

Satisfaction from E-Banking Services of ICICI bank

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EXECUTIVE SUMMARY

My project aims at Comparative study on Customer Perception Towards E-banking With Respect to ICICI Bank. In this research study 150 respondents from both the Banks were taken, After analyzing the results of the questionnaire we conclude that even now a days banks are providing innovative services day by day, but still there are a lot of customers who are even not aware about these services, the usage of these service s is a different issue, Today Banks are using huge amount of funds to provide differentiate services to their customers from their competitors like by using new software or by providing new innovative services like internet banking, mobile banking, and many others but still they are focusing only to provide the innovative services to the customers not focusing too aware them regarding these services and also there is a need to aware the customers about the use and benefits to the services provided by the bank, because it's the way to get competitive advantage, as per as we all know that today most of the organizations are focusing on the promotion- element of marketing mix, which is providing financial as well as non financial benefits like Brand image, so these Banks is not focusing over this element, Majority of the respondent in Bank have savings account with banks. The facility that was avail d by most of the people at these Banks was that of ATM/Debit Cards. The most important channel that aware customer most regarding the innovative services is family& friends.

CHAPTER – 1

INTRODUCTION TO INDUSTRY

The first banks were probably the religious temples of the ancient world, and were probably established in the third millennium B.C. Banks probably predated the invention of money. Deposits initially consisted of grain and later other goods including cattle, agricultural implements, and eventually precious metals such as gold, in the form of easy-to-carry compressed plates. Temples and palaces were the safest places to store gold as they were constantly attended and well built. As sacred places, temples presented an extra deterrent to would-be thieves. There are extant records of loans from the 18th century BC in Babylon that were made by temple priests/monks to merchants.

By the time of Hammurabi's Code, banking was well enough developed to justify the promulgation of laws governing banking operations. Ancient Greece holds further evidence of banking. Greek temples, as well as private and civic entities, conducted financial transactions such as loans, deposits, currency exchange, and validation of coinage. There is evidence too of credit, whereby in return for a payment from a client, a moneylender in one Greek port would write a credit note for the client who could "cash" the note in another city, saving the client the danger of carting coinage with him on his journey. Pythius, who operated as a merchant banker throughout Asia Minor at the beginning of the 5th century B.C., is the first individual banker of whom we have records. Many of the early bankers in Greek city-states were –metics or foreign residents. Around 371 B.C., Passion, a slave, became the wealthiest and most famous Greek banker, gaining his freedom and Athenian citizenship in the process. The fourth century B.C. saw increased use of credit-based banking in the Mediterranean world. In Egypt, from early times, grain had been used as a form of money in addition to precious metals, and state granaries functioned as banks. When Egypt fell under the rule of a Greek dynasty, the Ptolemies (332-30 B.C.), the numerous scattered government granaries were transformed into a network of grain banks, centralized in Alexandria where the main accounts from all the state granary banks were recorded. This banking network functioned as a trade credit system in which payments were effected by transfer from one account to another without money passing. In the late third century B.C., the barren Aegean island of Delos, known for its magnificent harbor and famous temple of

Apollo, became a prominent banking center. As in Egypt, real credit receipts replaced cash transactions and payments were made based on simple instructions with accounts kept for each client. With the defeat of its main rivals, Carthage and Corinth, by the Romans, the importance of Delos increased. Consequently, it was natural that the bank of Delos should become the model most closely imitated by the banks of Rome.

Christ drives the Usurers out of the Temple, a woodcut by Lucas Cranach the Elder in *Passionary of Christ and Antichrist*.

Banking during Roman times was not as we understand banking in modern times. During the Participate, the majority of banking activities were conducted by private individuals, and not by large banking corporations that exist today. Money lending not only allowed for those people who needed money to have access to it, but that through direct transference between bankers, the actual usage of currency was not needed because it could be done purely through financial intermediation. Large investments were conducted and financed by the federators (trans. financier), whilst those that worked professionally in the money business and were recognized as such were known by various names, such as argentarii (trans. banker), nummularii (trans. money changer), and coactores (trans. debt collector), but the vast majority of money-lenders in the Empire were private individuals, since anybody that had any additional capital and wished to lend it out, could easily do so.

The rate of interest on loans varied in the range of four percent to 12 percent, but when the interest rate was higher, it typically was not 15 or 16 percent, but 24 or 48 percent. The apparent absence of intermediary rates suggests that the Romans may have had difficulty calculating rates. They quoted them on a monthly basis, as in the loan described here, and the most common rates were multiples of twelve. Monthly rates tended to range from simple fractions to three or four percent, perhaps because lenders used Roman numerals.

Colum Ella advised people setting up vineyards to include the interest on borrowed money among their costs as a matter of course and clearly understood that investors need to think about the cost of invested funds, whether borrowed or not. His advice shows financial sophistication in addition to suggesting the presence of loans for productive purposes.

Money lending during this period was largely a matter of private loans being advanced to people short of cash, whether persistently in debt or temporarily until the next harvest. For the most part exceedingly rich men who were prepared to take on a high risk if the profit looked good undertook it; interest rates were fixed privately and were almost entirely unrestricted by law. Thus, investment was always regarded as a matter of seeking personal profit, often on an exorbitant scale. Banking was of the small back-street variety, run by the urban lower-middle class of petty shopkeepers. By the 3rd century, acute currency problems in the Empire drove them into a state of decline.

Western banking history

The Church officially prohibited usury, which reaffirmed the view that it was a sin to charge interest on a money loan. The development of double entry bookkeeping would provide a powerful argument in favor of the legitimacy and integrity of a firm and its profits. While archival evidence suggests the emergence of bookkeeping practices during the course of the 13th century, the earliest extant evidence of full double-entry bookkeeping is the Farolfi ledger of 1299-1300. Giovanni Farolfi & Company were a firm of Florentine merchants whose head office was in Nîmes whose ledger shows that they also acted as moneylender to Archbishop of Arles, their most important customer. His patronage must also have shielded the Florentines from any trouble over the Church's official ban on usury, which in any case was not seriously enforced, provided the rate of interest was not extortionate; the Archbishop himself borrowed from the Farolfi at 15 per cent per annum.

Banking in the modern sense of the word can be traced to medieval and early Renaissance Italy, to the rich cities in the north like Florence, Venice, and Genoa. The Bardi and Peruzzi families were dominated banking in 14th century Florence, establishing branches in many other parts of Europe. Perhaps the most famous Italian bank was the Medici bank, set up by Giovanni Medici in 1397. Modern Western economic and financial history is usually traced back to the coffee houses of London. The London Royal Exchange was established in 1565. At that, time moneychangers were already called bankers, though the term "bank" usually referred to their offices, and did not carry the meaning it does today. There was also a hierarchical order among professionals; at the top were the bankers who did business with heads of state, next were

the city exchanges, and at the bottom were the pawn shops or "Lombard"'s. Some European cities today have a Lombard street where the pawnshop was located.

Banking offices were usually located near centers of trade, and in the late 17th century, the largest centers for commerce were the ports of Amsterdam, London, and Hamburg. Individuals could participate in the lucrative East India trade by purchasing bills of credit from these banks, but the price they received for commodities was dependent on the ships returning (which often didn't happen on time) and on the cargo they carried (which often wasn't according to plan). The commodities market was very volatile for this reason, and because of the many wars that led to cargo seizures and loss of ships.

Capitalism

Around the time of Adam Smith (1776) there was a massive growth in the banking industry. Banks played a key role in moving from gold and silver based coinage to paper money, redeemable against the bank's holdings.

Within the new system of ownership and investment, the state's role as an economic factor changed substantially.

Global banking

In the 1970s, a number of smaller crashes tied to the policies put in place following the depression, resulted in deregulation and privatization of government-owned enterprises in the 1980s, indicating that governments of industrial countries around the world found private-sector solutions to problems of economic growth and development preferable to state-operated, semi- socialist programs. This spurred a trend that was already prevalent in the business sector, large companies becoming global and dealing with customers, suppliers, manufacturing, and information centers all over the world.

Global banking and capital market services proliferated during the 1980s and 1990s as a result of a great increase in demand from companies, governments, and financial institutions, but also because financial market conditions were buoyant and, on the whole, bullish. Interest rates in the United States declined from about 15% for two-year U.S. Treasury notes to about 5% during the 20-year period, and financial assets grew then at a rate approximately twice the rate of the world economy. Such growth rate would have been lower, in the last twenty years, were it not for the profound effects of the internationalization of financial markets especially U.S. Foreign investments, particularly from Japan, who not only provided the funds to corporations in the U.S., but also helped finance the federal government; thus, transforming the U.S. stock market by far into the largest in the world.

Nevertheless, in recent years, the dominance of U.S. financial markets has been disappearing and there has been an increasing interest in foreign stocks. The extraordinary growth of foreign financial markets results from both large increases in the pool of savings in foreign countries, such as Japan, and, especially, the deregulation of foreign financial markets, which has enabled them to expand their activities. Thus, American corporations and banks have started seeking investment opportunities abroad, prompting the development in the U.S. of mutual funds specializing in trading in foreign stock markets.

Such growing internationalization and opportunity in financial services has entirely changed the competitive landscape, as now many banks have demonstrated a preference for the –universal banking‖ model prevalent in Europe. Universal banks are free to engage in all forms of financial services, make investments in client companies, and function as much as possible as a –one-stop‖ supplier of both retail and wholesale financial services.

Many such possible alignments could be accomplished only by large acquisitions, and there were many of them. By the end of 2000, a year in which a record level of financial services transactions with a market value of \$10.5 trillion occurred, the top ten banks commanded a market share of more than 80% and the top 5, 55%. Of the top ten banks ranked by market share, seven were large universal-type banks (three American and four European), and the remaining three were large U.S. investment banks who between them accounted for a 33% market share.

This growth and opportunity also led to an unexpected outcome: entrance into the market of other financial intermediaries: nonbanks. Large corporate players were beginning to find their way into the financial service community, offering competition to established banks. The main services offered included insurances, pension, mutual, money market and hedge funds, loans and credits and securities. Indeed, by the end of 2001 the market capitalization of the world's 15 largest financial services providers included four nonbanks.

In recent years, the process of financial innovation has advanced enormously increasing the importance and profitability of nonbank finance. Such profitability priory restricted to the nonbanking industry, has prompted the Office of the Comptroller of the Currency (OCC) to encourage banks to explore other financial instruments, diversifying banks' business as well as improving banking economic health. Hence, as the distinct financial instruments are being explored and adopted by the banking and nonbanking industries, the distinction between different financial institutions is gradually vanishing.

Major events in banking history

- Florentine banking — The Medicis and Pittis among others.
- Knights Templar- earliest Euro wide /Mideast banking 1100-1300.
- Banknotes — Introduction of paper money.
- 1602 - First joint-stock company, the Dutch East India Company founded.
- 1720 - The South Sea Bubble and John Law's Mississippi Scheme, which caused a European financial crisis and forced many bankers out of business.
- 1781 - The Bank of North America was found by the Continental Congress.
- 1800 - Rothschild family founds Euro wide banking.
- 1930-33 in the wake of the Wall Street Crash of 1929, 9,000 banks close, wiping out a third of the money supply in the United States.
- 1986 - The "Big Bang" (deregulation of London financial markets) served as a catalyst to reaffirm London's position as a global centre of world banking.
- 2008 - Washington Mutual collapses. It was the largest bank failure in history.

Oldest private banks

- Monte dei Paschi di Siena 1472–present, the oldest surviving bank in the world. Founded in 1472 by the Magistrate of the city-state of Siena, Italy.
- Rolo Banca founded 1473 - now part of Unicredit Group of Italy
- C. Hoare & Co founded 1672
- Barclays, which was founded by John Freame and Thomas Gould in 1690^[19] and renamed to Barclays by Freame's son-in-law, James Barclay, in 1736
- Rothschild family 1700–present
- Wegelin & Co. Private Bankers 1741–present, the oldest Swiss bank, founded in 1741 in St. Gallen, third largest private bank in Switzerland
- Hope & Co., founded in 1762

Oldest national banks

- Bank of Sweden — The rise of the national banks, began operations in 1668
- Bank of England — The evolution of modern central banking policies, established in 1694
- Bank of America — The invention of centralized check and payment processing technology
- Swiss banking
- United States Banking
- The Pennsylvania Land Bank, founded in 1723 and receiving the support of Benjamin Franklin who wrote "Modest Enquiry into the Nature and Necessity of a Paper Currency" in 1729.
- Ziraat Bank (Turkey) — Founded in 1863 to finance farmers by providing agricultural loans.
- Bulgarian National Bank — the central bank of the Republic of Bulgaria with its headquarters in Sofia, has been established in 25 January 1879 and is one of the oldest central banks in the world. The BNB is an independent institution responsible for issuing all banknotes and coins in the country, overseeing and regulating the banking sector and keeping the government's currency reserves.

- Imperial Bank of Persia (Iran) Founded in 1888 and was merged in Tejarat Bank in 1979
— History of banking in the Middle-East

History of Banking in India

For the past three decades, India's banking system has several outstanding achievements to its credit. The most striking is its extensive reach. It is no longer confined to only metropolitans or cosmopolitans in India. In fact, Indian banking system has reached even to the remote corners of the country. This is one of the main reasons of India's growth process.

The government's regular policy for Indian bank since 1969 has paid rich dividends with the nationalization of 14 major private banks of India.

Not long ago, an account holder had to wait for hours at the bank counters for getting a draft or for withdrawing his own money. Today, he has a choice. Gone are days when the most efficient bank transferred money from one branch to other in two days. Now it is simple as instant messaging or dial a pizza. Money have become the order of the day.

The first bank in India, though conservative, was established in 1786. From 1786 until today, the journey of Indian Banking System can be segregated into three distinct phases. They are as mentioned below:

- Early phase from 1786 to 1969 of Indian Banks
- Nationalization of Indian Banks and up to 1991 prior to Indian banking sector Reforms.
- New phase of Indian Banking System with the advent of Indian Financial & Banking Sector Reforms after 1991.

To make this write-up more explanatory, I prefix the scenario as Phase I, Phase II and Phase III.

Phase I

The General Bank of India was set up in the year 1786. Next came Bank of Hindustan and Bengal Bank. The East India Company established Bank of Bengal (1809), Bank of Bombay (1840), and Bank of Madras (1843) as independent units and called it Presidency Banks. These

three banks were amalgamated in 1920 and Imperial Bank of India was established which started as private shareholders banks, mostly Europeans shareholders.

In 1865, Allahabad Bank was established and first time exclusively by Indians, Punjab National Bank Ltd. was set up in 1894 with headquarters at Lahore. Between 1906 and 1913, Bank of India, Central Bank of India, Bank of Baroda, Canara Bank, Indian Bank, and Bank of Mysore were set up. Reserve Bank of India came in 1935.

During the first phase, the growth was very slow and banks also experienced periodic failures between 1913 and 1948. There were approximately 1100 banks, mostly small. To streamline the functioning and activities of commercial banks, the Government of India came up with The Banking Companies Act, 1949 which was later changed to Banking Regulation Act 1949 as per amending Act of 1965 (Act No. 23 of 1965). Reserve Bank of India was vested with extensive powers for the supervision of banking in India as the Central Banking Authority.

During those, day's public has lesser confidence in the banks. As an aftermath, deposit mobilization was slow. Abreast of it the savings bank facility provided by the Postal department was comparatively safer. Moreover, funds were largely given to traders.

Phase II

Government took major steps in this Indian Banking Sector Reform after independence. In 1955, it nationalized Imperial Bank of India with extensive banking facilities on a large scale especially in rural and semi-urban areas. It formed State Bank of India to act as the principal agent of RBI and to handle banking transactions of the Union and State Governments all over the country.

Seven banks forming subsidiary of State Bank of India was nationalized in 1960 on 19 July 1969, major process of nationalization was carried out. It was the effort of the then Prime Minister of India, Mrs. Indira Gandhi. 14 major commercial banks in the country were nationalized.

Second phase of nationalization Indian Banking Sector Reform was carried out in 1980 with seven more banks. This step brought 80% of the banking segment in India under Government ownership.

The following are the steps taken by the Government of India to Regulate Banking Institutions in the Country:

- 1949: Enactment of Banking Regulation Act.
- 1955: Nationalization of State Bank of India.
- 1959: Nationalization of SBI subsidiaries.
- 1961: Insurance cover extended to deposits.
- 1969: Nationalization of 14 major banks.
- 1971: Creation of credit guarantee corporation.
- 1975: Creation of regional rural banks.
- 1980: Nationalization of seven banks with deposits over 200 crore.

After the nationalization of banks, the branches of the public sector bank India rose to approximately 800% in deposits and advances took a huge jump by 11,000%. Banking in the sunshine of Government ownership gave the public implicit faith and immense confidence about the sustainability of these institutions.

Phase III

This phase has introduced many more products and facilities in the banking sector in its reforms measure. In 1991, under the chairmanship of M Narasimham, a committee was set up by his name, which worked for the liberalization of banking practices.

The country is flooded with foreign banks and their ATM stations. Efforts are being put to give a satisfactory service to customers. Phone banking and net banking is introduced. The entire system became more convenient and swift. Time is given more importance than money.

