounts in the bank for likely reduction in transaction costs, and prudent portfolio management.

**Mobile Banking**

Mobile communication devices are revolutionizing banking transactions over wireless networks and the internet to attract and retain customers, banks need to extend their full range of services across a wide range of mobile, wireless devices without having an impact on their current infrastructure and delivery channels it currently supports. Wireless networks, mobile gateways all play an important role in bringing mobile banking strategy to the market.

Now customer bank account is now just a phone call away. Through Phone Banking customer can:

- Check account balance.
- Check the last 5 transactions in customer account.
- Enquire on the cheque status.
- Have a mini statement faxed across to customer.
- Request for a cheque book / Account statement.
- Enquire on your fixed deposits / TDS.
- Open a fixed deposit
- Request for Demand Draft / Managers Cheques.
- Transfer funds amongst customer linked accounts
- Pay utility and HDFC Bank Credit Card bills.
- Do a stop cheque payment.
• Report loss of your ATM /Debit Card.
• Product information.
• Enquire on the interest / Exchange rates.

Phone banking facility is available round the clock, every day, in Mumbai, Delhi, Chennai, Kolkata, Bangalore, Hyderabad, Ahmedabad, Chandigarh and Pune

E-Banking Transactions

The following are E-Banking transactions

Informational website

Informational websites provide customers access to general information about the financial institution and its products or services. Risk issues examiners should consider when reviewing informational websites include

• Potential access to confidential financial institution or customer information if the website is not properly isolated from the financial institution’s internal network;
• Potential liability for spreading viruses and other malicious code to computers communicating with the institution’s website; and
• Negative public perception if the institution’s on-line services are disrupted or if its website is defaced or otherwise presents inappropriate or offensive material.

Translational Website

Transactional websites provide customers with the ability to conduct transactions through the financial institution’s website by initiating banking transactions or buying products and services. Banking transactions can range from something as basic as a retail account balance inquiry to a large business-to-
Since transactional websites typically enable the electronic exchange of confidential customer information and the transfer of funds, services provided through these web sites expose a financial institution to higher risk than basic informational websites. Wholesale-banking systems typically expose financial institutions to the highest risk per transaction, since commercial transactions usually involve larger dollar amounts. In addition to the risk issues associated with informational websites, examiners reviewing transactional e-banking services should consider the following issues:

- Security controls for safeguarding customer information;
- Authentication processes necessary to initially verify the identity of new customers and authenticate existing customers who access e-banking services;
- Liability for unauthorized transactions;
- Losses from fraud if the institution fails to verify the identity of individuals or businesses applying for new accounts or credit on-line;
- Possible violations of laws or regulations pertaining to consumer privacy, anti-money laundering, anti-terrorism, or the content, timing, or delivery of required consumer disclosures; and
- Negative public perception, customer dissatisfaction, and potential liability resulting from failure to process third-party payments as directed or within specified time frames, lack of availability of on-line services, or unauthorized access to confidential customer information during transmission or storage.
Technology in Banking

The introduction of new technologies has radically transformed banking transactions. In the past, customers had to come physically into the bank branch to do banking transactions including transfers, deposits and withdrawals. Banks had to employ several tellers to physically make all those transactions. Automatic Teller Machines (ATMs) were then introduced which allowed people to do their banking on their own, practically anytime and anywhere. This helped the banks cut down on the number of tellers and focus on managing money. The Internet then brought another venue with which customers could do banking, reducing the need for ATMs. Online banking allowed customers to do financial transactions from their PCs at home via Internet.

Now, with the emergence of Wireless Application Protocol (WAP) technology, banks can use the infrastructure and applications developed for the Internet and move it to mobile phones. Now people no longer have to be tied to a desktop PC to do their banking. The WAP interface is much faster and convenient than the Internet, allowing customers to see account details, transaction details, make bill payments, and even check credit card balance.

Payment and Settlement Systems

As part of restructuring of the banking sector, special emphasis has been acceded to improvements in payment and settlement systems. Prominent among the measures initiated in these areas include introduction of Electronic Funds Transfer (EFT), Real Time Gross Settlement System (RTGS), Centralized Funds Management System (CFMS), the NDS and the Structured Financial Messaging Solution (SFMS). The SFMS would be the backbone for all message-based communication over the Indian Financial Network (INFINET)
Electronic Clearing Services (ECS)

ECS (credit clearing) is a mode of payment whereby an institution makes a large number of payments like interest, dividend, salary, pension to a large number of investors/shareholders/employees/ex-employees and can make the payments electronically instead of issuing paper warrants. There is no value limit for making ECS credit payments. ECS credit is becoming very popular for crediting salaries, pensions and vendor payments. ECS credit has received a boost on account of CVC guidelines for prohibiting cash payments, cash transaction tax and also SEBI guidelines on payment of dividends.

Electronic Funds Transfer (EFT)

RBI’s EFT system was a result of the Shere Committee recommendations of 1994. EFT has been defined as the series of transactions beginning with the remitter’s payment order to the remitting branch made for the purpose of making payment to the beneficiary. It has been introduced by RBI to help banks offering their customers, money transfer service from one account of any bank (including same banks) branch, to both inter-city and intra-city. The system is an improvement over the existing system of demand draft, mail transfers etc. as funds are transferred on Second day.