The financial system of India has shown a great deal of resilience. It is sheltered from any crisis triggered by any external macroeconomics shock as other East Asian Countries suffered. This is all due to a flexible exchange rate regime, the foreign reserves are high, the capital account is not yet convertible, and banks and their customers have limited foreign exchange exposure.

Nationalization of Banks in India

The nationalization of banks in India took place in 1969 by Mrs. Indira Gandhi the then prime minister. It nationalized 14 banks then. These banks were mostly owned by businesspersons and even managed by them.

- Central Bank of India
- Bank of Maharashtra
- Dena Bank
- Punjab National Bank
- Syndicate Bank
- Canara Bank
- Indian Bank
- Indian Overseas Bank
- Bank of Baroda
- Union Bank
- Allahabad Bank
- United Bank of India
- UCO Bank
- Bank of India

Before the steps of nationalization of Indian banks, only State Bank of India (SBI) was nationalized. It took place in July 1955 under the SBI Act of 1955. Nationalization of Seven State Banks of India (formed subsidiary) took place on 19 July 1960.

The State Bank of India is India's largest commercial bank and is ranked one of the top five banks worldwide. It serves 90 million customers through a network of 9,000 branches and it offers -- either directly or through subsidiaries -- a wide range of bankingservices.

The second phase of nationalization of Indian banks took place in the year 1980. Seven more banks were nationalized with deposits over 200 crore. Until this year, approximately 80% of the banking segment in India was under Government ownership.

After the nationalization of banks in India, the branches of the public sector banks rose to approximately 800% in deposits and advances took a huge jump by 11,000%.

- 1955: Nationalization of State Bank of India.
- 1959: Nationalization of SBI subsidiaries.
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Scheduled Commercial Banks in India

The commercial banking structure in India consists of:

- Scheduled Commercial Banks in India
- Unscheduled Banks in India

Scheduled Banks in India constitute those banks, which have been included in the Second Schedule of Reserve Bank of India (RBI) Act, 1934. RBI in turn includes only those banks in this schedule which satisfy the criteria laid down vide section 42 (6) (a) of the Act.

As on 30th June, 1999, there were 300 scheduled banks in India having a total network of 64,918 branches. The scheduled commercial banks in India comprise of State bank of India and its associates (8), nationalized banks (19), foreign banks (45), private sector banks (32), co- operative banks and regional rural banks.

"Scheduled banks in India" means the State Bank of India constituted under the State Bank of India Act, 1955 (23 of 1955), a subsidiary bank as defined in the State Bank of India (Subsidiary Banks) Act, 1959 (38 of 1959), a corresponding new bank constituted under section 3 of the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 (5 of 1970), or under section 3 of the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1980 (40 of 1980), or any other bank being a bank included in the Second Schedule to the Reserve Bank of India Act, 1934 (2 of 1934), but does not include a co-operative bank".

"Non-scheduled bank in India" means a banking company as defined in clause (c) of section 5 of the Banking Regulation Act, 1949 (10 of 1949), which is not a scheduled bank".

The following are the Scheduled Banks in India (Public Sector):

- State Bank of India
- State Bank of Bikaner and Jaipur
- State Bank of Hyderabad
- State Bank of Indore
- State Bank of Mysore
- State Bank of Saurashtra
- State Bank of Travancore
- Andhra Bank
- Allahabad Bank
- Bank of Baroda
- Bank of India
- Bank of Maharashtra
- Canara Bank
- Central Bank of India
- Corporation Bank
- Dena Bank
- Indian Overseas Bank
- Indian Bank
- Oriental Bank of Commerce
- Punjab National Bank
- Punjab and Sind Bank
- Syndicate Bank
- Union Bank of India
- United Bank of India
- UCO Bank
- Vijaya Bank

The following are the Scheduled Banks in India (Private Sector):

- ING Vysya Bank Ltd
- Axis Bank Ltd
- Indusind Bank Ltd
- ICICI Bank Ltd
- South Indian Bank
- HDFC Bank Ltd
- Centurion Bank Ltd
- Bank of Punjab Ltd
- IDBI Bank Ltd
- Jammu & Kashmir Bank Ltd.

The following are the Scheduled Foreign Banks in India:

- American Express Bank Ltd.
- ANZ Gridlays Bank Plc.
- Bank of America NT & SA
- Bank of Tokyo Ltd.
- Banque Nationale de Paris
- Barclays Bank Plc
- Citi Bank N.C.
- Deutsche Bank A.G.
- Hongkong and Shanghai Banking Corporation
- Standard Chartered Bank.
- The Chase Manhattan Bank Ltd.
- Dresdner Bank AG.

INTRODUCTION OF INTERNET BANKING

Internet banking-Internet banking is changing the banking industry and is having the major effects on banking relationships. Banking is now no longer confined to the branches where one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. In true Internet banking, any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing Internet banking is increasingly becoming a "need to have" than a "nice to have" service. The net banking, thus, now is more of a norm rather than an exception in many developed countries due to the fact that it is the cheapest way of providing banking services.

WHAT IS E-BANKING?

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, such as a personal computer (PC), personal digital assistant (PDA), automated teller machine (ATM), kiosk, or Touch Tone telephone. While the risks and controls are similar for the various e-banking access channels, this booklet focuses specifically on Internet-based services due to the Internet's widely accessible public network. Accordingly, this booklet begins with a discussion of the two primary types of Internet websites: informational and transactional

Traditional banks offer many services to their customers, including accepting customer money deposits, providing various banking services to customers, and making loans to individuals and companies. Compared with traditional channels of offering banking services through physical branches, e-banking uses the Internet to deliver traditional banking services to their customers, such as opening accounts, transferring funds, and electronic bill payment.

E-banking can be offered in two main ways. First, an existing bank with physical offices can also establish an online site and offer e-banking services to its customers in addition to the regular channel. For example, Citibank is a leader in e-banking, offering walk-in, face-to-face banking at

its branches throughout many parts of the world as well as e-banking services through the World Wide Web. Citibank customers can access their bank accounts through the Internet, and in addition to the core e-banking services such as account balance inquiry, funds transfer, and electronic bill payment, Citibank also provides premium services including financial calculators, online stock quotes, brokerage services, and insurance.

E-banking from banks like Citibank complements those banks' physical presence. Generally, e-banking is provided without extra cost to customers. Customers are attracted by the convenience of e-banking through the Internet, and in turn, banks can operate more efficiently when customers perform transactions by themselves rather than going to a branch and dealing with a branch representative.

E-banking services are delivered to customers through the Internet and the web using Hypertext Markup Language (HTML). In order to use e-banking services, customers need Internet access and web browser software. Multimedia information in HTML format from online banks can be displayed in web browsers. The heart of the e-banking application is the computer system, which includes web servers, database management systems, and web application programs that can generate dynamic HTML pages.

One of the main concerns of e-banking is security. Without great confidence in security, customers are unwilling to use a public network, such as the Internet, to view their financial information online and conduct financial transactions. Some of the security threats include invasion of individuals' privacy and theft of confidential information. Banks with e-banking service offer several methods to ensure a high level of security: (1) identification and authentication, (2) encryption, and (3) firewalls. First, the identification of an online bank takes the form of a known Uniform Resource Locator (URL) or Internet address, while a customer is generally identified by his or her login ID and password to ensure only authenticated customers can access their accounts. Second, messages between customers and online banks are all encrypted so that a hacker cannot view the message even if the message is intercepted over the Internet. The particular encryption standard adopted by most browsers is called Secure Socket Layer (SSL). It is built in the web browser program and users do not have to take any extra steps to set up the program. Third, banks have built firewalls, which are software or hardware barriers

between the corporate network and the external Internet, to protect the servers and bank databases from outside intruders. For example, Wells Fargo Bank connected to the Internet only after it had installed a firewall and made sure the firewall was sufficiently impenetrable.



HISTORY OF E- BANKING

On October 1, 2000, the electronic signatures bill took effect, recognizing documents signed online as legal. Some banks plan to begin using electronic checks as soon as they can work out various security measures.

The range of e-banking services is likely to increase in the future. Some banks plan to introduce electronic money and electronic checks. Electronic money can be stored in computers or smart cards and consumers can use the electronic money to purchase small value items over the Internet. Electronic checks will look similar to paper checks, but they can be sent from buyers to sellers over the Internet, electronically endorsed by the seller, and forwarded to the seller's bank for electronic collection from the buyer's bank. Further, banks seek to offer their customers more products and services such as insurance, mortgage, etc.

EVOLUTION OF E-BANKING

The story of technology in banking started with the use of punched card machines like Accounting Machines or Ledger Posting Machines. The use of technology, at that time, was limited to keeping books of the bank. It further developed with the birth of online real time system and vast improvement in telecommunications during late 1970's and 1980's. It resulted in a revolution in the field of banking with –convenience banking as a buzzword. Through Convenience banking, the bank is carried to the doorstep of the customer.

The 1990's saw the birth of distributed computing technologies and Relational Database Management System. The banking industry was simply waiting for these technologies. Now with distribution technologies, one could configure dedicated machines called front-end machines for customer service and risk control while communication in the batch mode without hampering the response time on the front-end machine. Intense competition has forced banks to rethink the way they operated their business. They had to reinvent and improve their products and services to make them more beneficial and cost effective. Technology in the form of E-banking has made it possible to find alternate banking practices at lower costs. More and more people are using electronic banking products and services because a large section of the bank's future customer base will be made up of computer literate customers. The banks must be able to offer these customer products and services that allow them to do their banking by electronic means. If they fail to do this, they will simply not survive. New products and services are emerging that are set to change the way we look at money and the monetary system.

NEED FOR E-BANKING

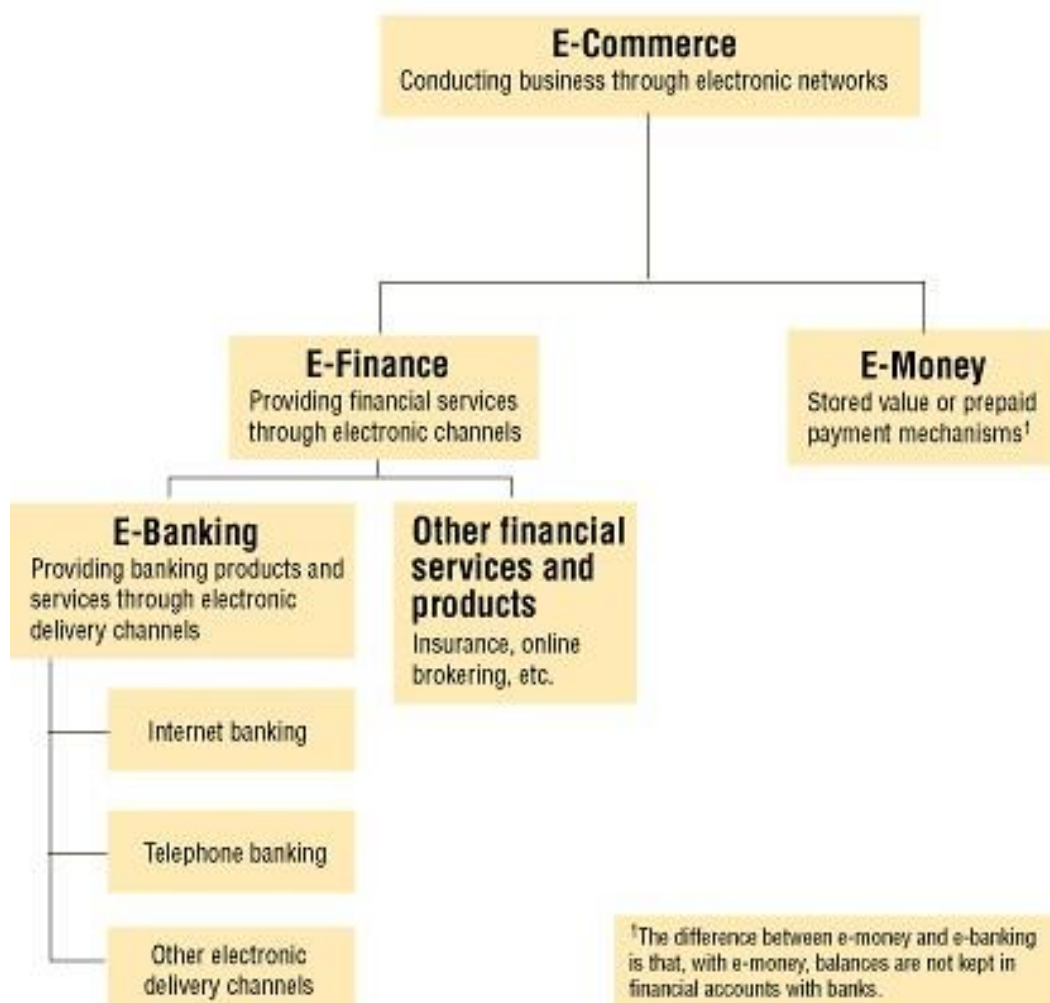
One has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. In true Internet banking, any inquiry or transaction is processed online without any reference to the branch (anywhere banking) at any time. Providing Internet banking is increasingly becoming a "need to have" rather than a "nice to have" service. The net banking, thus, now is more of a norm rather than an exception in many developed countries due to the fact that it is the cheapest way of providing banking services. Banks have traditionally been in the forefront of harnessing technology to improve their products, services and efficiency. They have, over a long time, been using

Bank Information technology Customer

Electronic and telecommunication networks for delivering a wide range of value added products and services. The delivery channels include direct dial – up connections, private networks, public networks etc. and the devices include telephone, Personal Computers including the Automated Teller Machines, etc. With the popularity of PCs, easy access to Internet and World Wide Web (WWW), Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. This form of banking is generally referred to as Internet Banking, although the range of products and services offered by different banks vary widely both in their content and sophistication.

DIAGRAM OF E-BANKING SYSTEM

What is electronic banking?



Types of E-Banking

The common assumption is that Internet banking is the only method of on-line banking. However, this is not strictly the case, as several types of service are currently available:

- **PC Banking** - The forerunner to Internet banking has been around since the late 1980's and is still widely used today. Individual banks provide software which is loaded on to an SME's office computer. The SME can then access their bank account via a modem and telephone link to the bank. Access is not necessarily via the Internet.
- **Internet Banking** - Using a Web browser, a user can access their account, once the bank's application server has validated the user's identity.
- **Digital TV Banking**-Using the standard digital reception equipment (set top box and remote control), users can access their bank account. Abbey National and HSBC services are available via Digital TV providers. One of its main selling points is that no account details are transmitted via the World Wide Web;
- **Text Phone Banking** - HSBC have introduced this service to allow customers with text phones to check their balance, pay bills and transfer money.

Internet banking can be split into two distinct groups:

- Traditional banks and building societies use the Internet as an add-on service with which to give businesses access to their accounts.
- New Internet-only banks have no bricks and mortar presence on the High Street. Therefore, they have lower overheads and can offer higher rates of interest and lower charges.

FEATUERS OF E-BANKING

- E-Banking provide exceptional rates on Savings, CDs, and IRAs
- Checking with no monthly fee, free bill payment and rebates on ATM surcharges
- credit cards with low rates
- Easy online applications for all accounts, including personal loans and mortgages
- 24 hour account access
- It provides Quality customer service with personal attention
- It provides the quick services to their customers.
- Enables transfer of funds from one place to another(banks).
- Exchange of statistical information among banks.
- Enables foreign exchange operations.
- Inter-bank applications like settlement of funds between banks.
- Provides facilities like de-mat operation,ATM operation,online banking.

BENEFITS OF E-BANKING

For Banks:

Price- In the long run a bank can save on money by not paying for tellers or for managing branches. Plus, it's cheaper to make transactions over the Internet.Customer Base- The Internet allows banks to reach a whole new market- and a well off one too, because there are no geographic boundaries with the Internet. The Internet also provides a level playing field for small banks who want to add to their customer base. Efficiency- Banks can become more efficient than they already are by providing Internet access for their customers. The Internet provides the bank with an almost paper less system.

Customer Service and Satisfaction- Banking on the Internet not only allow the customer to have a full range of services available to them but it also allows them some services not offered at any of the branches. The person does not have to go to a branch where that service may or may not be offer. A person can print of information, forms, and applications via the Internet and be able to search for information efficiently instead of waiting in line and asking a teller. With more

better and faster options a bank will surely be able to create better customer relations and satisfaction.

Image- A bank seems more state of the art to a customer if they offer Internet access. A person may not want to use Internet banking but having the service available gives a person the feeling that their bank is on the cutting image.

For Customers:

Bill Pay: Bill Pay is a service offered through Internet banking that allows the customer to set up bill payments to just about anyone. Customer can select the person or company whom he wants to make a payment and Bill Pay will withdraw the money from his account and send the payee a paper check or an electronic payment

Other Important Facilities: E- banking gives customer the control over nearly every aspect of managing his bank accounts. Besides the Customers can, Buy and Sell Securities, Check Stock Market Information, Check Currency Rates, Check Balances, See which checks are cleared, Transfer Money, View Transaction History and avoid going to an actual bank. The best benefit is that Internet banking is free. At many banks the customer doesn't have to maintain a required minimum balance. The second big benefit is better interest rates for the customer.

Internet Banking

Internet banking, sometimes called online banking, is an outgrowth of PC banking. Internet banking uses the Internet as the delivery channel by which to conduct banking activity, for example, transferring funds, paying bills, viewing checking and savings account balances, paying mortgages, and purchasing financial instruments and certificates of deposit. An Internet banking customer accesses his or her accounts from a browser— software that runs Internet banking programs resident on the bank's World Wide Web server, not on the user's PC. Net Banker defines a — true Internet bank as one that provides account balances and some transactional capabilities to retail customers over the World Wide Web. Internet banks are also known as virtual, cyber, net, interactive, or web banks. This is basically the banking industry's attempt to jump on the "e-business" band wagon. E-banking is a term that attempts to broadly

describe today's alternate delivery channels. Different banks - and vendors - will describe this differently.

Rather than spending too much time on the term, I'd suggest you open a dialogue with your customers about the types of services they are interested in, and begin to prioritize your investment in these new services. Ideas would include image delivery via Internet, Internet Commercial cash management, and on-line bill pay.

MAIN CONCERNS IN INTERNET BANKING

In a survey conducted by the Online Banking Association, member institutions rated security as the most important issue of online banking. There is a dual requirement to protect customers' privacy and protect against fraud. Banking Securely: Online Banking via the World Wide Web provides an overview of Internet commerce and how one company handles secure banking for its financial institution clients and their customers. Some basic information on the transmission of confidential data is presented in Security and Encryption on the Web. PC Magazine Online also offers a primer: How Encryption Works. A multi-layered security architecture comprising firewalls, filtering routers, encryption and digital certification ensures that your account information is protected from unauthorized access.

Internet Banking in India

The Internet banking is changing the banking industry and is having the major effects on banking relationships. Even the Morgan Stanley Dean Witter Internet research emphasized that Web is more important for retail financial services than for many other industries. Internet banking involves use of Internet for delivery of banking products & services. It falls into four main categories, from Level 1 - minimum functionality sites that offer only access to deposit account data - to Level 4 sites - highly sophisticated offerings enabling integrated sales of additional products and access to other financial services- such as investment and insurance.

DRIVERS OF CHANGE

Advantages previously held by large financial institutions have shrunk considerably. The Internet has leveled the playing field and afforded open access to customers in the global marketplace. Internet banking is a cost-effective delivery channel for financial institutions. Consumers are embracing the many benefits of Internet banking. Access to one's accounts at anytime and from any location via the World Wide Web is a convenience unknown a short time ago. The six primary drivers of Internet banking includes, in order of primacy are:

- Improve customer access
- Facilitate the offering of more services
- Increase customer loyalty
- Attract new customers
- Provide services offered by competitors
- Reduce customer attrition

The banking industry in India is facing unprecedented competition from non-traditional banking institutions, which now offer banking and financial services over the Internet. The deregulation of the banking industry coupled with the emergence of new technologies, are enabling new competitors to enter the financial services market quickly and efficiently.

Features of Internet banking

The features available from an on-line bank account are similar to those which are available via 'phone banking or visiting the local branch. On-line banking features do differ between the banks, but usually include:

- Transfer of funds between accounts;
- It brings efficiency in CRM(Customer relationship management)
- Make Payment of bills
- Introduces new & innovative products & services
- View balance and statements;
- Brings door to door services
- Create, view and maintain Standing Orders

- Have evolutionary trend at a globe scenario.

ADVANTAGES OF E-BANKING:-

- Convenience - Unlike your corner bank, online banking sites never close; they're available 24 hours a day, seven days a week, and they're only a mouse click away. With pressures on time and longer travelling periods, more and more people find it tiresome waiting in queues. People want flexibility, and Internet banking offers just that.
- Ubiquity - If you're out of state or even out of the country when a money problem arises, you can log on instantly to your online bank and take care of business, 24\7.
- Transaction speed Online bank sites generally execute and confirm transactions at or quicker than ATM processing speeds.
- Efficiency- You can access and manage all of your bank accounts, including IRA's, CDs, even securities, from one secure site.
- Effectiveness- Many online banking sites now offer sophisticated tools, including account aggregation, stock quotes, rate alert and portfolio managing program to help you manage all of your assets more effectively. Most are also compatible with money managing programs such as Quicken and Microsoft money.
- Cheaper alternative : - With increasing competition, it seems to be the cost factor that is driving banks to offer the facility. The Internet is still a very cheap alternative to opening a physical branch, and most of the push seems to be coming from the supply side. The costs of a banking service through the Internet form a fraction of costs through conventional methods.
- From snob value to necessity:- 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 the services. Today, bankers believe that the trend from 'nice to have' is changing to 'need to have'. The "snob value" of banking with an organization that could offer service on the Internet has given way to a genuine necessity, he feels. "It all depends on how busy a person is."

DISADVANTAGES OF INTERNET BANKING

- Start-up may take time In order to register for your bank's online program, you will probably have to provide ID and sign a form at a bank branch. If you and your spouse wish to view and manage their assets together online, one of you may have to sign a durable power of attorney before the bank will display all of your holdings together.
- Learning curves- Banking sites can be difficult to navigate at first. Plan to invest some time and/or read the tutorials in order to become comfortable in your virtual lobby.
- Bank site changes- Even the largest banks periodically upgrade their online programs, adding new features in unfamiliar places. In some cases, you may have to re-enter account information.

HOW E-BANKING CAN EASE YOUR LIFE

Indian banks are trying to make your life easier. Not just bill payment, you can make investments, shop or buy tickets and plan a holiday at your fingertips. In fact, sources from ICICI Bank tell us, "Our Internet banking base has been growing at an exponential pace over the last few years. Currently around 78 percent of the bank's customer base is registered for Internet banking." To get started, all you need is a computer with a modem or other dial-up device, a checking account with a bank that offers online service and the patience to complete about a one-page application--which can usually be done online. You can avail the following services.

1. Bill payment service: Each bank has tie-ups with various utility companies, service providers and insurance companies, across the country. It facilitates the payment of electricity and telephone bills, mobile phone, credit card and insurance premium bills. To pay bills, a simple one-time registration for each biller is to be completed. Standing instructions can be set, online to pay recurring bills, automatically. One-time standing instruction will ensure that bill payments do not get delayed due to lack of time. Most interestingly, the bank does not charge customers for online bill payment.

2. Fund transfer: Any amount can be transferred from one account to another of the same or any other bank. Customers can send money anywhere in India. Payee's account number, his bank and the branch is needed to be mentioned after logging in the account. The transfer will take place in a day or so, whereas in a traditional method, it takes about three working days. ICICI Bank says that online bill payment service and fund transfer facility have been their most popular online services.

3. Creditcard customers : Credit card users have a lot in store. With Internet banking, customers can not only pay their credit card bills online but also get a loan on the ir cards. Not just this, they can also apply for an additional card, request a credit line increase and God forbid if you lose your credit card, you can report lost card online.

4. Railway pass: This is something that would interest all the aamjanta. Indian Railways has tie d up with ICICI bank and you can now make your railway pass for local trains online. The pass will be delivered to you at your doorstep. But the facility is limited to Mumbai, Thane, Nasik, Surat and Pune. The bank would just charge Rs 10 + 12.24 percent of service tax.

5. Investing through Internet banking: Opening a fixed deposit account cannot get easier than this. An FD can be opened online through funds transfer. Online banking can also be a great friend for lazy investors. Now investors with interlinked de-mat account and bank account can easily trade in the stock market and the amount will be automatically debited from their respective bank accounts and the shares will be credited in their de-mat account.

Moreover, some banks even give the facility to purchase mutual funds directly from the online banking system. So it removes the worry a bout filling those big forms for mutual funds, they will now be just a few c licks away. Nowadays, most leading banks offer both online banking and de-mat account. However if the customer have therede-mat account with independent share brokers, then need to sign a special form, which will link your two accounts.

6. Recharging your prepaid phone : Now there is no need to rush to the vendor to recharge the prepaid phone, every time the talk time runs out. Just top-up the pre paid mobile cards by logging in to Internet banking. By just selecting the operator's name, entering the

mobile number and the amount for re charge , the phone is again back in action within fewminutes.

7. Shopping at your fingertips : Leading banks have tie ups with various shopping websites. With a range of all kind of products, one can shop online and the payment is also made conveniently through the account. One can also buy railway and air tickets through Internet banking.

Mobile banking use cases

A mobile user has to be seen from his context when using the application. Needs and expectations are not generic, but bound to this context.

As a typical mobile banking user, we consider someone who already is an electronic banking user shows significant affinity to technology and often finds himself in situations where he can not (or does not want to) rely an infrastructure necessary for electronic banking.

In the following, we introduce four use cases. These have been developed in the course of two group discussions; each group consisted of mobile banking users and mobile commerce experts. The groups focused on identifying real-life situations in which the use of mobile banking provides an informational added value. The resulting situations have been aggregated to the use cases The use cases are not exhaustive, but representative: Each case stands for a series of cases, which are similar in the depth of the desired information and/or the conditions of the usage. For each use case we identify the most important, concrete need that the user has in this particular situation.

Use case 1: Request of account balance.

The user is in a mobile situation (e.g. in a department store) and intends to know his account balance, e.g. to verify his account before realizing a spontaneous purchase. Resulting need: Quick obtainment of account balance.

Use case 2: Control of account movements.

The user is waiting for an important cash receipt on his account. He intends to have the exact details of the cash receipt. Resulting need: Continuous control over movements on the account.

Use case 3: Instant payment.

The user is in a mobile situation and intends to make a payment by bank transfer from his account. Resulting need: Instant execution of a bank transfer.

Use case 4: Administration of the account.

The user intends to use spare time (e.g. using a train or waiting on the airport) to administrate his account. Resulting need: Quick and easy-to-use execution of transactions and administration is possible.

Business models and new ways to interact with customers. The ability to perform banking transactions online has created new players in the financial industry, such as online banks and brokers who offer personalized services through their Web portals. This increased competition is driving traditional financial institutions to find new ways to add the value to their products and services, gain competitive advantage and increase customer loyalty while also attracting new, high-value clients.

Mobile and wireless technology, combined with the wide variety of portable devices available today, enables new revenue opportunities for financial services organizations. This provides a new channel that can be used to refresh and expand the customer base, attract prime customers and enhance loyalty. With mobile and wireless technology, banks can offer a wide possibilities of services to their customers, from the freedom of paying bills while stuck in traffic, to receiving notification of a change in stock price while having lunch, the convenience and time saving benefits of wireless financial services are huge. The challenge, then, is how to turn these possibilities into a reality for the customers.

<u>Benefits</u>	<u>Description</u>
Grow new customer base and markets	Developing wireless applications and services targeted at the mobile mass market will allow attracting new, high-value customers into mobile banking portal and expanding the reach to global markets.

Increase share of customer wallet	The convenience of having personalized wireless access to critical financial information is an invaluable service for customers on the move. Enabling the execution of time-sensitive financial transactions anywhere, anytime, provides the opportunity to strengthen the relationships with existing customers. This ultimately results in an increased share of the customers' transactions--preventing them from taking a portion of their financial business elsewhere.
Grow assets, number of transactions and fees	Granting customers flexible access to financial information and accounts enables them to perform transactions when it's most convenient for them. As a result, they have the opportunity to conduct transactions more frequently, driving increased revenue from fees.

General conditions of mobile banking

Electronic banking is one of the most successful business- to-consumer applications in electronic commerce (EC).

Banks greatly support this not only because they could meet their customers' need for convenience but also because of the enormous economic impacts in replacing a high-cost channel (bank clerks) through a low-cost channel (a central web server) for simple transactions, with the additional benefit of eliminating the necessity for a media conversion.

Since users considered their mobile phone as a personal trusted device making it to an integral part of their lives and more and more of these devices became Internet- enabled, the regular conclusion was the transformation of banking applications to mobile devices as the next step of electronic banking development.

For mobile banking, the advantages even go much further than for electronic banking: The high penetration of mobile phones reaches all social levels; mobile applications disband the limitations of electronic banking as they allow for a use anytime-anywhere and the subjective and objective security of the device is higher than that of a personal computer. Despite all of this, more than four years after the start of the first mobile banking applications customers simply do not use them and utilization figures stay very far behind all expectations (e.g. [1]). Mobile banking as an established channel still seems to be a distant prospect.

The reasons for this great disappointment are to be analyzed. Doing so in the following sections, we do not intend to start with current applications (which could mean biased) but from scratch, with an analysis of the customer requirements to such applications.

Customer requirements for mobile banking applications Set of customer requirements

Technical requirements

- Usage is possible with both kinds of devices
- Adaptation to device
- Usage regardless of network operator
- Small amount of transmitted data

Usability requirements

- Possibility to work offline
- Simple data input method
- Resumption of usage at the same point
- One-Click-Request

Design requirements

- Possibility to personalize the application
- Possibility to scale the application
- Announcement of events
- Wide range of functionality

Security requirements

- Encrypted data transmission
- Authorization of access
- Simple Authorization

General considerations

A mobile banking application is, first of all, a mobile application. To conceptualize a mobile application, additional informational added values have to be targeted, using mobile added values [14]. In other words, it is far from sufficiency to just porting an existing Internet application on a mobile device. Mobile applications have to be specifically made-to-measure on the one hand side to the needs and expectations of the mobile user and on the other hand side to the specific restrictions of mobile communication techniques and mobile devices. In order to derive a set of requirements to mobile banking applications we pursue two steps: Firstly we identify general characteristics of the mobile use which are relevant. Secondly we closely watch the user and his context when wanting to use mobile banking.

Characteristics of the mobile use

The use of mobile applications underlies several specific restrictions. We consider five characteristics of the mobile use to be particularly relevant as they greatly influence the design of mobile banking applications and the suitability of certain technical solutions. A mobile application is used via a mobile device. For these devices (currently either a mobile phone or a PDA), special limitations are valid. For the mobile banking context, above all, these are the limited input and display capabilities. The connection is provided by a mobile network operator (MNO). This is especially important if applications need to access certain parts of the infrastructure which are under control of the MNO (e.g. the SIM card). In the case of negotiations, these have to be pursued with all MNO on the designated market. The use of mobile data transmission is expensive. In the case of circuit-switched data transmission.

Sensitive data is transmitted. This implicates the use of adequate security measures. A disruption of the usage is possible at any time. This is principally already true for electronic banking as well (the connection may e.g. be disrupted by a breakdown of the transmission or of the operating system of the client Computer) and provides a special necessity to avoid incomplete transactions. For mobile banking, it is extremely more probable as a mobile usage causes a continuous change of conditions, e.g. through geographical influences or cell-handover. Thus, it is also important for the usability of a service: It is not acceptable for a user if he almost completed a transaction and his train enters a tunnel that he has to wait until the end of the tunnel

and restart his transaction from the beginning (hoping the next tunnel is far away enough). It is important that the named restrictions have to be considered as early as possible, which means in the phase of conceptualization.

Mobile Banking: No wires, No worries, New Customers

Mobile communication devices are revolutionizing banking transactions over wireless network and the Internet. To attract and retain customers, bank need to exchange their full range of services across a wide range of Mobile, wireless devices without having an impact on their current infrastructure and the delivery channels it currently supports. Wireless Networks, Mobile Gateways, Wireless Application Protocol (WAP) & Wireless Markup Language (WML) all play an important role in bringing mobile banking strategy to the market.

In addition to established traditional channels, including branch banking and ATM banking, most major banks in today market now offers e-banking as an extension to their existing array of services & conveniences of wired consumers & businesses, the next phase in the revolution is wireless-mobile-banking that is available anytime anywhere from _always-on‘ mobile devices like mobile phones and personal digital assistant (PDA). With the proliferation & cost effectiveness of mobile delivery channel, banks have a built-in delivery mechanism that can offer services & 24×7 access regardless of where the customer happens to be. Unlike PC-Based e- banking, m-banking provides banks with the unprecedented opportunity to reach their customers in an unrestricted environment. The big benefits for banks? Higher customer satisfaction & loyalty, no transaction-based fee revenue, lower cost of ownership and integrated customer relationship management channel.

Mobile banking applications

Examined applications

In the following, the main types of existing mobile banking applications are introduced. These build standard types as each of them is representative for a series of comparable applications.

While WAP-banking and mobile banking via PDA are generic, SMS-banking and mobile banking with SIM Toolkit use specialties of the GSM standard.

WAP-banking

The most widespread solution for mobile banking is based on micro-websites following the WAP standard (Wireless Application Protocol). The function of WAP banking is in many ways similar to the function of Electronic banking using http. The client sends a request and gets a response with page content which is stored on or dynamically generated by a standard web server. The main difference is in the usage of a WAP gateway for the conversion of the protocols. At banks must be considered that very sensitive data is processed. While a normal content provider doesn't has to observe special security precautions, and in some cases can even use the services of extern providers, has to secure its web server and WAP Gateway especially against unauthorized access. This is especially necessary because of the fact that inside the WAP Gateway the encryption protocol is converted from SSL/TLS to WTLS with the effect that data is not encrypted while it is processed. While authentication is assured via a PIN (personal identification number) of the user, authorization for transactions is realized via transaction numbers (TAN). This concept, known from the electronic banking, forces the user to carry a TAN list with him in order to make transactions.

SMS-banking

The Short Message Service (SMS) is a GSM service to exchange text messages up to 140 byte (or 160 characters of 7 bit). The transmission of mobile-originated short messages is carried out by the short message service center (SMSC) of the particular network operator. The SMSC is receiving the message from the mobile device and routing it to the destination device. For generating mobile-terminated short messages, it is possible that a company or a special service provider runs an own SMSC. Thus, a bank could generate SMS from bank data like account balance or account movements and send it to the mobile device of the customer. This technique is used at SMS-banking: The customer sends an SMS with a request to the bank, and gets the desired data as an answer.