National Electronic Funds Transfer System (NEFT)

National Electronic Funds Transfer System (NEFT) is an account, to account funds transfer facility on the secure Structured Financial Messaging Solution (SFMS) platform available for the networked branches of the banks. NEFT became operational in November 2005. NEFT funds transfers are PKI (Public Key Infrastructure) enabled and hence highly secure. It has three settlements per day at 10:30 am, 1 pm and 3 pm. NEFT at present is available in nearly 40 banks and over 3000 branches of banks and is expected to reach all the
branches which are covered by Real Time Gross Settlement (RTGS). Once NEFT is stabilized, NEFT extended would be launched to reach the branches nearby to the networked branches so that rural facilitation of funds transfers on a T plus 1 basis is possible. NEFT like Real Time Gross Settlement (RTGS) uses the Indian Financial Systems Code (IFSC) for routing purposes. Each branch of the participant banks has a code which is similar to the SWIFT code.

**Cheque Truncation System**

Cheque Truncation means that the physical cheque is scanned at the bank of first deposit (presenting bank) and thereafter the electronic image of the cheque is used by the paying bank to make payment. This system will replace the physical cheques with the electronic images throughout the clearing cycles. The famous quote by Bill Gates that banking is vital to a healthy economy, but banks themselves do not highlight the crucial nature of the electronic forces that are affecting banks, more than any other financial service provider group. This transition of business operations by banks have created new mode of operation called e-banking.

**Real Time Gross Settlement System (RTGS)**

Real time gross settlement systems (RTGS) are funds transfer systems where transfer of money or securities takes place from one bank to another on a "real time" and on "gross" basis. 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 or netting with any other transaction. Once processed, payments are final and irrevocable.
Centralized Funds Management System (CFMS)

The CFMS would enable the funds and treasury managers of commercial banks to obtain the consolidated account-wise, centre-wise position of their balances with all the 17 Deposit Accounts Departments (DAD) of the Reserve Bank. The system has been tested prior to installation and phase-wise implementation commenced from November 2001. The CFMS would enable better funds management by constituent current account holders of the Reserve Bank.

Structured Financial Messaging Solution (SFMS)

At the base of all inter-bank message transfers using the INFINET is the SFMS. SFMS would serve as a safe, secure communication carrier built with templates for transmission of intra and inter-bank messages in fixed message formats, which would facilitate "Straight Through Processing". SFMS comprises the central server in the form of a hub located at the Institute for Development and Research in Banking Technology (IDRBT), Hyderabad and individual bank gateways to which the branches of the banks would be connected with a provision for banks to have multiple bank level gateways. The SFMS would provide for all inter-bank transactions to be stored and switched at the central hub, while intra-bank messages will be switched and stored by the bank gateway. Adequate security in the form of smart card authentication apart from the Public Key Infrastructure (PKI) would be an integral part of the SFMS. All these would result in the security levels matching those of international standards.

Indian Financial Network (INFINET)

The Indian Financial Network [INFINET] is the communication backbone for the Indian Banking and Financial Sector. All Banks, Public Sector, Private Sector, Cooperative, etc., and the premier Financial Institutions in the country are eligible to become members of the INFINET. The INFINET is a Closed User
Group [CUG] Network for the exclusive use of member banks and financial institutions. The communication backbone is based on IP VPN Layer 3 Network with full mesh VPN network. Presently, the network is spread across 300 cities in India.

Recent Trends in Banking Industry of India

The economy can be divided in the entire spectrum of economic activity into the real and monetary sectors. The real sector is where production takes place while the monetary sector supports this production and in a way is the means to the end. People know and accept the financial system is critical to the working of the rest of the economy. In fact, the Asian crisis of the nineties, or for that matter what happened in Latin America and Russia subsequently and also Dubai Crisis have shown how a fragile financial sector can wreak havoc on the rest of the economy. Therefore the banking sector is crucial and customers want to express their views to explore how this sector can work in harmony with the real sector to achieve the desired objectives.

The banking sector has been immensely benefited from the implementation of superior technology during the recent past, almost in every nation in the world. Productivity enhancement, innovative products, speedy transactions, seamless transfer of funds, real time information system, and efficient risk management are some of the advantage derived through the technology. Information technology has also improved the efficiency and robustness of business processes across banking sector.

India's banking sector has made rapid strides in reforming and aligning itself to the new competitive business environment. Indian banking industry is the midst of an IT revolution. Technological infrastructure has become an
indispensable part of the reforms process in the banking system, with the gradual development of sophisticated instruments and innovations in market practices.

**IT in Banking**

Indian banking industry, today is in the midst of an IT revolution. A combination of regulatory and competitive reasons has led to increasing importance of total banking automation in the Indian Banking Industry. Information Technology has basically been used under two different avenues in Banking. One is Communication and Connectivity and other is Business Process Reengineering. Information technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets.

The bank which used the right technology to supply timely information will see productivity increase and thereby gain a competitive edge. To compete in an economy which is opening up, it is imperative for the Indian Banks to observe the latest technology and modify it to suit their environment. Not only banks need greatly enhanced use of technology to the customer friendly, efficient and competitive existing services and business, they also need technology for providing newer products and newer forms of services in an increasingly dynamic and globalize environment. Information technology offers a chance for banks to build new systems that address a wide range of customer needs including many that may not be imaginable today.