The customer has to include a PIN for authorization in every SMS he sends to his bank. Alike the WAP banking, one should pay special attention on the security of the location of the SMSC. The operation of SMSC is offered as a service by many service providers. The usage of such a service is out of question for banks, because of the high sensitive character of the transmitted data. For this reason it is mandatory for banks to run their own SMS-Gateway and secure it from unauthorized access. The main problem with this kind of transmission is the missing encryption of the data during the on-the air transmission between the service center and the mobile phone. An encryption of pure text-SMS is not possible (unless an application on the mobile device would be able to decrypt the information). So the data is transmitted unencrypted. Because of this missing encryption, banks

MOBILE NETWORKS PROVIDE THE FOLLOWING COMPETITIVE ADVANTAGES

1. Always – on 24 ×7 access:

Mobile networks will provide the ability for consumers to be transaction- ready , much in the way cable access has facilitated online pc access and reduced consumer dial up delays 3555.

2. Advanced penetration of mobile networks:

2G (second generation) networks already cover more than 90 percent of the population in the western world, and this number is growing steadily.

3. Personalization:

Through SIM (Subscriber Identity Module) cards, mobile customers have a specific profile that enables customized functionality that directly reflects the way they want to transact business over mobile devices. Through the convenient addition of a multi-application relationship card, mobile customers will also have a built in platform for a host of other application services, including security keys, virtual credits cards, and other customized paymentinstruments.

4. Rapid evolution of global protocols such as WAP (wireless application protocol):

This enables the communication channel between computers and mobile devices. The WAP component essentially provides the facility for reformatting data for display on wireless handsets.

5. Faster Data Processing Speeds:

Increases in bandwidth and data transmission a speed makes mobile data services efficient and cost - effective in a real time environment.

6. Security:

Effectively, the mobile banking transaction can be protected by a private key stored on SIM card and hence mobile phone can become a wireless wallet to protect proprietary and financial information.

Dangers of E-Banking

Most services suffer from disadvantages, and on-line banking is no exception. Recently, there have been a number of technical incidents, where customer information was disclosed to other users. Banks have been quick to react, and have either reverted back to the previous system or have solved the problem immediately

The main disadvantages are those related to fear of the unknown. The main fear is that transferring money electronically will somehow cause it to disappear into the electronic abyss. Banks are aware of this concern and do assure account holders that such an event should not occur. There is some speculation, currently, that Internet-only banks will not be able to sustain their high interest rates.

Other drawbacks to using Internet-only banks include:

- Penalties for phone transactions;
- Access to cash (ensure that there is sufficient access to ATMs).

We may perceive this method of banking to be instantaneous. For example, when a bill is paid, the expectation is that the transaction is completed with immediate effect. However, this is not the case, as the systems are still connected to the UK clearing system, which takes three working days to clear payments., it appears that in many cases basic risk principles have been ignored in the rush. Banks could lose the whole e-trust business if they are unable to rise to the challenge of meeting customers' ever-rising demands in a secure trading environment. Use Dangers in E-banking to reduce the level of risks to a minimal level whilst ensuring that your business is not justify behind in the race to retain and win new electronic customers.

How can this report help you? - It identifies the major risks which have been encountered so far and pinpoints areas which are to become big risks for e-bankers in the future.

Security

One of the main concerns with on-line banking is that of security. Fraudulent and accidental security breaches are a rare occurrence. Banks employ many procedures and systems in order to prevent these incidents. As a result they invest a considerable amount of time and money in developing systems which will prevent fraud and unauthorized access. If a security breach is discovered, the bank is liable for all money stolen, and, as a result, insures them against the possibility.

The security used in on-line banking is a combination of technology and user authentication. The bank will use a 128 bit Secure Session Layer (SSL) encryption protocol, between its server and the user's browser. The user's browser will show a padlock when the session is secure. Using SSL can be thought of as preventing eavesdropping. If a hacker were to attempt to listen to the data transmission, they would have to guess the decryption key - which is a 1 in 3.4×10 to the power of 38 chances, making it infinitely secure. From a technology point of view, on-line banking is secure.

The weakest link of on-line banking is user authentication. Typically, a user has to supply a set of answers to questions, which they have previously entered upon registration, as well as a username and password. The banks place the responsibility of keeping these answers secure with

the user. If any are disclosed and money is stolen, the liability lies solely with the account holder, not the bank. With this in mind the following is sound advice to users:

- Make sure the Web Address starts https:\\ rather than http:\\, this shows that the session is encrypted;
- Look for the closed padlock in the browser;
- Do not use simple or easily guessable passwords (use a combination of letters and numbers) and change it frequently;
- Do not write down any username, password or any other information required;
- Always empty the cache of the browser after banking;
- Always sign-off when you are finished;
- Do not leave the PC unattended while banking;
- Do not use the "Auto Complete" feature within the browser;
- Check the Terms and Conditions for any notes on where you can and cannot access the online accounts. (e.g. an Internet café is not as secure as your home PC);
- Use additional software that your bank might recommend (firewall or anti-virus software)
- Keep your Web browser up-to-date with the latest patches and versions;
- Never send any account information in an email as this is insecure. Be wary of any e-Mail's from your bank which ask you to send details via email, banks will not do this

INTERNET BANKING IN INDIA

The Reserve Bank of India constituted a working group on Internet Banking. The group divided the internet banking products in India into 3 types based on the level of access granted. They are :

- **Information Only System** :General purpose information like interest rates, branch location, bank products and their features, loan and deposit calculations are provided in the bank's website. There exist facilities for downloading various types of application forms. The communication is normally done through e-mail. There is no interaction between the customer and bank's application system. No identification of the customer is done. In this system, there is no possibility of any unauthorized person getting into production systems of the bank through internet.

•Electronic Information Transfer System:The system provides customer-specific information in the form of account balances, transaction details, andstatement of accounts. The information is still largely of the 'read only' format.Identificationand authentication of the customer is through password. Theinformation is fetched from the bank's application system either in batch modeor off-line. The application systems cannot directly access through theinternet.

•Fully Electronic Transactional System:This system allows bi-directionalcapabilities. Transactions can be submitted by the customer for online update.This system requires high degree of security and control. In this environment,web server and application systems are linked over secure infrastructure. Itcomprises technology covering computerization, networking and security,inter-bank payment gateway and legal infrastructure. It includethe followings:

o ATM

oDEBIT CARDS oSMART CARDS oMOBILE BANKING

THE INDIAN SCENARIO

DRIVERS OF CHANGE: Advantages previously held by large financial institutions have shrunk considerably. The Internet has levelled the playing field and afforded open access to customers in the global marketplace. Internet banking is a cost-effective delivery channel for financial institutions. Consumers are embracing the many benefits of Internet banking. Access to one's accounts at anytime and from anylocation via the World Wide Web is a convenience unknown a short time ago. Thus, abank's Internet presence transforms from status to 'Internet banking status once the bank goes through a technology integration effort to enable the customer to access information about his or her specific account relationship. The six primary drivers of Internet banking includes, in order of primacy are:

- Improve customer access

- Facilitate the offering of more services
- Increase customer loyalty
- Attract new customers
- Provide services offered by competitors
- Reduce customer attrition

EMERGING CHALLENGES

Information technology analyst firm, the Meta Group, recently reported "financial institutions who don't offer home banking by the year 2000 will become marginalized." By the year of 2002, a large sophisticated and highly competitive Internet Banking Market will develop which will be driven by

- Demand side pressure due to increasing access to low cost electronic services.
- Emergence of open standards for banking functionality.
- Growing customer awareness and need of transparency.
- Global players in the fray
- Close integration of bank services with web based E-commerce or even disintermediation of services through direct electronic payments (E- Cash).
- More convenient international transactions due to the fact that the Internet along with general deregulation trends eliminates geographic boundaries.
- Move from one stop shopping to 'Banking Portfolio' i.e. unbundled product purchases. Certainly some existing brick and mortar banks will go out of business. But that's because they fail to respond to the challenge of the Internet. The Internet and its underlying technologies will change and transform not just banking, but also all aspects of finance and commerce. It represents much more than a new distribution opportunity. It will enable nimble players to leverage their brick and mortar presence to improve customer

satisfaction and gain share. It will force lethargic players who are struck with legacy cost basis, out of business-since they are unable to bring to play in the new context.

E-BANKING WORLD WIDE

Since its inception, Internet banking has experienced strong and sustained growth. World Bank report on leapfrogging in e-finance pointed out that the three countries with impressive progress in information technology in this sense are Estonia, Republic of Korea and Brazil. Creation of the world's leading electronic banking systems has been done at a remarkably low cost compared to other world-class internet banks.

In the European Union, 60 million people, representing 18 per cent of the adult population, use online banking. In France, the number of online banking accounts is recording an annual growth rate of 75 per cent. However, Estonia is a country that has become a leader in Internet banking (which now reaches 18 per cent of the population), not only among Eastern European countries but in world rankings, through a combination of easy to-use software, free-of-charge transactions and behavior changes resulting from the influence of the Nordic countries' IT culture on Estonia.

A sector in which Latin America is seen to be performing better than in other industries is online retail banking. Growth in this area has been driven by traditional banks, which have used the online channel to generate customer loyalty and improve their operating margins. Two Brazilian banks, Bradesco and Banco do Brasil; have thus achieved more than 4 million online customers each. Mexico is another leader of Internet banking in Latin America. It adopted legislation providing for the development of both E-Commerce and e-finance. In Mexico, the number of online bank users more than tripled from 700,000 in 2000 to 2.4 million in 2001, and it could reach 4.5 million in 2005 (E-Marketer 2002b). One reason for the success of Latin American banks' online ventures seems to be the attention they have paid to providing retail customers with multiple ways to access their accounts (Internet, telephone, wireless). However, given that the share of the total population that actually has a bank account is relatively small, the expansion of Latin American online banking may be facing a bottleneck.

Compared with overall Internet usage estimated at 4.4 million in Australia, the major banks together have attracted only 1.2 million to online banking. The Internet is a global phenomenon and so is e-finance. Its deployment is not limited to developed countries, and indeed some developing countries – such as India and the Republic of Korea – are experiencing particularly strong growth in E-Banking. In Asia one of the most impressive records has been achieved by the Republic of Korea. The Republic of Korea is leading in online brokerage and in mobile banking. In South-East Asia Internet banking is also developing rapidly in Thailand, Malaysia, and Singapore and to a lesser extent, in the Philippines.

In Bangladesh there is a large gap between the computerization of foreign banks and that of local commercial banks and as regards the state of their intra - and inter-branch online networks. However, 75 per cent of local banks are planning to introduce E-Banking, which implies very dynamic improvements. Apart from North and South Africa the Sub Saharan Africa is the region that is seriously lagging behind in Internet banking, although it is giving to the rest of the world the good example of microfinance developments.

SCOPE OF THE STUDY

- Area is restricted to only NOIDA because due to the time constraint and not able to visit all the branches in other cities or states.
- All the classes of the customers were taken into consideration.
- This study was covered E-Banking service sector.
- This is a realistic source directly collected from the customers of Bank.

OBJECTIVES OF THE STUDY

- To study about the factors that affect the customer perception towards e-banking of HDFC and ICICI bank.
- To know about the current and future prospects of E-Banking to the customers.
- To find out the major problems faced by the customers while using e-banking services.

METHODOLOGY

Methodology is the method followed while conducting the study on a particular project. Through this methodology a systematic study is conducted on the basis of which the basis of a report is produced. It is a written game plan for conducting research. Research methodology has many dimensions. It includes not only the research methods but also considers the logic behind the methods used in the context of the study and explains why only a particular method or technique has been used. It also helps to understand the assumptions underlying various techniques and by which they can decide that certain techniques will be applicable to certain problems and other will not. Therefore in order to solve are search problem, it is necessary to design a research methodology for the problem asthe some may differ from problem to problem. The methodology adopted for studying the objectives was surveying the in-house customers of these two banks in the city.

CHAPTER – 2

INTRODUCTION OF ICICI BANK

ICICI BANK PROFILE

INTRODUCTION

ICICI Bank is India's largest private sector bank with total assets of Rs 7206.95 billion(US\$ 109 billion) at March 31, 2016 and profit after tax Rs. 97.26 billion (US\$1468 million) for the nine months ended March 31, 2016. The Bank has anetwork of 4,450 branches and about 14,354 ATMs in India and presence in 18countries. ICICI Bank offers a wide range of banking products and financial servicesto corporate and retail customers through a variety of delivery channels and throughits specialized subsidiaries and affiliates in the areas of investment banking, life andnon-life insurance, venture capital and asset management. The Bank currently has subsidiaries in the United Kingdom, Russia and Canada, branches in United States,Singapore, Bahrain, Hong Kong, Sri Lanka, Qatar and Dubai International FinanceCentre and representative offices in United Arab Emirates, China, South Africa,Bangladesh, Thailand, Malaysia and Indonesia. Our UK subsidiary has establishedbranches in Belgium and Germany. ICICI Bank's equity shares are listed in India onBombay Stock Exchange and the National Stock Exchange of India Limited and itsAmerican Depositary Receipts (ADRs) are listed on the New York Stock Exchange(NYSE).

The Bank is expanding in overseas markets and has the largest international balance sheet among Indian banks. ICICI Bank now has wholly owned subsidiaries, branches and representatives offices in 19 countries, including an offshore unit in Mumbai. This includes wholly owned subsidiaries in Canada, Russia and the UK (the subsidiary through which the Hi save savings brand is operated), offshore banking units in Bahrain and Singapore, an advisory branch in Dubai, branches in Belgium, Hong Kong and Sri Lanka, and representative offices in Bangladesh, China, Malaysia, Indonesia, South Africa, Thailand, the United Arab Emirates and USA. Overseas, the Bank is targeting the NRI (Non-Resident Indian) population in particular.

ICICI reported a 1.15% rise in net profit to 1,014.2₹ crore on a 1.29% increase in total income to 9,712.31 crore in Q2 September 2008 over Q2 September 2007. The bank's CASA ratio increased to 30% in 2008 from 25% in 2007.

ICICI Bank is one of the Big Four Banks of India, along with State Bank of India, Punjab National Bank Bank of India and Canara Bank — its main competitors.

Vision:

To be the leading provider of financial services in India and a major global bank.

Mission:

We will leverage our people, technology, speed and financial capital to:

- Be the banker of first choice for our customers by delivering high quality, world-class products and services.
- Expand the frontiers of our business globally.
- Play a proactive role in the full realisation of India's potential.
- Maintain a healthy financial profile and diversify our earnings across businesses and geographies.
- Maintain high standards of governance and ethics.
- Contribute positively to the various countries and markets in which we operate.
- Create value for our stakeholders.

HISTORY

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 1954, The Industrial Credit and Investment Corporation of India Limited (ICICI) was incorporated at the initiative of World Bank, the Government of India and representatives of Indian industry, with the objective of creating a development financial institution for providing medium-term and long-term project financing to Indian businesses. In 1994, ICICI established Banking Corporation as a banking subsidiary. Formerly known as Industrial Credit and Investment Corporation of India, ICICI Banking Corporation was later renamed as 'ICICI Bank Limited'. ICICI founded a separate legal entity, ICICI Bank, to undertake normal banking operations - taking deposits, credit cards, car loans etc. In 2001, ICICI acquired Bank of Madura (est. 1943). Bank of Madura was a Chettiar bank, and had acquired Chettinad Mercantile Bank (est. 1933) and Illanji Bank (established 1904) in the 1960s. In 2002, The Boards of Directors of ICICI and ICICI Bank approved the reverse merger of ICICI, ICICI Personal Financial Services Limited and ICICI Capital Services Limited, into ICICI Bank. After receiving all necessary regulatory approvals, ICICI integrated the group's financing and banking operations, both wholesale and retail, into a single entity. At the same time, ICICI started its international expansion by opening representative offices in New York and London. In India, ICICI Bank bought the Shimla and Darjeeling branches that Standard Chartered Bank had inherited when it acquired Grindlays Bank.

In 2003, ICICI opened subsidiaries in Canada and the United Kingdom (UK), and in the UK it established an alliance with ~~Lloyds TSB~~. It also opened an Offshore Banking Unit (OBU) in Singapore and representative offices in Dubai and Shanghai. In 2004, ICICI opened a representative office in Bangladesh to tap the extensive trade between that country, India and South Africa. In 2005, ICICI acquired Investitsionno-Kreditny Bank (IKB), a Russia bank with about US\$4mn in assets, head office in Balabanovo in the Kaluga region, and with a branch in Moscow. ICICI renamed the bank ICICI Bank Eurasia. Also, ICICI established a branch in Dubai International Financial Centre and in Hong Kong. In 2006, ICICI Bank UK opened a branch in Antwerp, in Belgium. ICICI opened representative offices in Bangkok, Jakarta, and Kuala Lumpur. In 2007, ICICI amalgamated Sangli Bank, which was headquartered in Sangli, in Maharashtra State, and which had 158 branches in Maharashtra and another 31 in Karnataka State. Sangli Bank had been founded in 1916 and was particularly strong in rural

areas. With respect to the international sphere, ICICI also received permission from the government of Qatar to open a branch in Doha. Also, ICICI Bank Eurasia opened a second branch, this time in St. Petersburg. In 2008, The US Federal Reserve permitted ICICI to convert its representative office in New York into a branch. ICICI also established a branch in Frankfurt. In 2009, ICICI made huge changes in its organization like elimination of loss making department and retrenching outsourced staff or renegotiate their charges in consequent to the recession. In addition to this, ICICI adopted a massive approach aims for cost control and cost cutting. In consequent of it, compensation to staff was not increased and no bonus declared for 2008-09.