**Emerging Issues**

The following issues are emerging in IT era

1. Awareness regarding New Technology in Banks
2. High cost in E-banks

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3. Customers Confidence in e-channels
4. Hesitance aspect to use e-channels
5. To acquaint the bank customers with global bank technology
6. Capturing rural & semi urban population
7. Marketing with e-channels
8. Changing customer profile
9. Proper location of ATMs, mobile ATMs
10. Lack of IT experts.
11. Creation of proper IT related infrastructure.

**Responsibilities of Banks in IT Era**

The responsibilities of Indian banking sector in the information technology era are;

1. Banks should give demo regarding the use of e-channels and e-banking facilities by all the banks.
2. Fee charges should be transparent,
3. Win customers confidence
4. Capture rural & semi urban bank customers
5. Software in regional language
6. Spread facility of mobile banks
7. Efficient and expert IT staff in banks
8. Maximum marketing with e-channels
9. Increase in expenditure on R & D
10. Banking with smiling face
11. Spread Customer Relations Management
12. Spread social relationship marketing
Future Area of Intensive Research

The following are the future area of intensive research should be made by the Indian banking sector in the years to come.

1. Quality of services in partially IT and fully IT oriented banks
2. E-banks & utility services
3. Occupation wise, age wise use of e-channels
4. e-channels & per transaction cost
5.Extent of acceptance of e-channels

E-Banking Practices of the Study Unit

The e-banking practices of the study units practiced by the study units in the study area are given below.

Profile of the State Bank of India

The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806. Three years later the bank received its charter and was re-designed as the Bank of Bengal (2 January 1809). A unique institution, it was the first joint-stock bank of British India sponsored by the Government of Bengal. The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal. These three banks remained at the apex of modern banking in India till their amalgamation as the Imperial Bank of India on 27 January 1921, later it became State Bank of India.

Transformation Journey in State Bank of India

The State Bank of India, the country’s oldest Bank and a premier in terms of balance sheet size, number of branches, market capitalization and profits is today going through a momentous phase of Change and Transformation – the two
hundred year old Public sector behemoth is today stirring out of its Public Sector legacy and moving with an agility to give the Private and Foreign Banks a run for their money.

The bank is entering into many new businesses with strategic tie ups – Pension Funds, General Insurance, Custodial Services, Private Equity, Mobile Banking, Point of Sale Merchant Acquisition, Advisory Services, structured products etc – each one of these initiatives having a huge potential for growth.

The Bank is forging ahead with cutting edge technology and innovative new banking models, to expand its Rural Banking base, looking at the vast untapped potential in the hinterland and proposes to cover 100,000 villages in the next two years.

It is also focusing at the top end of the market, on whole sale banking capabilities to provide India’s growing mid/large Corporate with a complete array of products and services. It is consolidating its global treasury operations and entering into structured products and derivative instruments. Today, the Bank is the largest provider of infrastructure debt and the largest arranger of external commercial borrowings in the country. It is the only Indian bank to feature in the Fortune 500 list.

The Bank is changing outdated front and back end processes to modern customer friendly processes to help improve the total customer experience. With about 8500 of its own 10000 branches and another 5100 branches of its Associate Banks already networked, today it offers the largest banking network to the Indian customer. The Bank is also in the process of providing complete payment solution
to its clientele with its over 21000 ATMs, and other electronic channels such as Internet banking, debit cards, mobile banking, etc.

**E-Banking Services**

The SBI offers various e-banking services to its customers. Some of the major e-banking services offered by the SBI are:

Bank offers Real Time Gross Settlement System (RTGS) & National Electronic Fund Transfer system (NEFT) which enables an efficient, secure, economical and reliable system of transfer of funds from bank to bank as well as from remitter’s account in a particular bank to the beneficiary’s account in another bank across the country.

**RTGS**

An electronic payment system in which payment instructions between banks are processed and settled individually and continuously, on a real time basis, throughout the day. Available for transaction value of Rs.2.00 lacs and above.

**NEFT**

Another electronic payment system in which payment instructions between banks are processed and settled on deferred net settlement (DNS) basis at fixed times during the day. There is no minimum or maximum stipulated transaction value for using this facility. RTGS and NEFT systems work on all days except on Sundays and common National Holidays across the states. These facilities are available at all our Core Banking branches.

**State Bank Networked ATM Services**

State Bank offers the customers the convenience of over 26,000 ATMs in India, the largest network in the country and continuing to expand fast. This means
that customer can transact free of cost at the ATMs of State Bank Group (This includes the ATMs of State Bank of India as well as the Associate Banks - namely, State Bank of Bikaner & Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala, and State Bank of Travancore) and wholly owned subsidiary viz. SBI Commercial and International Bank Ltd., using the State Bank ATM-cum-Debit (Cash Plus) card.

**Kinds of Cards Accepted at State Bank ATMs**

Besides all cards of State Bank of India, State Bank ATM-Cum-Debit Card and State Bank International ATM-Cum-Debit Cards following cards are also accepted at State Bank ATMs:

1. State Bank Credit Card
2. Cards issued by other banks displaying Maestro, Master Card, Cirrus, VISA and VISA Electron logos
3. All Debit/ Credit Cards issued by any bank outside India displaying Maestro, Master Card, Cirrus, VISA and VISA Electron logos

**State Bank ATM-cum-Debit (State Bank Cash plus) Card:**

India's largest bank is proud to offer customer unparalleled convenience viz. State Bank ATM-cum-Debit (Cash Plus) card. With this card, there is no need to carry cash in your wallet. Customer can now withdraw cash and make purchases anytime you wish to with your ATM-cum-Debit Card.