On 23 May ICICI Bank announced that it would merge with Bank of Rajasthan through a share-swap in a non-cash deal that values the Bank of Rajasthan at about 3,000 crore. ICICI announced that the merger expand ICICI Bank's branch network by 25%.

On 18h October 2010, ICICI will inaugurate I-Express, an instant cross-border money transfer option for Non-Resident Indians (NRIs). This service will be available through the ICICI Bank's select partners in the Gulf Cooperation Council.

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.

In October 2001, the Boards of Directors of ICICI and ICICI Bank approved the merger of ICICI and two of its wholly-owned retail finance subsidiaries, ICICI Personal Financial Services Limited and ICICI Capital Services Limited, with ICICI Bank. The merger was approved by shareholders of ICICI and ICICI Bank in January 2002, by the High Court of Gujarat at Ahmadabad in March 2002, and by the High Court of Judicature at Mumbai and the Reserve Bank of India in April 2002. Consequent to the merger, the ICICI group's financing and banking operations, both wholesale and retail, have been integrated in a single entity.

ICICI Bank has formulated a Code of Business Conduct and Ethics for its directors and employees.

ICICI net banking / internet banking offers various facilities and has been registering increasing number of customers as well. The facility of net banking is immense and hence it offers one of the largest customer bases. Some e-banking facilities provided by ICICI bank are as follows-

- Transfer Funds Online.
- Account-2-Card Fund Transfer.
- Link your Bank/Card/De-mat Accounts.
- Use your Debit Card Online.
- Pre-paid Mobile Recharge.
- Pay your Utility Bills.
- Send a Smart Money Order.
- Open Fixed Deposits and Recurring Deposits.
- Order a Demand Draft / Pay Order.
- Subscribe for Mobile Banking.
- Request a Cheque Book.
- Request a change of address.
- Stop Payment Request.

- Request a Debit Card.
- Monthly Bank Account Statement by E-mail.
- Re-issue/Upgrade of ATM/Debit Card.
- Link Bank Accounts to ATM/Debit Card.
- Renewal / Premature Closure of FD/RD.
- De-block/Activate ATM/Debit Card.
- Secure Mailbox.
- Request a Duplicate Physical Bank Statement

ICICI Bank is India's second-largest bank with total assets of Rs. 3,562.28 billion (US\$ 77 billion) at December 31, 2009 and profit after tax Rs. 30.19 billion (US\$ 648.8 million) for the nine months ended December 31, 2009. The Bank has a network of 1,723 branches and about 4,883 ATMs in India and presence in 18 countries. 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 and affiliates in the areas of investment banking, life and non-life insurance, venture capital and asset management. The Bank currently has subsidiaries in the United Kingdom, Russia and Canada, branches in United States, Singapore, Bahrain, Hong Kong, Sri Lanka, Qatar and Dubai International Finance Centre and representative offices in United Arab Emirates, China, South Africa, Bangladesh, Thailand, Malaysia and Indonesia. Our UK subsidiary has established branches in Belgium and Germany. ICICI Bank's equity shares are listed in India on Bombay Stock Exchange and the National Stock Exchange of India Limited and its American Depositary Receipts (ADRs) are listed on the New York Stock Exchange (NYSE).

Subsidiaries

- I-Express, an instant cross-border money transfer option.
- ICICI Lombard
- ICICI Prudential

Acquisition

- **2005** - Investitsionno-Kreditny Bank (IKB), a Russian bank
- **2007** - Sangli Bank , Maharashtra State
- **23 May** - Bank of Rajasthan

Recognition

The Brand Trust Report, launched in 2011, has ranked ICICI in the 15th place as the most trusted brand of India.

ICICI BANK SERVICES

ICICI net banking / internet banking

ICICI net banking / internet banking offers various facilities and has been registering increasing number of customers as well.

The facility of netbanking is immense and hence it offers one of the largest customer bases.

You can get the luxury of linking many accounts with the same customer id apart from that you can view all the transactions online as well. You can transfer the funds to other accounts of the same bank or to other banks as well. Official website for accessing icici net banking / internet banking is www.icicibank.com.

Apart from that, you can transfer funds from bank account to credit cards. If in case you have done any transactions through your credit card, there will be auto debit. If you want to see the account statement, you don't need to go to the bank, instead you can see through email as well. One of the best things again relates with the fact that you can file online taxes.

Now all your important transactions can be done online and are just a click away as well. Since the bank offers so many facilities as a result it has become one of the preferred choices of the people and it's the love and affection of the people which has made the bank coming up with

innovations to ease the lives of people so that you can have many reasons to opt for icici netbanking / internet banking

MOBILE BANKING: Conducting banking operations using the mobile phone has been fast catching up around the world for its convenience. We have launched mobile services in India to convenience our customers. You can do your banking operations sitting anywhere, anytime. It is discreet, personalized and on your phone. Use it when at a meeting, in a movie hall, while having your Sunday brunch or at any other place you cannot usually expect to get the information you want from your bank. It is an empowering and user friendly mode of accessing your bank account. To get started, take a look at the menu on the left and go through our various services

You can now access the following ICICI Bank services via your mobile phone:

Bank Account	Credit Card	Demat	Loan	Other Services
Funds Transfer*	Balance Details	Holding Enquiry	Provisional Income Tax Certificate	Locate Branch
Bill Payment+	Last Payment Details	Transaction Status	Final Income Tax Certificate	Locate ATM
Balance Enquiry	Payment Due Date	Bill Enquiry	Reset Letter	Phone Banking Number
Last 5 Transactions	Reward Point Status	ISIN Enquiry	Rescheduled Letter	Prepaid Mobile Recharge*
Cheque Book Request			Loan Agreement Copy	Apply for Bank Products
Stop Cheque Request				Status of Service Request Raised
Cheque Status Enquiry				

INSTA BANKING

InstaBanking makes your banking simpler, faster, and more convenient. Through these 5 great channels - Internet Banking, Mobile Banking, ICICI Bank ATMs, Instant Voice Response (IVR) Banking and I Mobile - you can do your day today banking anytime, anywhere.

INTERNET BANKING

ICICI Bank brings convenience and security to your desktop. Now you can check your account balance, transfer funds, download your account statement, and pay bills or even book tickets online, from the comfort of your home or in the middle of a busy day at the office.

Explore the power of simpler and smarter Banking whether you are a Banking, Credit Card, Loan or De-mat customer.

ATM BANKING

Bank 24/7 through a widespread network of ICICI Bank ATMs making life easy and convenient for you. User-friendly graphic screens and easy to follow instructions available in a choice of local languages, makes ATM Banking with ICICI Bank a smoother experience. ICICI Bank's widespread network of ATMs makes it easy and convenient for you to bank 24/7. With over 4,883 + ATMs and 1,626 + branches set up within India, we ensure that you are never too far from an ICICI Bank ATM. User-friendly graphic screens and easy to follow instructions in a choice of local languages, makes ATM Banking with ICICI Bank a smooth experience.

ICICIBank.com also features the easy to access ATM Locator, making it easy for you to find an ICICI Bank ATM in your neighborhood.

The ICICI Bank edge

- Cash withdrawal up to Rs. 25,000/- per day from your account (50,000 for HNI's). Fast Cash option facilitates withdrawal of prefixed amounts; Ultra FastCash allows withdrawal of Rs. 3000/- in one shot.
- Check your ledger balance and available balance.
- Print out your Mini Statement which displays your last 8 transactions and the current balance.
- Deposit Cash / Cheques at all full function ATMs; cash deposited in ATMs will be credited

to the account on the same day if deposited before the clearing and cheques are sent for clearing on the next working day.

- Transfer funds from one account to another linked account in the same branch.
- Change the Personal Identification Number (PIN) of your ATM or Debit card Pay bills, make donations to temples / trusts, buy internet packs, airtime recharges for prepaid mobile phones, etc.
- Request for a cheque book from our ATMs; concerned branch dispatches it to reach you within 10 working days.
- No charge is levied on ICICI Bank customers for transacting through ICICI Bank's ATMs. But, if the minimum quarterly average balance is not maintained in your savings account, first 6 transactions in the quarter are free and thereafter, Rs. 25 per transaction is charged.

I MOBILE

ICICI Bank's I Mobile is a breakthrough innovation in banking that allows you to transfer funds, make your credit card payments, pay utility bills, check your balance and do lots more, for free. So why wait anymore. Just download the I Mobile application on your phone by sending us an SMS and experience I Mobile. . ICICI Bank brings to you the 2nd generation I Mobile that has newer features, smarter interface, quicker navigation and enhanced functionality. ICICI Bank's I Mobile is your answer to banking on the move. The next generation I Mobile is your key to a faster, easier and simplified banking service. Using GPRS enabled on your mobile handset or through SMS, I Mobile helps you to connect directly to your bank account. This Rich Client Based Application needs to be installed on your mobile thereby enabling a single click access to your account.

Services available with i Mobile:

- Payment of utility bills and credit card bills
- Transfer of funds to any bank account
- Payment of insurance premium
- Placement of service request such as ordering of cheque books, bank account statements, cheque status and balance enquiry.

Access the following ICICI Bank services via I Mobile:

Bank Account

Funds transfer

- Bill Payment
- Balance Enquiry
- Last 5 transactions
- Cheque Book Request
- Stop Cheque request
- Cheque status EnquiryCredit Card

- Balance Details
- Last Payment Details
- Payment Due Date
- Reward Point StatusDe-mat A/c
- Holding Enquiry
- Transaction Status
- Bill Enquiry
- ISIN EnquiryLoan A/c
- Provisional IT Certificate
- Final IT Certificate
- Reset Letter
- Rescheduled Letter
- Loan Agreement CopyM Shop
- Prepaid Mobile RechargeOther Services
- Status of Service Request Raised
- Locate US

IVR BANKING

Find answers to all your banking needs from your phone. ICICI Bank's Instant Voice Response (IVR) Banking is free of charge, fully automated and at the same time user-friendly. Just having an ATM PIN for your account and credit card ensures that your transactions are secure.

- Saving A/C
- Credit cards
- De-mat
- BondsOthers

TV BANKING

At ICICI Bank, we've introduced India to an all new way of banking. TV Banking. This pioneering initiative now enables you to get information regarding loans, accounts, deposits and a lot more while you're watching that exciting cricket match or your favorite sitcom.

REVIEW OF LITRETURE

Author Name: Malhotra, Pooja & Singh, B. **Topic:**– Determinants of Internet banking adoption by banks in India **Date:** December, 2010.

This study is an attempt to present the present status of Internet banking in India and the extent of internet banking services offered by Internet banks. In addition, it seeks to examine the factors affecting the extent of Internet banking services. The data for this study are based on a survey of bank websites explored during July 2008. The sample consists of 82 banks operating in India at 31 March 2007. Multiple regression technique is employed to explore the determinants of the extent of Internet banking services. The results show that the private and foreign Internet banks have performed well in offering a wider range and more advanced services of Internet banking in comparison with public sector banks.

Among the determinants affecting the extent of Internet banking services, size of the bank, experience of the bank in offering Internet banking, financing pattern and ownership of the bank are found to be significant. The primary limitation of the study is the scope and size of its sample as well as other variables (e.g. market, environmental, regulatory etc.) which may have an effect on the decision of the banks to offer a wide range of Internet banking services. The purpose of the study is to help fill significant gaps in knowledge about the Internet banking landscape in India. The findings are expected to be of great use to the government, regulators, commercial banks, and other financial institutions, e.g. co-operative banks planning to offer Internet banking, bank customers and researchers. The bankers as well as society at large will come to know where the banks lag in terms of adoption of Internet banking and in providing different products and services. An understanding of the factors affecting the extent of Internet banking services is essential both for economists studying the determinants of growth and for the creators and producers of such technologies. Moreover, this paper contributes to the empirical literature on diffusion of financial innovations, particularly Internet banking, in a developing country, i.e. India.

Author Name: Polaris Software Lab Limited (POLS.BO) **Topic:** Polaris Software and IndusInd Bank launch INTELLECT PRIVACY Internet Banking Security Card, PR Newswire **Date:** May, 21, 2010.

In this study Polaris Software Lab Limited (POLS.BO), a leading Financial Technology Company, launched Intellect(TM) PRIVACY based on state-of-the-art technology and four patents filed by the Indian Institute of Technology Madras. IndusInd Bank has become the first bank in India to implement Intellect(TM) PRIVACY, an online and internet banking security card, for its internet banking customers. The technology will protect customers and banks from practically all kinds of phishing attacks, viz. deceptive e-mail, key/screen logger, brute force/dictionary attacks and Trojans, etc. Intellect PRIVACY uses multi factor, dynamic authentication technology providing for authorizing online banking transactions, in a completely secure platform. Commenting on the innovation, Professor L S Ganesh, Coordinator of the programme, said, "At IIT Madras, the Department of Computer Science and Engineering and the Department of Management

Studies got particularly interested in designing an internet security technology that is cost efficient and easy to use in a rapidly growing e-commerce scenario, and transferring it commercially. We chose the Cost-Usability-Security(CUS) approach to arrive at a solution and Polaris Software created an eminently usable application for the banking industry. IndusInd Bank, which was looking for providing greater security for web based transactions, became the first organization to adopt it." Intellect PRIVACY is a simple plastic card that customers can use to generate a one-time password (OTP) for carrying out any kind of online banking transaction including the sign on. Banks can issue booklets containing a desired number of cards that would last many transactions. The card has no pilferage value by itself and customers can easily manage its life cycle, including making a request for a new booklet and reporting loss of cards through online banking.

Author Name: Azouzi, D. **Topic:** -The Adoption of Electronic Banking in Tunisia, Journal of Internet Banking and Commerce **Date:** June, 09 2009.

This paper aims to check if the current and prompt technological revolution altering the whole world has crucial impacts on the Tunisian banking sector. Particularly, this study seeks some clues on which we can rely in order to understand the customers' behavior regarding the adoption of electronic banking. To achieve this purpose, an empirical research is carried out in Tunisia and it reveals that panoply of factors is affecting the customers' attitude toward e-banking. For instance; age, gender and educational qualifications seem to be important and they split up the group into electronic banking adopters and traditional banking defenders and so, they have significant influence on the customers' adoption of e-banking. Furthermore, this study shows that despite the presidential incentives and in spite of being fully aware of the e-banking's benefits, numerous respondents are still using the conventional banking. It is worthy to mention that the fear of loss because of transactions errors or hackers plays a significant role in alienating Tunisian customers from online banking.

Author Name: B. Dizon, J.A. **Topic:** -Special Feature: Electronic Banking **Date:** January, 22, 2009.

In this study they have founded that while big banks still conduct the bulk of their business in brick and mortar bank branches, the finance sector has been increasingly investing on e-banking facilities to offer 24-hour, queue-free services to their regular clients,

whether through ATM machines, mobile phones or the Internet. "E- Banking's appeal is primarily its convenience. Clients nowadays want instant results; they don't want to wait anymore," said Francisco M. Caparros, Jr., senior vice-president of Asia United Bank and president of Banc Net. It's also turned out to be a more efficient way to process transactions, as e-banking does away with most of the paperwork that clients have to accomplish. "A lot of people don't like filling forms," Mr. Caparros added. "Online banking, in particular, relies on user names and passwords which need to be protected," said Ferdinand G. La Chica, first vice- president and marketing group head for Sterling Bank of Asia. These anti- theft barriers are at time s supplemented by transaction passwords and "tokens", often a keychain-like device that is issued to the client and generates random, one-time passwords to enable him to log into his account online. Last year, the Rural Bank Association of the Philippines announced that its members are looking to appoint local merchants like sari-sari stores as third party agents where consumers can open new accounts and make large payments. Such informal outlets will enable banks to reach out to small-income businesses and individuals, particularly those in the agrarian sector, most of who are based outside the city center.

Name:Uppal, R.K. & Chawla, R.**Topic:**—E-Delivery Channel-Based Banking Services: An Empirical Study. Institute of Chartered Financial Analysts of India (Hyderabad)l.**Date:**Feb,06,2009.

This study highlights customer perceptions regarding e-banking services. A survey of 1,200 respondents was conducted in October 2008 in Ludhiana district, Punjab. The respondents were equally divided among three bank groups namely, public sector, private sector and foreign banks. The present study investigates the perceptions of the bank customers regarding necessity of e-banking services, quality of e-banking services, bank frauds, future of e-banking, preference of bank customers regarding banks, comparative study of banking services in various bank groups, preferences regarding use of e-channels and problems faced by e-bank customers. The major finding of this study is that customers of all bank groups are interested in e-banking services, but at the same time are facing problems like, inadequate knowledge, poor network, lack of infrastructure, unsuitable location, misuse of ATM cards and difficulty to open an account. Keeping in mind these problems faced by bank customers, this paper frames some strategies like customer education, seminars/meetings, proper network and infrastructure facilities, online shopping facilities, proper working and installation of ATM machines, etc., to enhance e-banking services. Majority of professionals and business class customers as well as highly educated

and less educated customers also feel that e-banking has improved the quality of customer services in banks.

Author Name:Reeti, Sanjay, and Malhotra, A.**Topic:**“The Customers’ perspective s regarding e-banking in an e merging economy.”**Date:**June,28, 2009.

Stated about the Customers’ perspective s regarding e-banking in an e merging economy. So that, the author determining various factors affecting customer perception and attitude towards and satisfaction with e- banking is an essential part of a bank's strategy formulation process in an emerging economy like India. To gain this understanding in respect of Indian customers, the study was conducted on respondents taken from the northern part of India. The major findings depict that customers are influenced in their usage of e- banking service s by the kind of account they hold, their age and profession, attach highest degree of usefulness to balance enquiry service among e -banking services, consider security & trust most important in affecting their satisfaction level and find slow transaction speed the most frequently faced problem while using e-banking.

Author Name:Hsun, K.S.**Topic:**coherence of the financial service sector and adopts different observational variables to identify innovation capital (training and R&D density)and process capital (IT system sufficiency).**Date:**March,22,2008.

This study considers the coherence of the financial service sector and adopts different observational variables to identify innovation capital (training and R&D density) and process capital (IT system sufficiency). The results show that human capital has a direct impact on both innovation capital and process capital, which in turn affect customer capital; while finally, customer capital affects business performance. In addition, there is a negative relationship between process capital and customer capital in the financial service sector. It suggests that in the financial service sector, customer satisfaction relies on a sufficient degree of training and R&D density. Intemperate investment on the support of e-banking operation systems may not be a good answer.

Author Name:Laukkanen, P., Sinkkonen, S. &Laukkanen, T.**Topic:**–Consumer resistance to internet banking: postponers, opponents and rejecters**Date:** September,11,2008.

The purpose of this paper is to further the understanding of innovation resistance by dividing internet banking non-adopters into three groups based on their intentions to use the innovation. Thereafter, the aim is to identify how the resistance differs in these customer groups. This study identifies three groups of internet banking non-adopters, namely postpones, opponents and rejecters. The data were collected by conducting an extensive postal survey among the retail banking customers in Finland who had not adopted internet banking. The measurement development was based on consumer resistance theory and the earlier literature on internet banking. Principal component analysis was used to classify the resistance items into five adoption barriers derived from the earlier literature. Thereafter, analysis of variance was used to analyze the statistical differences in resistance to internet banking between the three groups. Significant differences were identified between the groups explored. The resistance of the rejecters is much more intense and diverse than that of the opponents, while the postpones show only slight resistance. The results also indicate that psychological barriers are even higher determinants of resistance than usage and value, which are constructs related to ease-of-use and usefulness determining acceptance in the traditional technology acceptance model. Moreover, the findings highlight the role of self-efficacy in bank customers' risk perceptions to internet banking. This study provides further understanding of what inhibits internet banking adoption by comparing three non-adopter groups with respect to their resistance to internet banking. It also has implications for management in overcoming non-adopters' resistance to the innovation.

Author Name: Routray **Topic:** Wireless ATM: A Technological Framework to M-Banking **Date:** August 19, 2008.

The study describes that are becoming enablers for organizations to conduct business more effectively and efficiently. One of the most effective applications is mobile banking (m-banking). For any application to gain recognition technological advancements play a vital role. To make m-banking application a success bandwidth management is an important issue. The increased flexibility and mobility feature of wireless ATM and its bandwidth on demand function is motivating a large number of carriers towards deployment of the WATM networks. But there are certain issues which are required to be addressed in WATM. The issues are cost effective planning of network, location management and handover

management. In this paper we have suggested and evaluate d a technological framework for the m-banking application using wireless ATM which optimizes the bandwidth usage a nd provides a n effective handover management. Simulation results show that the resultant framework is very effective in handling the bandwidth and the handover issue in wireless ATM and provides an effective WATM framework model.

Author Name:Malhotra, P. & Singh, B.**Topic:**–An analysis of Internet banking offerings and its determinants in India **.Date:** November 07, 2007.

Stated about this research tells us that the larger banks, banks with younger age, private ownership, higher expenses for fixed assets, higher deposits and lower branch intensity evidence a higher probability of adoption of this new technology. Banks with lower market share also see the Internet banking technology as a means to increase the market share by attracting more and more customers through this new channel of de livery. Further, the adoption of Internet banking by other banks increases the probability that a decision to adopt will be made.An understanding of the factors affecting this choice is essential both for economists studying the determinants of growth and for the creators and producers of such technologies. From this perspective, understanding the factors determining the adoption of technology becomes highly relevant from the policy point of view. Moreover, the studies on the adoption of financial innovations a re related to developed markets, e.g. US or European banking markets. Hence, this paper contributes to the empirical literature on diffusion of financial innovations, particularly Internet banking, in a developing country.

Author Name:Shah &Braganza**Topic:**–A Survey of Critical Success Factors in e-banking**.Date:**April 18, 2007.

This survey indicates the Critical Success Factors in e- banking and the author suggest in this article that the organizational factors, which are critical to the success of e -banking, are investigated. Different pieces of literature report different factors as key to success and generally based on subjective, perceptual data. A synthesis of existing literature is a basis for survey questions. The data was collected from UK based financial sector organizations who are offering their services on electronic channels, using postal questionnaires. The top factors found to be most critical for the success in e-banking are: quick responsive products/services,

organizational flexibility, services expansion, systems integration and enhanced customer service. An important lesson from this research is that organizations need to view the e-banking initiative as a business critical area rather than just a technical issue. They need to give attention to internal integration, which may include channels, technology and business process integration, and improving the overall services to their customers.

Author Name:Bauer, Malik & Falk**Topic:**–Measuring the quality of e banking portals**Date:**July 27, 2007.

This article reviews the measuring the quality of E-Banking portals. In the internet economy, the business model of web portals has spread rapidly over the last few years. Despite this, there have been very few scholarly investigations into the services and characteristics that transform a web site into a portal as well as into the dimensions that determine the customer's evaluation of the portal's service quality. Based on an empirical study in the field of e-banking the authors validate a measurement model for the construct of web portal quality based on the following dimensions: security and trust, basic services quality, cross-buying services quality, added value, transaction support and responsiveness. Findings – The identified dimensions can reasonably be classified into three service categories: core services, additional services, and problem-solving services. Originality/value – The knowledge of these dimensions as major determinants of consumer's quality perception in the internet provides banks a promising starting point for establishing an effective quality management for their e-businesses.

Author Name:Picado, Gonzalez&Eckelman**Topic:**–Customer Satisfaction Using QFD**Date:**October 20,2004.

This study investigated the customer satisfaction using QFD and a research on service quality and customer satisfaction has become significant in the service industries. This study develops a case study that considers both external and internal service management issues and subsequent service innovations based on the framework of quality function deployment (QFD). The application of the customer window quadrant (CWQ) and the action plan matrix in the analysis of customer and service elements constitute a different approach for QFD. Some benefits and disadvantages of the QFD process are discussed as

compared to extant service quality and customer paradigms. Finally, suggestions and directions are offered for future applications, with particular interest in the e-bank service management issues.

Author Name:Nitsure, R.R.**Topic:**—E-Banking: Challenges and Opportunities

Date:December 25, 2004.

This article indicates the E-banking Challenges and opportunities lies in the banking industry. E-banking has the potential to transform the banking business as it significantly lowers transaction and delivery costs. This paper discusses some of the problems developing countries, which have a low penetration of information and telecommunication technology, face in realizing the advantages of e-banking initiatives. Major concerns such as the 'digital divide' between the rich and poor, the different operational environments for public and private sector banks, problems of security and authentication, management and regulation, and inadequate financing of small and medium scale enterprises (SMEs) are highlighted.

Author Name:Asghar**Topic:**—Banking In a Cloud of Electrons**Date:**March 17, 2004.

The study depicts that online banking and the web channel are here to stay. Financial services rely on multiple distribution channels and e-banking represents the channel of the future. Success stories around e-banking have taken shape through a mix of innovation and experience. The financial services sector needs to apply both these factors to their advantage to produce the desired results. Win-win implementation of e-banking not only requires high Internet penetration rates and stable infrastructures, but more importantly, for companies to realize the powerful revenue opportunity of this business arm vis-à-vis the traditional brick and mortar system of operation. Therefore, it is imperative that all e-banking implementations are seamlessly integrated with the core 'traditional' services thereby making the online experience truly holistic for the customer.

Author Name:Anthony**Topic:**—User Friendly E-Banking: A Survey of Online E-Banking Retail Initiatives**Date:**September 20, 2004..

This article discusses the importance of usability within the E-Banking sector and identifies common usability problems and ways to resolve them. It is widely recognized that online banking provides more revenue per customer and costs less per transaction than any other channel, including phone banking. Encouraging news from Forrester Research states that by 2007 the number of Europeans banking online will double to 130 million. Based on the principles of Human Computer Interaction (HCI), web usability has become a recognized success factor for all e-business, including online banking. Users most enjoy those sites that provide clear information, easy navigation and an engaging customer experience. Yet people will naturally gravitate to the ones which are easiest to use and offer the best service. Banks aiming to profit the most from the increase in online banking volumes should consider the usability and accessibility of all aspects of their site to welcome them.

Author Name: Veneeva **Topic:**—E-Banking (Online Banking) and Its Role in Today's Society, **Date:** April 27, 2006.

This article describes that world is changing at a staggering rate and technology is considered to be the key driver for these changes around us. Many activities are handled electronically due to the acceptance of information technology at home as well as at workplace. Internet can be seen as a truly global phenomenon that has made time and distance irrelevant to many transactions. The evolution of electronic banking started from the use of automatic teller machines (ATM) and has passed through telephone banking, direct bill payment, electronic fund transfer and the revolutionary online banking (Alter, 2002). The future of electronic banking according to some is the acceptance of WAP enabled banking and interactive-TV banking (Petrus & Nelson, 2006). But it has been forecasted that among all the categories, online banking is the future of electronic financial transaction. The rise in the e-commerce and the use of internet in its facilitation along with the enhanced online security of transactions and sensitive information has been the core reasons for the penetration of online banking in everyday life.

Author Name: Maumba **Topic:**— Digital Financial Service Delivery to Poor Communities in, **Date:** January 03, 2006.

This study depicts that most banks throughout the world, ICT have become the back bone of financial service delivery and finance networks have shifted from paper-based to the digital mode. However, digital financial service delivery confronts a number of challenges regarding its efficacy in closing the financial divide affecting the poor. Although e-banking is considered an inexpensive way to reach clients, its accessibility is hindered by a number of factors including poor Internet penetration, lack of e-banking awareness and customer inflexibility to new technology. In developing countries most of which are characterized by extreme poverty and poor infrastructure, universal Internet-based service provision remains indefinable. Further, the author argues that developing nations need to improve educational standards and computer literacy prior to broad-based adoption and constructive use of Internet services. As result, the poor and unemployed remain disadvantaged in terms of access to rural Internet based services. Real access to well-functioning and efficient financial services has the potential to empower poor communities.

Author Name: Kamiya **Topic:** How E-Banking Can Ease Your Life **Date:** August 16, 2006.

This article shows that Indian banks are trying to make your life easier. Not just bill payment, you can make investments, shop or buy tickets and plan a holiday at your fingertips. In fact, sources from ICICI Bank tell us, "Our Internet banking base has been growing at an exponential pace over the last few years. Currently around 78 per cent of the bank's customer base is registered for Internet banking." To get started, all you need is a computer with a modem or other dial-up device, a checking account with a bank that offers online service and the patience to complete about a one-page application--which can usually be done online. You can avail the following services: Bill payment Services, Fund Transfer, Credit Card, Internet shopping, and Investment through Internet etc. Due to the Internet banking the life of an individual becomes easy and raises the standard of life of the humans.

Author Name: Awamleh **Topic:** Diffusion of Internet Banking amongst educated consumers in a high income Non-OECD country **Date:** July 29, 2007.

This study analyses the internet banking channels and service preferences of educated banking consumers in the UAE and examines the factors influencing the intention to adopt or to continue the use of internet banking among both users and non users of internet banking. It is shown that although the banking sector in the UAE is a regional leader, internet banking in the UAE is yet to be properly utilized as a real added value tool to improve customer relationship and to attain cost advantages. The Technology Acceptance Model (TAM) was used to identify factors influencing the intention to adopt and continued use of internet banking customers. Data was collected from internet banking users and potential users in the United Arab Emirates and factor analyses and multiple regression analyses were conducted to examine the data. Relative usefulness is introduced as one of the factors and is defined as the degree to which a new technology is better than existing ones. There is a significant difference between users and non-users on six of the seven factors identified. Further, it was revealed that relative usefulness, perceived risk, computer efficacy and image had a significant impact on continued usage of internet banking for IB Users, while relative usefulness and result demonstrability were the only ones significant for Non-users of internet banking. The effects of age, gender, income, and e-commerce users also explored. Result demonstrability is significant for all categories of non-users except for those with income below AED 7,000. Implications of results were discussed, and future research directions outlined.

CHAPTER - 3

RESEARCH METHODOLOGY

What is Research...?

Research is defined as human activity based on intellectual application in the investigation of matter. The primary purpose for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe.

The term research is also used to describe an entire collection of information about a particular subject.

Methodology

is the method followed while conducting the study on a particular project. Through this methodology a systematic study is conducted on the basis of which the basis of a report is produced.

It is a written game plan for conducting Research. Research methodology has many dimensions. It includes not only the research methods but also considers the logic behind the methods used in the context of the study and explains why only a particular method or technique has been used. It also helps to understand the assumptions underlying various techniques and by which they can decide that certain techniques will be applicable to certain problems and other will not. Therefore in order to solve a research problem, it is necessary to design a research methodology for the problem as the some may differ from problem to problem. The methodology adopted for studying the objectives was surveying the in-house customers of these two banks in the city .

4.1 TITLE

The title of this report is **“Satisfaction from E-banking services. A comparative study ofHDFC and ICICI bank.”**

4.2 OBJECTIVES OF THE STUDY

- To study about the factors that affects the customer perception towards e- banking ofICICI bank.
- To know about the current and future prospects of E-Banking to the customers.
- To find out the major problems faced by the customers while using e-banking services.

NATURE

The methodology adopted to achieve the project objective involved descriptive research method. The information required for fulfilling the objective of study was collected from various primary and secondary sources.

4.3 TYPE OF RESEARCH

This study is **DESCRIPTIVE**in nature. It helps in breaking vague problem into smaller and precise problem and emphasizes on discovering of new ideas and insights.

RESEARCH DESIGN

Research design constitutes the blue print for the collection, measurement and analysis of data. The present study seeks to identify the extent of preferences of E- Banking over traditional banking among service class. The research design is descriptive in nature. The research has been conducted on customers of ICICI Bank within NOIDA. For the selection of the sample, convenient sampling method was adopted and an attempt has been made to include all the age groups and gender of every class.

RESEARCH INSTRUMENT

The instrument used for gathering data was questionnaire. To get further insight in to the research problem, interview regarding their buying practices too was made. This was done to crosscheck the authenticity of the data provide d. To supplement the primary data and to facilitate the process of drawing inference, secondary data was collected from published sources like magazines, journals, newspapers etc.

4.4 SAMPLE DESIGN AND SIZE

In this research project Descriptive research design is used. Judgment and Convenience sampling method will be used to get the information about online banking. This method is used because we are interested in exploring gender, age, or occupation disparities in terms of online banking in the population. For conducting this research, a structured questionnaire is prepared and sample of 150 customers is taken from ICICI bank.

SAMPLING SIZE

It indicates the numbers of people to be surveyed. Though large samples give more reliable results than small samples but due to constraint of time and money, the sample size was restricted to 150 respondents. The respondents belong to different income group and profession.

SAMPLING UNIT

It defines the target population that will be sampled i.e. it answers who is to be surveyed. In this study, the sampling unit is the people of ICICI bank, NOIDA U.P.

TOOLS AND TECHNIQUES OF ANALYSIS:

The data so collected will be analyzed through the application of statistical techniques, such as bar graphs and pie charts.

4.5 DATA COLLECTION

Keeping in view the nature of requirements of the study to collect all the relevant information regarding the extent of awareness of the customers using E-banking facilities offered by ICICI bank, direct personal interview method with structured questionnaire was adopted for the collection of primary data. Secondary data has been collected through the various internet sites by surfing on Internet and from the records available with the bank.

SOURCE OF DATA

Following are the methods of sources of data:

SECONDARY DATA:

- Articles on E-Banking taken from journals magazines published from time to time.
- Through internet.

PRIMARY DATA:

Questionnaire was used to collect primary data from respondents. The questionnaire was structured type and contained questions relating to different dimensions of e- banking preferences among service class such as level of usage, factors influencing the usage of e- banking services, benefits accruing to the users of e-banking services, problems encountered. An attempt was also made to elicit reasons for its non-usage. The questions included in the questionnaire were open-ended, dichotomous and offering multiple choices.

NEED OF THE STUDY

- To determining growth direction of online banking service.
- Promoting E-banking service s in banking industry.
- Customer perception will be taken into consideration about the internetbanking.