**Features**

1. Withdraw cash from over 26,000 ATMs of SBI group free and about 40000 ATMs of other banks under multi-lateral sharing viz. Andhra Bank, Axis Bank, Bank of India, The Bank of Rajasthan Ltd. Canara Bank, Corporation Bank, Dena Bank, HDFC Bank, ICICI Bank, Indian Bank,
IndusInd Bank, Punjab National Bank, UCO Bank and Union Bank of India apart from ATMs displaying Master Card/ Maestro/Cirrus logo for free up to first 5 transactions (Financial and Non-Financial) in a calendar month (for SB account holders).

2. Make payments for purchases by using the debit card at more than 4 lakh shops, restaurants, shopping malls, hotels, petrol pumps and many other outlets which display Maestro logo.

3. Recharge pre-paid mobile phones of Vodafone, IDEA, Reliance and BPL without any charges at any State Bank ATM.


**Fees**

There is no joining fee for State Bank ATM-cum-Debit (Cash Plus) card. Annual maintenance fee of Rs. 50/- p.a. will be recovered from the second year of issue.

**State Bank Cash Plus International Card**

This is an International ATM-cum-Debit Card with which customer can enjoy shopping at over 4 lakh establishments in India and over 10.5 Million establishments worldwide displaying Maestro logo, wherein the amount customers spend on their card is automatically debited to customer account. Withdraw cash from over 26,000 ATMs of SBI group free of other banks from ATMs displaying Master Card/ Maestro / Cirrus logo in India and more than 8,20,000 ATMs across the globe for a nominal fee. In India, it would function as the State Bank ATM-cum-Debit (Cash Plus) card.

Transaction Costs: - Free
Fees

The State Bank Cash Plus International Card is available for one time joining fee of Rs 200/-. Annual maintenance fee of Rs. 100/- p.a. will be recovered from the second year of issue.

State Bank International ATM-Cum-Debit Card

Eligibility

All Saving Bank and Current Account holders having accounts with networked branches and are:

- 18 years of age & above
- Account type: Sole or Joint with "Either or Survivor" / "Anyone or Survivor"
- NRE account holders are also eligible but NRO account holders are not.

Benefits

- Convenience to the customers traveling overseas
- Can be used as Domestic ATM-cum-Debit Card
- Available at a nominal joining fee of Rs. 200/-
- Daily limit of US $ 1000 or equivalent at the ATM and US $ 1000 or equivalent at Point of Sale (POS) terminal for debit transaction
- Purchase Protection*up to Rs. 5000/- and Personal Accident cover up to Rs. 2,00,000/-
- Charges for usage abroad: Rs. 150+ Service Tax per cash withdrawal Rs. 15 + Service Tax per enquiry.

State Bank Classic Debit & Shopping Card

Enjoy the convenience of cashless shopping with State Bank Classic Debit & Shopping Card and earn Freedom Rewards points on customer purchases. With
State Bank Classic Debit & Shopping Card customers get access to their account whenever and wherever they want. Customer can use it to purchase goods merchant establishments and withdraw cash in India.

**State Bank Gold International Debit Card**

Enjoy the convenience of cashless shopping with State Bank Gold International Debit Card and earn higher Freedom Rewards points on purchases. With your State Bank Gold international Debit Card customers get access to their account whenever and wherever they want. Customer can use it to purchase goods merchant establishments and withdraw cash in India as well as across the globe.

**SBI Yuva Card**

SBI Yuva Card is an International Debit Card on VISA platform, exclusively designed for vibrant youth of India between 18-30 years of Age. The card can be used at ATMs for cash withdrawal at all ATMs under bilateral arrangement. It can be used for dining, shopping and traveling at POS/MEs. This Card is available in all SBI branches free of cost. Customer can not only draw cash at ATM but also swipe it for. This card is PIN based on ATM and signature based at POS/MEs. This card can ‘be used for e-commerce i.e. for shopping through internet by using VbV (Verified by VISA) certified internet websites. Funds can also be transferred using VISA Monet Transfer facility. Using our ATMs, card holder can also transfer funds to other VISA Debit/ Credit Cards issued by SBI or any other Bank.
Table 3.1
BRANCHES AND ATMs OF STATE BANK OF INDIA

<table>
<thead>
<tr>
<th>Rural</th>
<th>Semi-Urban</th>
<th>Urban</th>
<th>Metropolitan</th>
<th>Total</th>
<th>On-site</th>
<th>Off-site</th>
<th>Total</th>
<th>Per cent of offsite to total ATMs</th>
<th>Per cent of ATMs to Branches</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,972</td>
<td>3,865</td>
<td>2,382</td>
<td>2,065</td>
<td>13,284</td>
<td>10,826</td>
<td>9,258</td>
<td>20,084</td>
<td>46.1</td>
<td>151.2</td>
</tr>
</tbody>
</table>

Source: Report on Trend and Progress of Banking in India

Table 3.1 depicts the branches and ATMs of State Bank of India. Among the Nationalised Banks in India, State Bank of India having largest number of branches. From the above table, we can understand State Bank of India concentrates rural areas than Semi-urban and urban areas. ATMs percent may be doubled in the forthcoming years.