HYPOTHESIS

EASE OF USE

Ho: Ease of use does not influence the use of E Banking services.H1: Ease of use does influence the use of E Banking services.

DIRECT ACCESS

Ho: Direct Access does not influence the use of E Banking services.H1: Direct Access does influence the use of E Banking services.

FRIENDS/RELATIVES

Ho: Friends/Relatives do not influence the use of E Banking service s.H1: Friends/Relatives do influence the use of E Banking services.

4.6 SCOPE OF THE STUDY

- Area is restricted to only NOIDA because due to the time constraintand not able to visitall the branches in other cities or states.
- All the classes of the customers were taken into consideration.
- This study was covered E-Banking service sector.
- This is a realistic source directly collected from the customers of Bank.

4.7 Limitation of Study

Every research is conducted under some constraints and this research is not an exception.Limitations of this study are as follows:-

- As a research is based on a sample, therefore, the findings may not reveal the factual information about the research problem, though an utmost care will be taken to select a truly representative sample.

- There may be some bias in the responses of the respondents which cannot be ruled out fully.
- Sudden change in the e-banking practices during the course of research can affect the results.
- The study is limited to areas of NOIDA only.
- The sample size of only 150 was taken from the large population for the purpose of study, so there can be difference between results of sample from total population.
- People were reluctant to go in to details because of their busy schedules.
- Merely asking questions and recording answers may not always elicit the actual information sought.
- Due to continuous change in environment, what is relevant today may be irrelevant tomorrow.

CHAPTER – 5

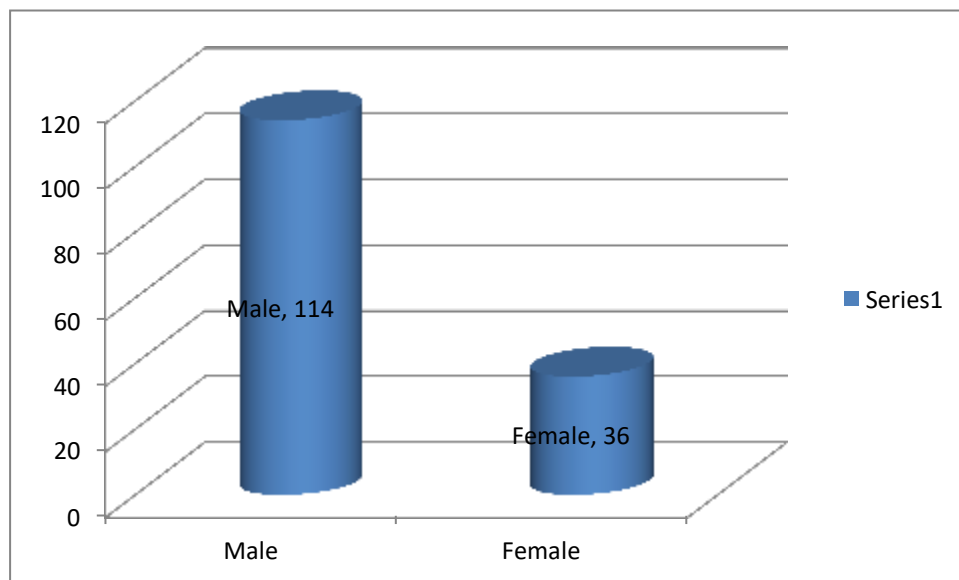
DATAANALYSIS &INTERPRETATION AND

FACTS & FINDINGS

DATA ANALYSIS & INTERPRETATION

- Gender**

Male	114
Female	36
Total	150

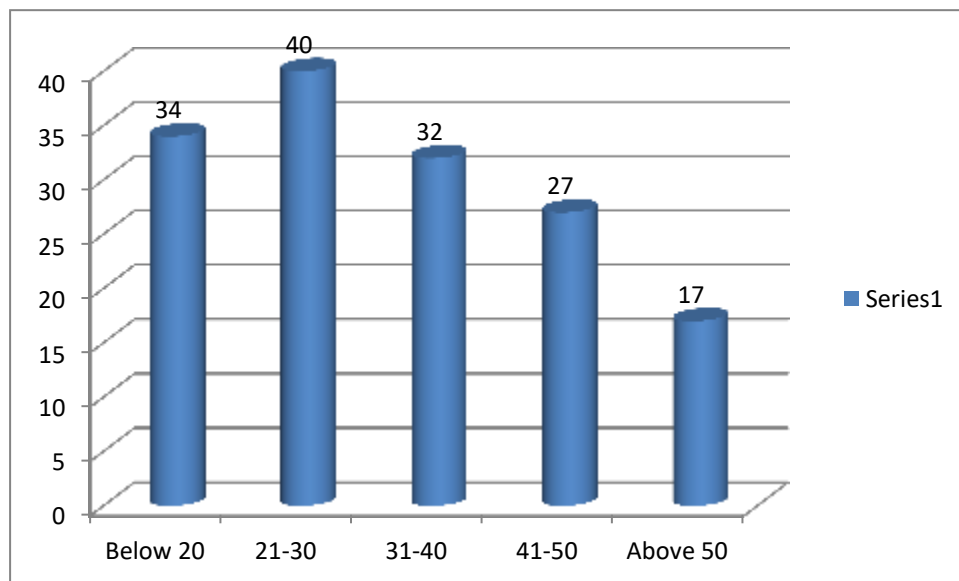


Interpretation: The result shows that majority of respondents i.e. 76% are males who are using the E-banking services and 24% are the female who are using E-banking services. Female are not

using this service because they have less knowledge about the internet and they trust face to face interaction more. So it shows that E-banking is more famous among male.

• Age

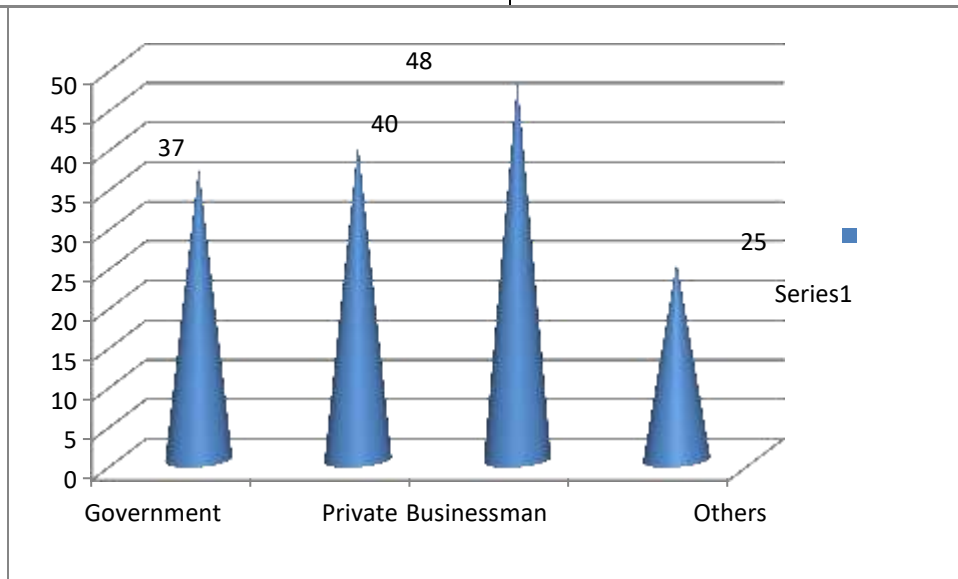
Age	Total No.
Below 20	34
21-30	40
31-40	32
41-50	27
Above 50	17
Total	150



Interpretation: The result shows that majority of respondents i.e. 27% falls under the category of 21-30 years and 23% falls under below 20 years. It shows that E-banking is mainly famous among youngsters as they are the major users of E-banking and least comes under above 50 years.

OCCUPATION

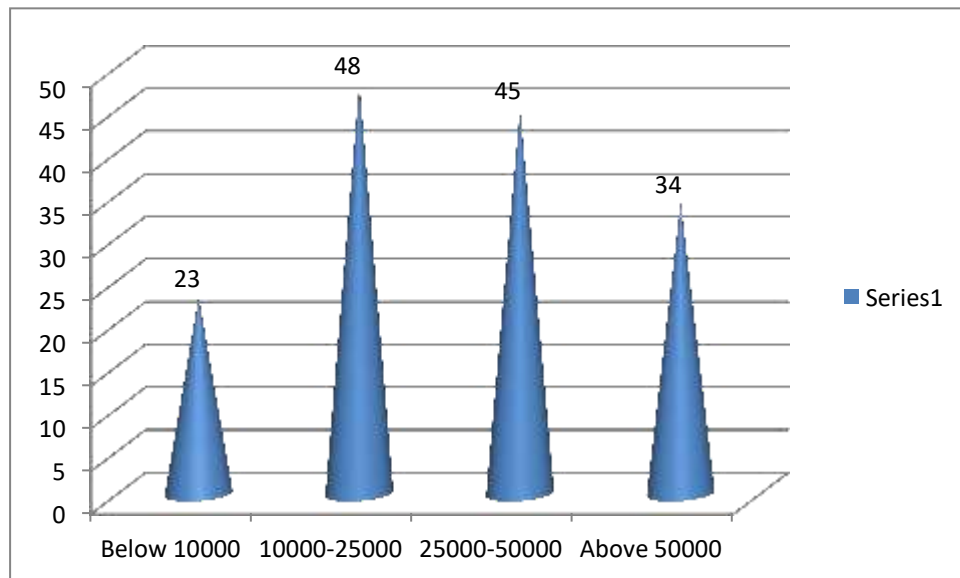
OCCUPATION	TOTAL NO.
Government	37
Private	40
Business	48
Others	25
TOTAL	150



Interpretation: The result shows that majority of respondents that are using Ebanking are Businessman i.e. 32% they are using E-banking services because it results in time saving. And 27% respondents are working in private sector and 24% respondents are working in government organizations and 17% are others which include students and housewives they are using E- banking because it saves time and students they have complete knowledge of internet.

• **INCOME**

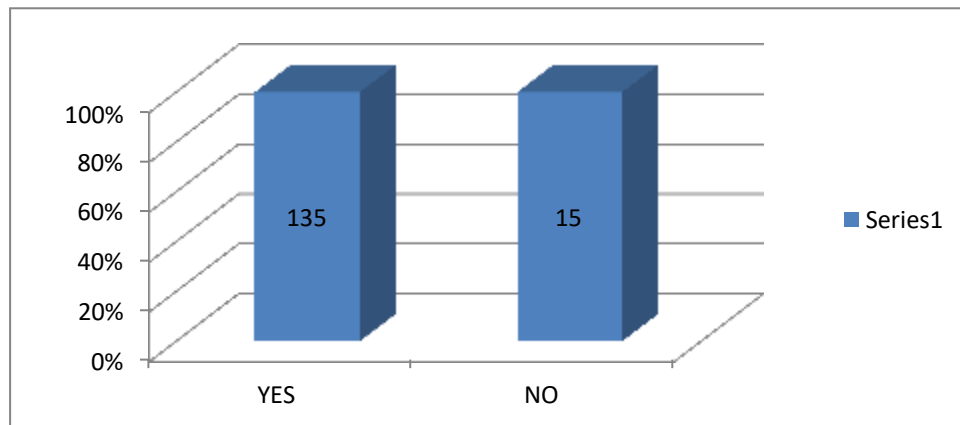
INCOME	TOTAL NO.
Below 10,000	23
10,000-25,000	48
25,000-50,000	45
More than 50,000	34
TOTAL	150



Interpretation: The result of this study shows that 32% of the respondents who are using E- banking fall under the income category of 10,000-25,000 and 30% falls under the income category of 25,000 to 50,000 and 23% % falls under the income category of more than 50,000 and 15% % falls under the income category of below 10,000.

Q-1) DO YOU THINK E-BANKING SERVICES IS NECESSARY IN PRESENTSCENARIO?

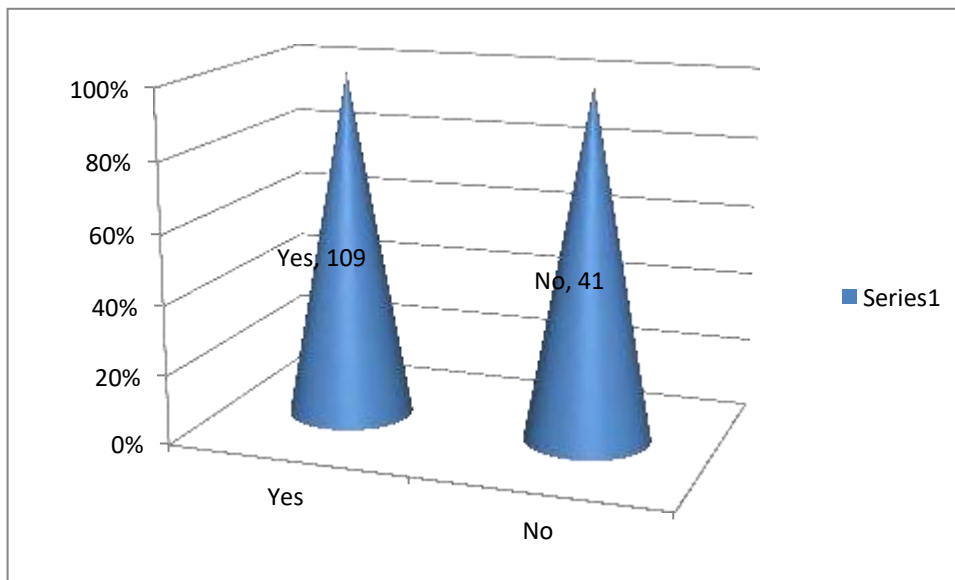
YES	135
NO	15
TOTAL	150



INTERPRITAYION: To make work easiest e-banking facility are very useful and necessary in present scenario.

Q-2) WHILE OPENING UP THE ACCOUNT, WERE YOU AWARE OF EBANKINGSERVICES PROVIDED BY YOUR BANK?

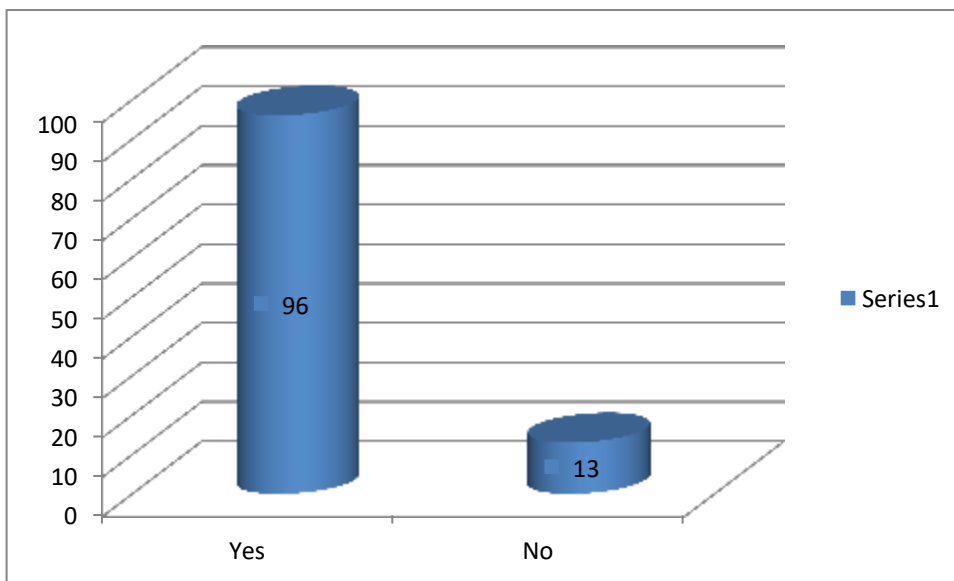
OPTION	NO. OF RESPONDENT
YEN	109
NO	41



Interpretation: According to this survey majority of respondents i.e.73% were aware about E-banking services provided by their bank and 27% of respondents were not aware about the E- banking services provided by their bank at the time of opening up of their account because of lack of awareness and some are using banking services from last so many years at that time bank was not offering E-banking service so they were not aware at that time but now they are aware.

Q-3) ARE YOU AVAILING E-BANKING SERVICES?

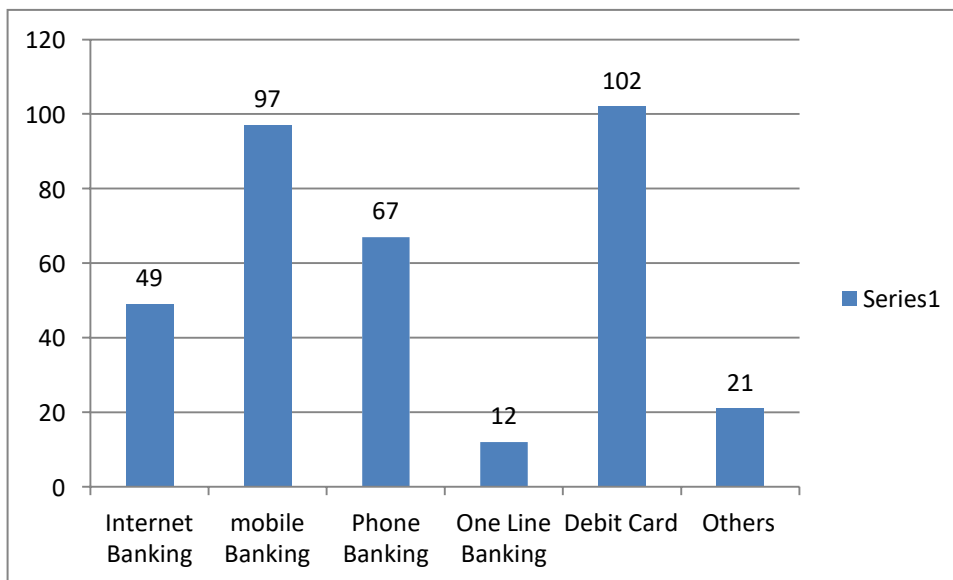
Option	No. of Respondent
Yes	96
No	13



Interpretation: The results show that 88% respondents who are aware of E-banking they are availing E-banking services and 12% are not availing E-banking services yet they are aware of E-banking the reason is that they still have faith in traditional banking.