**Pre-Paid Card**

**State Bank Gift Card**

Presenting Gifts to Employees and also to near and dear ones during festive season or on special occasions is an integral and unique culture in India. Traditionally, gifts have been given in the form of cash or kind. With the advancement of Banking, Gift Cheques were introduced, allowing the beneficiary to use the money according to their wishes. These cheques, however, are accepted at the issuing bank branches only. The SBI Gift Card, issued in association with VISA International, is one such product which gives the comfort of convenience and wide acceptability.

SBI Gift Card is a Pre-paid Plastic Card supported by Magnetic-stripe based technology. It is usable at all VISA enabled Merchant Establishments at PoS.
by signature. It is a perfect substitute for Gift Vouchers sold by many retail houses as its use is not restricted to any particular Merchant Establishment/ Point of Sale.

**State Bank Ez Pay Card**

The SBI eZ-Pay card, a prepaid plastic card issued in Indian Rupees in association with VISA international, is an ideal product for making periodical payments. Payment of salaries to employees, who are required to work at different locations, is generally a difficult proposition for Employers. Cards can be loaded from a single point and the funds are available to the employees immediately. It is suitable for disbursement of wages to blue collar workers, bonus to employees/reimbursement of expenses to staff, periodical payment of incentives to agents/commission to distributors.

One need not be an SBI account holder for purchasing SBI eZ-Pay Card. Any person, in individual capacity also, can obtain eZ-Pay card. The SBI eZ-Pay card is usable at all State Bank ATMs through PIN and at Merchant establishments/ Point of Sale through PIN/ Signature. The cardholder need not visit any Branch to withdraw his money. Balance enquiry can be made free of charge either through State Bank ATMs or through Internet.

**State Bank Vishwa Yatra Foreign Travel Card**

State Bank Vishwa Yatra Foreign Travel Card is a prepaid Foreign Currency card that makes customers foreign trip trouble-free and convenient. It is a Chip based Card which stores encrypted and confidential information. It offers customers a convenient and secure way to carry cash anywhere in the world (valid worldwide except in India, Nepal and Bhutan). State Bank Vishwa Yatra Foreign Travel Card is available in seven Foreign Currencies viz. US Dollars (USD),
Pound Sterling (GBP), Euro (EUR), Canadian Dollar (CAD), Australian Dollar (AUD), Japanese Yen (YEN), Saudi Riyal (SAR) and Singapore Dollar (SGD).

**Internet Banking**

The Internet banking portal of SBI, enables its retail banking customers to operate their accounts from anywhere anytime, removing the restrictions imposed by geography and time. It's a platform that enables the customers to carry out their banking activities from their desktop, aided by the power and convenience of the Internet.

Using Internet banking services, customer can do the following normal banking transactions online:

- Funds transfer between own accounts.
- Third party transfers to accounts maintained at any branch of SBI
- Group Transfers to accounts in State Bank Group
- Inter Bank Transfers to accounts with other Banks
- Online standing instructions for periodical transfer for the above
- Credit PPF accounts across branches
- Request for Issue of Demand Draft
- Request for opening of new accounts
- Request for closure of Loan Accounts
- Request for Issue of Cheque Book

Apart from these, the other salient value-added features available are:

- Utility bill payments
- Online Ticket Booking for travel by Road, Rail and Air
- SBILIFE, LIC and other insurance premium payments
- SBI and other Mutual funds Investments
• SBI and other Credit Card dues payments
• Tax Payment – Income, Service, State Government
• Customs Duty Payment
• Online Share Trading (eZ-trade@SBI)
• Online Application for IPO
• Fee Payment to select educational institutions including IITs and NITs

Truly smart services to cover most of customer banking transactions. All this and much more, from the customer desktop. All SBI branches are enabled for Internet Banking.

E-Rail
Booking the customers Railways Ticket Online

The facility has been launched with effect from 1st September 2003 in association with IRCTC. The scheme facilitates Booking of Railways Ticket Online. The salient features of the scheme are as under:

1. All Internet banking customers can use the facility.
2. Customers are required to register on www.irctc.co.in. Customer can select their train depending on their journey and book their ticket online.
3. On giving payment option as SBI, the user will be redirected to onlinesbi.com. After logging on to the site you will be displayed payment amount, TID No. and Railway reference no.
4. On selecting the payment amount customer account will be debited. Customer will return to www.irctc.co.in. The ticket with PNR No. will be displayed. Customer can print the ticket.
5. The ticket can be delivered or collected by the customer.
6. The user can collect the ticket personally at New Delhi reservation counter.
7. The Payment amount will include ticket fare including reservation charges, courier charges and Bank Service fee of Rs 10/.

8. For cancellation, the ticket to be presented over reservation counter.

9. No cash will be paid at the time of cancellation. Only cancellation ticket will be issued. Customer account will be credited after 4 days.

10. SBI shall not be responsible for any delays or disputes regarding tickets.

**RBI- EFT**

Inter-bank Electronic Funds Transfer facility of the Reserve Bank of India (RBI - EFT) is available with SBI branches in the clearing zone of Service Branches at Kolkata, Mumbai, New Delhi and Chennai.

**E-Pay**

Bill Payment (e-Pay) will let customer to pay their Telephone, Mobile, Electricity, Insurance and Credit Card bills electronically over SBI Online SBI website. Check & Pay customer bills online, 24 hours a day, over e-Pay. Customer even gets a Cyber Receipt for customer payments done online or scheduled over online SBI.