Q-4) WHICH OF THE FOLLOWING E-BANKING SERVICES IS YOU AWARE OF?

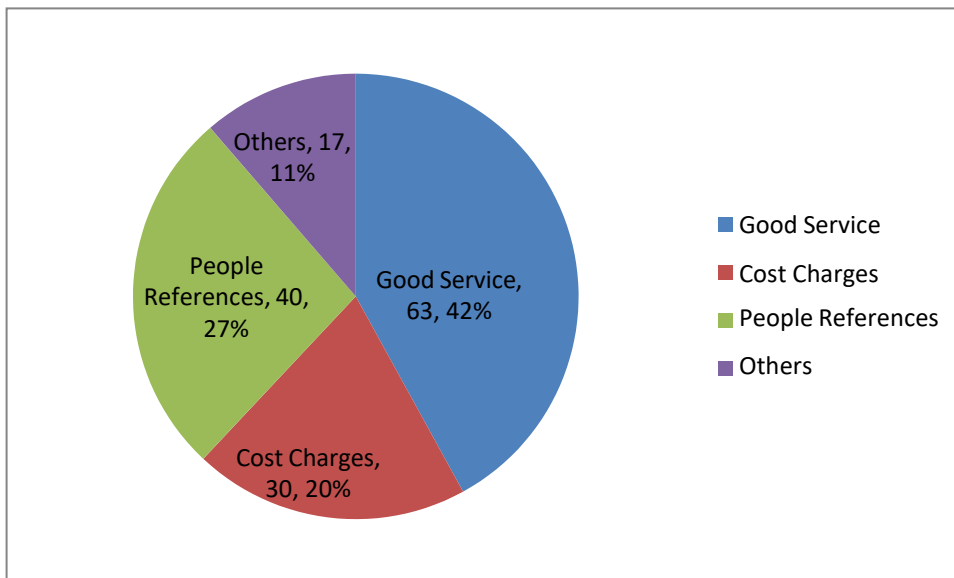
Options	No. of Respondent
Internet Banking	49
Mobile Banking	97
Phone Banking	67
One Line Banking	12
Debit Card	102
Others	21



Interpretation: According to this study almost every customer is using more one E-banking service and Debit Card is used by almost 95% of respondents and mobile banking is used but 89% of respondents and 61% respondents are using phone banking and only 1% are using one line banking this shows the trend that how customers are using E-banking and among all the E- banking products debit cards are mostly used by respondents because they are easy to use and do not require technical or computer knowledge.

Q-5) WHAT DO YOU PREFARE WHILE CHOOSING E-BANKING SERVICES?

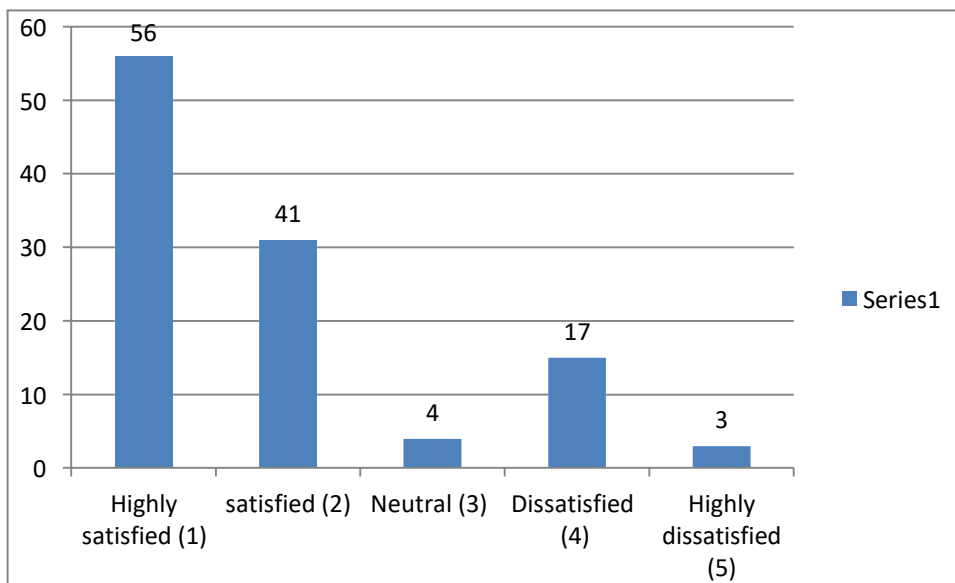
OPTION	NO.OF RESPONDENT
Good Services	63
Cost Charges	30
People References	40
Others	17
TOTAL	150



Interpretation: 63% people are prefer Good services then people references then cost charges and last one is others. It's means that most of the people are want good services in the comparison of cost charges. Means in present people are not much care about service cost.

Q-6) TO WHAT EXTENT IS YOU SATISFIED WITH YOUR BANKS' EBANKING SERVICES?

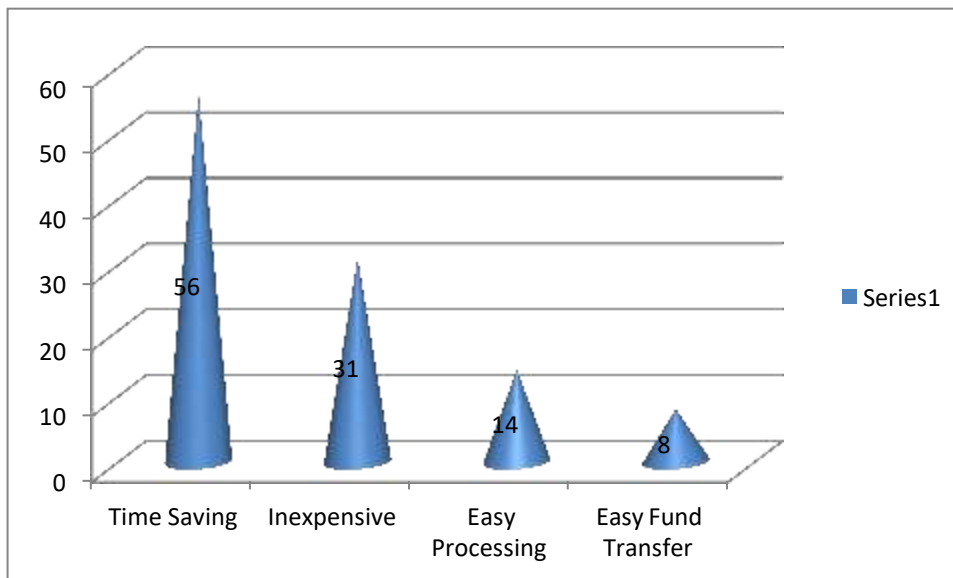
E- banking services	TOTAL NO.
Highly satisfied (1)	56
satisfied (2)	41
Neutral (3)	33
Dissatisfied (4)	17
Highly dissatisfied (5)	3
TOTAL	150



Interpretation: The most of the customers are really liked the facilities provided by banks as they strongly agree that the facilities are good for them so they like to avail the E-banking services provided by the different banks and the result shows that 48% respondents are highly satisfied with the e-banking services provided by their bank and 28% respondents are satisfied with the e-banking services provided by their bank and 14% respondents are dissatisfied with the e-banking services provided by their bank.

Q-7) WHICH OF THE FOLLOWING BENEFITS ACCRUE TO YOU, WHILE USING E-BANKING SERVICES?

Benefit	Total No.
Time Saving	56
Inexpensive	41
Easy Processing	34
Easy Fund Transfer	19
Total	150



Interpretation: Most of the respondents think that the major benefit from E-banking services is time saving facility. Because the major problem which the respondents faced is time problem so E-banking eases their lives and save their time so they like this facility because of this facility.

CHAPTER - 5

FACTS & FINDINGS OF THE STUDY

- From our study we find out that 114 male and 36 female are using E-banking services of the banks. The male are having more knowledge about the transactions and having more knowledge about the services provided by the banks. Only the working ladies having knowledge about the services or the female having the knowledge but not of the all the service s which are provided by the banks. So that's why we considered only those persons who are having knowledge about all services of E-banking which is provided by the banks.
- Most of the respondents who lies under the age of 21-30 are using E-banking services a s near about 40 respondents are using these services because under the age of these respondents they are having more knowledge about the services of e-banking.
- Most of respondents are business man are using E-banking services as near about 48 respondents are using E-banking services. Because the benefits which are having while using these services are more benefited by the business man people so they are availing these services more than the other respondents.
- Most of the respondents who are using this facility having income lie between 10,000-25,000. And there is no at all a huge difference between the respondents who are having income between 25,000-50,000.
- Among the overall percentage of the customers whose having their account in the both the bank which we have conducted in our survey should be the 58%, and they are using the services of both the banks and the categorical division is to be 16% in ICICI and 26% in HDFC.
- The overall percentage of businessmen having complete knowledge a bout e- banking services provided by the bank while opening an account in it is 73% and the percentage of people have no awareness of e-banking services provided by the bank is 27%. Itcan reasonably, be concluded that nearly 73% of the population is having awareness about e-banking services.
- Among those aware (which account for 150 in number) about 109 persons use e-banking services, which is 73% of total population studied.
- E-banking constitutes services provided in terms of ATMs, Debit Card, Credit Card, Phone Banking, Mobile Banking, Internet Banking etc, of which the first six have been covered. Amongst

these Debit Card scores the largest used service status (68%) Close on the heels is Mobile Banking (64.66%), Phone Banking (44.66%), while One Line banking lags behind by scoring the least ie.,0.08%.

- To find out the level of usage amongst the business class, percentage has been calculated from the total completely filled in questionnaires and the incomplete questionnaires were discarded. The frequency of usage of Debit card is highest followed by ATM.
- A study of the factors, influencing the usage was made by listing out various factors such as all time availability, ease of use, nearness etc., and amongst the various factors status symbol is ranked as the major motivating factor, followed by all time availability, friends, ease of use and direct access in decreasing order of importance. Quite interestingly security symbol scored the least motivating factors.
- When asked to list various benefits accruing from the usage of e-banking, time saving received highest percentage score at 51.37% among different benefits such as inexpensive (28.44%), easy processing (12.84%), easy fund transfer (7.3%).Quite interestingly, easy processing feature scored more than the inexpensiveness of the e-banking services. The other benefits accruing to the people include ready availability of funds, removal of middlemen and no rude customer relation executives.
- Among the users, various problems that are encountered while using e- banking services. Firstly they highly considered Difficulty in claiming false transactions are major reasons that create hurdles in its usage, while card misplaced and misused, password forgetting, time consumption and internet connectivity issue also considered seem to be the least bothering problems.
- From the non users, an attempt was made to elicit the reasons for its non usage. most important factors which have been considered by customers who are not using e banking services are no access to internet, mobile then hidden cost factor, followed by dissatisfaction with traditional banking was considered as de-motivating factor, followed closely by the fear of insecurity, then ‘_botheration’ factor, which suggested their resistance to change, which to some extent can be countered by aggressive advertisement and utilizing other modes of awareness dissemination a s well.
- We easily from our interpretation find out that there is not at all as such comparison between both the banks. As there are some of the services which are equally good as the services of other bank. As the services of net banking is good in HDFC as compare to ICICI. And if we compare the mobile banking services the n both are at equally side. But if we compare the phone banking facility

of both the banks then ICICI provides totally satisfaction to their customers. So in findings we can't say that overall which bank provides the satisfactory facility to their customers only there is some services which is better of HDFC and some are better of ICICI bank. Like out of 109 respondents 59 respondents prefer the E-banking services of HDFC and 50 respondents prefer the services of ICICI bank. So most of the respondents considered the services provided by HDFC bank are better in respect of ICICI bank

Conclusion

This study attempted to identify key quality attributes of internet banking services by analyzing internet banking customers & their comments on banking experience. The findings of this study show that despite of many advantages of online banking. People still consider it as an alternative for analyzing their bank records. Although every bank today provides the facility of online banking but most of people use it only once a month. This reason is that in case of internet banking interpersonal interaction with customers is seldom possible. Identification & measurement of customer's expectations of the internet banking services provide a frame of reference & their related quality dimension. The main factors which persuade people to use online banking are comfort & convenience & the facility which attracts them most is quality & quantity of information. Therefore the implementation of quality initiatives should begin with defining customer's need & preferences & their related quality dimensions There is still a lot needed for the banking system to make reforms and train their customers for using internet for their banking account. Going through the survey the main problem lies that still customer have a fear of hacking of accounts and thus donot go on for internet banking. Banks are trying their level best by providing the best security options to the customers but then there is lot of factors which betrays a customer from opening an internet bank account.

Banks are providing free internet banking services also so that the customers can be attracted. By asking the bank employs we came to know that maximum numbers of internet bank account holders are youth and business man. E-Banking is an innovative tool that is fast becoming a necessity. It is a successful strategic we upon for banks to remain profitable in a volatile and competitive marketplace of today. If proper training should be given to customer by the bank employs to open an account will be beneficial secondly the website should be made friendlier from where the first time customers can

directly make and access their accounts. In future, the availability of technology to ensure safety and privacy of e-transactions and the RBI guide lines on various aspects of internet banking will definitely help in rapid growth of internet banking in India.

Recommendation

We can see the time is changing and with the passage of time people are accepting technology there is still a lot of perceptual blocking which hampers the growth it's the normal tendency of a human not to have changes work on the old track, that's also one of the reasons for the slow acceptance of internet banking accounts.

- Banks should obey the RBI norms and provide facilities as per the norms, which are not being followed by the banks. While the customer must be given the prompt services and the bank officer should not have any fear on mind to provide the facilities as per RBI norms to the units going sick.
- Internet banking facility must be made available in all branches of these two Banks.
- Each section of these Banks should be computerized even in rural areas also.
- Personalized banking should be given a thrust as more and more banks are achieving in usual services.
- Covering up the towns in rural areas with ATMs so that the people in those areas can also avail better services.
- Prompt dealing with permanent customers and speedy transactions without harassing the customers.
- Fair dealing with the customers. More contributions from the employees of the bank. The staff should be co-operative, friendly and must be capable of understanding the problems of the customers.
- Give proper training to customers for using i-banking
- Create a trust in mind of customers towards security of their accounts
- Provide a platform from where the customers can access different accounts at single time without extra charge.

Appendix

Dear Respondent,

We are conducting a research study. We will appreciate your cooperation in this regard by filling up the questionnaire carefully. I assure you that the information provided by you will be kept confidential and will be used for academic purpose only.

Please put a tick (v) in appropriate brackets.

Questionnaire On “Satisfaction from E-Banking Services. A comparative study of HDFC and ICICI bank.

A. Personal Information

Name of the customer: _____.

Address: _____

_____.

Phone no.: _____ E-mail id: _____

_____. Age: ____.

B. General Information

1. Do you think that E-banking services are necessary in present scenario.

(a) Yes (B) No

2. From which bank you are availing these services.

(a) SBI Bank

(b) PNB Bank

(c) HDFC Bank

- (d) ICICI Bank
- (e) Others (Please Specify)_____.
3. What do you prefer while choosing E-Banking services.
- (a) Good service
- (b) Cost charges
- (c) People References
- (d) Other(Please specify)_____.
4. What are the reason for selecting this particular bank.?
- (a) Good brand
- (b) Good Service
- (c) Other References
- (d) Other (Please specify)_____.
5. Which type of E-Banking services you want to use.?
- (a) Transfer funds online
- (b) Online purchase and payment.
- (c) Regular checking of bank statement.
- (d) Request any card or cheque book services.
- (e) Other(Please specify)_____.
6. Are you satisfied with your E-Banking Service?
- (a) Yes (b) No
7. Give rating of your E-Banking Services.
- (a) Excellent
- (b) Very good
- (c) Good
- (d) Average
- (e) Below average.

8. Which type of problem are you facing while using E-banking services.

- (a) More time taking in fund transfer.
- (b) Slow speed in working.
- (c) Critical Process.
- (d) Not easy for Non educated persons.
- (e) Other(Please specify)_____.

9. What your bank is doing to solve out these problems.

10. If given any option to switch, Which bank you prefer for using E-Banking service &Why.?

- (a) SBI Bank
- (b) PNB Bank
- (c) HDFC Bank
- (d) ICICI Bank
- (e) Other(Please specify)_____.

C. Suggestion for Improvement.

Signature

Dated:

Thank you very much for your kind support and co-operation.

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