If customer biller presents bills online, customer can also give SBI Auto Pay instructions and bank will pay the bills as and when it falls due. The service is available for select local billers at Ahmedabad, Bangalore, Bhopal, Bhubaneshwar, Chandigarh, Chennai, Delhi, Guwahati, Hyderabad, Kolkata, Lucknow, Mumbai, Agra, Thiruvananthapuram. The national billers like LIC, SBI Cards, SBI Life Insurance etc. can be paid at any center across the country.

**Broking Services**

SBI announced that SBI Capital Markets Ltd. has expanded its retail broking network to help investors carry out their broking transactions with
confidence. At present the investors can buy/sell shares at both NSE and BSE through their Retail Broking Centres in the cash market.

**Magnetic Ink Character Recognition (MICR)**

In MICR technology the information is printed on the instrument with a special type of ink which is made up of magnetic material. On insertion of the instrument in the machine, the printed information is read by the machine. MICR system is beneficial as it minimizes chances of error, clearing of cheques becomes easy and transfer of funds becomes faster in order to facilitate operations.

**Mobile Banking**

Away from home, balance enquiries can be made and/or money sent to the loved ones or bills can be paid anytime 24x7. Mobile banking offers convenient, simple, secure, anytime and anywhere banking.

The following functionalities are available:

1. Funds transfer (within and outside the bank)
2. Interbank Mobile Payment Services (IMPS)
3. Enquiry services (Balance enquiry/ Mini statement)
4. Cheque book request
5. Demat Enquiry Service
6. Bill Payment (Utility bills, credit cards, Insurance premium), Donations, Subscriptions
7. Mobile Top up-M Commerce (Top up of Tatasky, BigTV, SunDirect, DishTV, DigitalTV and Videocon d2h connections, SBI life insurance premium)
Book Airline/ Railway/ Bus/ Movie Tickets and Shop from Mobile

Now customers can book airline/ rail/ bus/ movie tickets and also shop online from their mobile phone using State Bank Freedom through NGPAY application. NGPAY application works on all java enabled phone having GPRS connectivity. NGPAY offers a wide range of services with its merchant partners. The facilities available are entertainment, travel, online shopping, etc.

Demat Services

SBI offers Demat services that would ensure free transferability of securities with speed, accuracy and security. SBI is Depository Participant both with - National Securities Depositories Limited (NSDL) and Central Depository Services Limited (CDSL) through more than 1000 branches -

Features & Benefits

As opposed to the earlier form of dealing in physical certificates with delays in transaction, holding and trading in Demat form has the following benefits:

2. Dematerialization: Facilitates converting physical share certificate into electronic balances.
3. Rematerialization: Facilitates converting the electronic balances to physical (share certificate) form.
5. Pledge/Hypothecation: Facilitates blocking securities balance of borrowers in favour of lenders for obtaining Loans / advances against shares.
6. Initial Public offer: Facilitates faster and direct credit of security balances into DP account on allotment through public issue of companies.

7. Disbursement of corporate benefits: Facilitates faster and direct credit of security balance into DP account on account of non-monetary corporate benefits as bonus and rights issues.

8. Security Lending: Facilitates earning extra income on your dematerialized holdings by the way of securities lending.

9. In fact what makes scripless holding in SBI DP account most attractive is the total ease of operation.

10. Once customers open their account, they can easily convert their physical holdings to paperless form by surrendering their share certificate together with a Demat request form. Thereafter, on selling / purchasing securities, customer only need to give an appropriate instruction to effect settlement.

E-Banking Services of ICICI Bank

Profile of the Bank

ICICI Bank was originally promoted in 1994 by ICICI Limited, an Indian financial institution, and was its wholly-owned subsidiary. ICICI's shareholding in ICICI Bank was reduced to 46% through a public offering of shares in India in fiscal 1998, an equity offering in the form of ADRs listed on the NYSE in fiscal 2000, ICICI Bank's acquisition of Bank of Madura Limited in an all-stock amalgamation in fiscal 2001, and secondary market sales by ICICI to institutional investors in fiscal 2001 and fiscal 2002. ICICI was formed in 1955 at the initiative of the World Bank, the Government of India and representatives of Indian industry. The principal objective was to create a development financial institution for providing medium-term and long-term project financing to Indian businesses.
In the 1990s, ICICI transformed its business from a development financial institution offering only project finance to a diversified financial services group offering a wide variety of products and services, both directly and through a number of subsidiaries and affiliates like ICICI Bank. In 1999, ICICI become the first Indian company and the first bank or financial institution from non-Japan Asia to be listed on the NYSE.

After consideration of various corporate structuring alternatives in the context of the emerging competitive scenario in the Indian banking industry, and the move towards universal banking, the managements of ICICI and ICICI Bank formed the view that the merger of ICICI with ICICI Bank would be the optimal strategic alternative for both entities, and would create the optimal legal structure for the ICICI group's universal banking strategy. The merger would enhance value for ICICI shareholders through the merged entity's access to low-cost deposits, greater opportunities for earning fee-based income and the ability to participate in the payments system and provide transaction-banking services. The merger would enhance value for ICICI Bank shareholders through a large capital base and scale of operations, seamless access to ICICI's strong corporate relationships built up over five decades, entry into new business segments, higher market share in various business segments, particularly fee-based services, and access to the vast talent pool of ICICI and its subsidiaries.

ICICI Bank is India's second-largest bank with total assets of Rs. 4,062.34 billion (US$ 91 billion) at March 31, 2011 and profit after tax Rs. 51.51 billion (US$ 1,155 million) for the year ended March 31, 2011. The Bank has a network of 2,546 branches and 7,440 ATMs in India, and has a presence in 19 countries, including India.
ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and through its specialized subsidiaries in the areas of investment banking, life and non-life insurance, venture capital and asset management.

E-Banking Services

The major e-banking services offered by the ICICI Bank limited are:

Internet Banking

The Internet banking services is available to the following type of ICICI Bank account holders: Savings Account holders, Credit Card holders, Demat Account holders, Loan Account holders, Joint account holders can also apply for the ICICI bank internet banking services by submitting the filled-up Internet Banking Form at any ICICI Bank Branch.

Online Banking Services

The customer no need of walking up to the bank branch, every time customer needs to do their banking. As customer can do a lot of it online from paying customers bills to transferring funds, booking your rail/air tickets, shopping, sending a money order and doing lots more.

Funds Transfer (e-cheques)

With ICICIBank.com, transferring funds from your ICICI Bank Account is very simple. There are various options provided online for transferring funds. customer can choose to: transfer Funds to their own linked ICICI Bank accounts, transfer of funds to other ICICI bank accounts anywhere in India and transfer funds to specified non-ICICI bank accounts. With Funds Transfer on ICICIBank.com, customer can; forget about writing out & sending cheques/ DD's or pay orders to the payee, free themself from the worry of payment instruments getting
lost/misplaced in transit, transact from the comfort of customers home or office through ICICI Bank Internet Banking, transfer money to any ICICI Bank account, anywhere in India, and transfer money to specified non-ICICI Bank accounts in over 100 cities across India.

With Funds Transfer on iMobile, ICICI Bank iMobile application users can now make financial transactions of up to Rs.50,000 per day for funds transfer, bill pay and mShop. This is accordance to the new Mobile Banking guidelines issued by Reserve Bank of India.

Transfer funds to customer own linked ICICI Bank accounts
Transfer funds instantly between any of your ICICI Bank accounts that are linked to customer Internet Banking User ID. Transfer funds to specified Non-ICICI Bank accounts customer can transfer funds to other bank accounts across India to any bank which is enabled with IFSC codes. The maximum amount for NEFT transactions is Rs 500,000.

Bill pay
To pay customer bills through the Bill Pay facility, customer need to do is to complete a simple one time registration for each biller. No more entering billing details every time customer pays their bills. ICICI Bank offer to customer this facility in two modes depending on the biller:

Quick Pay
ICICI Bank Quick Pay is the easiest and smartest way to manage and pay customer utility bills online anytime, anywhere. Customer can make all their bill payments from the convenience of their home/office with Quick Pay.
Receive Funds

Customers often transfer money from non-ICICI Bank accounts to your accounts with ICICI Bank through Cheques, Demand Drafts, Money Orders or Pay Orders. The bank offer a unique solution, Receive Funds, which allows customer to transfer funds into their ICICI Bank account whenever they want. Customer could also choose to set standing instructions for recurring transfer. Register a payer once and place a request for receiving funds. It is a simple, one-time process.

Online Prepaid Mobile Recharge

Customer can recharge prepaid mobile from the comfort of their home or office, anytime, anywhere with Prepaid Mobile Recharge Facility on ICICIBank.com. Now customer no longer needs to rush to the vendor for buying recharge codes, every time your talk time runs out. Just top-up customer prepaid mobile cards by logging in to Internet Banking on ICICIBank.com. What's more, this service is absolutely free for all ICICI Bank Account holders.

Book ticket online

With ICICI Bank customer need not visit booking reservation centers any more. Customer can now buy their train tickets online and pay using ICICI Internet Banking Facility. For this ICICI Bank has tied up with IRCTC. All internet banking customers can use this facility. No cash is paid at the time of cancellation. Customer bank account will be credited with the ticket amount less cancellation charges as levied by IRCTC. ICICI Bank does not levy any cancellation charges.

Pay Any Visa Credit Card

Pay Any Visa Credit Card is a revolutionary service that allows customer to transfer money from their bank account to any other Visa Credit Card, anytime, anywhere in India. Customer can forget cumbersome and time-consuming DDs,
cheques and pay orders. Transact from the comfort of home or office through ICICI Bank Internet Banking.

**Mobile Banking**

iMobile is ICICI Bank's mobile banking application. Easy, convenient and secure to use, iMobile lets customer transfer funds, pay bills, book travel or movie tickets, recharge prepaid mobile and DTH, locate an ATM, and a do lot more.

**Pay Direct Tax and Indirect Tax Online:**

Customer can pay their Direct / Indirect Tax through online banking services. Customers log in to download Direct/Indirect Tax payment acknowledgment for last three months of payments made through ICICIBank.com from eTax challan link in Bank Accounts section.

**Smart Money Order**

ICICI Bank's Smart Money Order allows customer to send money anytime, anywhere in India. Simply log on to ICICIBank.com and enter the address of the receiver and the amount to be sent. The funds will be delivered to beneficiary's doorstep. ICICI Bank's Smart Money Order facility has been launched in partnership with India Post (The Department of Posts, Ministry of Communication and Information Technology, Government of India).

**Donate Online**

ICICI Bank now provides customer the facility to make a difference to India's underprivileged - online, anytime, from anywhere. Choose from over 140 NGOs that have met high standards of credibility. When customer use Give India’s online donation platform and complete their donation, customer will immediately receive a receipt from Give India, which can be used for tax purposes.
Debit and Credit Card

Through ICICI debit and credit cards customer can shop, dine, travel, pay bills directly anywhere in India with their ICICI Bank Debit and credit Card and free themselves from the worries of standing in long queues for ATMs.

Master Card World debit card

ICICI introduced the 'ICICI Bank MasterCard World debit card', which comes packed with comforts and conveniences. ICICI Bank World chip debit card will entitle customer to a number of 'special discounts and conveniences and rewards' like never before. ICICI Bank MasterCard World debit card benefits:
High withdrawal limit and transaction limit. Enjoy a high cash withdrawal limit of Rs.1 Lac per day and transaction limit of Rs. 2 Lac per day.

Titanium Debit Card

ICICI Bank Titanium Debit Card packed with a host of benefits and special privileges. Having this card in their wallet is like carrying bank account with customer wherever they go. Enjoy unrestricted shopping, savings with special discounts, higher reward points earnings and the complete security of not having to carry large amounts of cash around with customers.

Business Debit Card

ICICI Bank Business Debit Card, packed with a host of benefits and special privileges. With this card customer enjoy unrestricted shopping, savings with special discounts, higher ‘Reward Points’ earnings and the complete security of not having to carry large amounts of cash with customer.
**Woman's Debit Card**

A Debit Card specially designed for the woman of today. Packed with conveniences every woman will cherish. Avail attractive discounts for shopping, dining and more. Customer can enjoy high withdrawal limit & transaction limit, cash withdrawal limit of Rs.25,000 per day and POS transaction limit (w.e.f. October 1, 2011) of Rs.35,000 per day.

**HPCL Debit Card**

ICICI Bank and HPCL bring to customer the HPCL Debit Card - a debit card designed with customer convenience in mind. Customer can simply hand it over at any HPCL pump and save fuel purchases. In fact customer can use the card for all shopping, dining and travelling needs; so, customer spend with total control. In addition the ICICI bank issued various credit cards with varying feature for the benefits of its customers, they are ICICI Bank VISA Signature Credit Card, ICICI Bank Ascent American Express Credit Card, ICICI Bank Platinum Identity Credit Card, CICI Bank British Airways Premium Credit Card Account, ICICI Bank British Airways Classic Credit Card Account, ICICI Bank Singapore Airlines VISA Platinum Credit Card, ICICI Bank Instant Platinum Credit Card, ICICI Bank Instant Gold Credit Card, ICICI Bank HPCL Platinum Credit Card, ICICI Bank HPCL Titanium Credit Card, ICICI Bank Kingfisher Airlines MasterCard Titanium Credit Card, ICICI Bank Kingfisher Airlines MasterCard Platinum Credit Card and ICICI Bank Kingfisher Airlines MasterCard World Credit Card.

**Demat**

ICICI Bank Demat Services boasts of an ever-growing customer base of over 16.83 lacs customer base as on 10.02.11 account holders. In ICICI continuous endeavor to offer best of the class services to its customers the bank offer the following features:
E-Instructions: customer can transfer securities 24 hours a day, 7 days a week through Internet & Interactive Voice Response (IVR) at a lower cost. Now with “Speak to transfer”, customer can also transfer or pledge instructions through the bank customer care officer. Corporate Benefit Tracking: Track customer dividend, interest, bonus through customer account statement. Mobile Request: Access customers demat account by sending SMS to enquire about Holdings, Transactions, Bill & ISIN details. Mobile Alerts: Receive SMS alerts for all debits/credits as well as for any request which cannot be processed. Dedicated customer care executives specially trained at bank call centre, to handle all customer queries. Countrywide network of over 970 branches, customers are never far from an ICICI Bank Demat Services outlet.

### Table 3.2

<table>
<thead>
<tr>
<th></th>
<th>Branches</th>
<th>ATMs</th>
<th>Per cent of offsite to total ATMS</th>
<th>Per cent of ATMs to Branches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Semi-Urban</td>
<td>Urban</td>
<td>Metropolitan</td>
<td>Total</td>
</tr>
<tr>
<td>Urban</td>
<td>260</td>
<td>803</td>
<td>693</td>
<td>767</td>
</tr>
<tr>
<td>Metropolitan</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: Report on Trend and Progress of Banking in India

From the table 3.2, we can be inferred the association of ATMs and Branches of ICICI Bank. It has large number of branches in semi-urban areas compare to rural, urban and metropolitan areas.

**CONCLUSION**

E-banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Today, the click of the mouse offers customers banking services at a much lower cost and also empowers them with
unprecedented freedom in choosing vendors for their financial service needs. No country today has a choice—whether to implement E-banking or not given the global and competitive nature of the economy. Banks have to upgrade and constantly think of new innovative customized packages and services to remain competitive. The invasion of banking by technology has created an information age and commoditization of banking services.

Banks have come to realize that survival in the new e-economy depends on delivering some or all of their banking services on the Internet while continuing to support their traditional infrastructure. The rise of E-banking is redefining business relationships and the most successful banks will be those that can truly strengthen their relationship with their customers. Without any doubt, the international scope of E-banking provides new growth perspectives and Internet business is a catalyst for new technologies and new business processes. With rapid advances in telecommunication systems and digital technology, E-banking has become a strategic weapon for banks to remain profitable.