CHAPTER I

INTRODUCTION AND DESIGN OF THIS STUDY

1.1 INTRODUCTION

Banks play a pre-dominant role in building the economy of an individual as well as nation. A strong banking sector is vital for growth, creation of jobs, and generation of wealth, eradication of poverty, entrepreneurial activity and double digit Gross Domestic Product (GDP) growth and for all necessary factors for a country to emerge as a developed one. Nowadays the offerings of the banking organization are getting increasingly varied and complex. Banks are really rolling out new services for their customers in the hope of increasing profits and expanding customer base to meet diverse financial needs. The banking service organizations now use a variety of highly sophisticated financial instruments. Customers have more demands and want swift service tailored to their needs and delivered to them at their convenience.
The entire banking industry is undergoing a paradigm shift with the deregulation and globalization process. The information technology revolution is also making sweeping changes across the industry. Banks are busy trying to corner the market with new products aimed at different customer segments – a shift to focus and niche banking in various population groups. Positioned in an industry where new products are quickly copied by rivals, banks today have realized the importance of quality of service and customer satisfaction – the two most important ingredients for survival.

The future of banking business very much depends upon the ability of the banks to develop close relationship with the customers. The banking industry has to focus on the technology oriented innovations that offer convenience to the customers.

Recent trend shows that most brick and mortar banks are shifting from profit centric to a customer centric model as they develop their new e-banking capabilities. Over a long time, they have been using 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, and the devices include telephone and computers including Automated Teller Machines.

Entry of ATM has changed the profile of front offices in bank branches. Customers no longer need to visit branches for their day to day banking transactions like cash deposits, withdrawals, cheque collection, balance enquiry etc. e–Banking and internet banking have opened new avenues in “Convenience banking”. Internet banking has also led to reduction in transaction costs for banks to about a tenth of branch banking.

**1.2 TOWARDS E–BANKING**

Banks and financial institutions in India are in the process of web – enabling their services in order to offer internet banking to its customers. The Reserve Bank of India has drafted certain internet banking guidelines that have to be followed by banks about to venture into online banking. Here’s what banking CIOs need to do by Soutiman Das Gupta.
It’s the new generation of banking in India. Most private and MNC banks have already setup an elaborate internet banking infrastructure. And this exercise has provided them numerous benefits like:

- Greater reach to customers
- Quicker time to market
- Ability to introduce new products and services quickly and successfully
- Ability to understand its customers needs
- Customers are given access to information easily across any location
- Greater customer loyalty

Multinational and private sector banks in India have been very successful in setting up internet banking services. This is mainly because these banks already had a robust automated banking environment on which they could build the internet banking infrastructure. Most multi-national banks already have efficient internet banking infrastructure running in other countries which could be emulated in India. And the private banks, which are relatively young, did not have to carry the burden of legacy systems. They merely invested in best – of – breed internet banking solutions from the start.

In a Fix
Unfortunately nationalized banks have been unable to evolve as fast as most private sector and MNC banks. As a result, in many organizations there may be a mix of automated systems and manual systems, with both systems running parallel, and using half–baked applications created by smaller vendors which run in certain departments. This creates a chaotic scenario. Network management is a nightmare, the legacy systems may buckle any moment, new users and locations keep coming up, and there are also issues of security and consolidation.

This is a typical situation at a usual nationalized bank:

- A very large network of branches nationwide growing fast
- Lack of connectivity in remote locations
- A very large base of customers increasing fast
- 75–80 percent automation in main branches with less automation in remote cities and smaller branches
- Large amount of legacy equipment which doesn’t integrate well with other systems
➢ Inefficient and outdated applications in some departments which are not flexible and don’t integrate well with other applications.

➢ Slow –to- change mentality of an Indian customer who is used to dealing with a human teller

The RBI Step in

The Reserve Bank of India (RBI) has created a comprehensive document which lays down number of security – related guidelines and strategies for banks to follow in order to offer internet banking. The guidelines broadly talk about the types of risks associated with internet banking, the technology and security standards, legal issues involved, regulatory and supervisory concerns. Any bank that wants to offer internet banking must follow these guidelines and adhere to them as a legal necessity.

Vaidynanathan Iyer, National Manager, security Business, Computer Associates provides solutions to banks which can help them go online. He says, “The guidelines have been created with a lot of thought regarding the banking
scenario in India. It is at par with international banking standards and is very comprehensive”.

**Background**

The document broadly categorizes levels of internet banking services into three types:

- The basic level service in which the bank’s websites disseminate information on different products and services to customers. It may receive and reply to customer’s queries through e-mail.

- Simple transactional websites which allow customers to submit their instructions, applications for different services, and queries on their account balances. They do not permit any fund-based transactions on their accounts.

- The third level of internet banking services offered by fully-transactional websites which allow customers to operate on their accounts for transfer of funds, payment of different bills, subscribing to other products of the bank, and to transact purchase and sale of securities.
1.3 E-BANKING IN INDIA

The technology adoption in banking operations in India was a few decades behind that of in developed countries. Since early 1980s, Reserve Bank of India has been pushing the Indian banks towards computerization as a mechanization of operations. Technology was seen as a key business enabler in six vital areas of banking Viz., augmenting profit pool, operational efficiency, customer management, distribution and reach, product innovation and efficient payment and settlement. Liberalization coincided with the Information Technology Revolution of the 1990s. New Private Sector Banks (NPSB) started with 100 per cent computerization right from the first day of operation and revolutionized the banking service levels in India by matching even banks in developed countries. NPSB used technology as a strategic tool for customer acquisition.

Information Technology in the Banking Sector

- Technology innovation not only enables a broader reach for consumer banking and financial services but also enhances its capacity for continued and inclusive growth.
There are several factors attributed to India’s high growth in the recent period improved productivity, growing entrepreneurial spirit and higher savings.

IT in the banking sector rely on gathering, processing, analyzing and providing information in order to meet the needs of customers.

The Introduction of the Real Time Gross Settlement (RTGS) system has resulted in compliance with the Basle Core principles for systemically important payment systems of the Banks for International Settlements.

It also paved the way for risk – free, credit high – based fund transfers settled on a real time basis and in central bank money. The facility for inter-bank funds settlement through RTGS is today available across more than 55,000 bank branches, in more than 2500 regional centers across the country.

Information technologies and the innovations they enable are strategic tools for enhancing the value of customer relationships. They reduce the costs of financial transactions, improve the allocations of financial resources, and increase the competitiveness and efficiency of financial institutions.
IT in extending banking services to under secured market in rural and semi-urban areas is enormous. The use of Smart card technology, mobile ATMs, coverage of post offices under electronic payment networks in out of reach areas.

**The potential of IT for the near Future also Include**

- Enabling differentiation in customers services
- Facilitating Customer Relationship Management based on available information, which can be stored and retrieved from data warehouses.
- Improving asset – liability management for banks which has a direct bearing on the profit of banks.
- Enhancing compliance with anti-money laundering regulations and
- Complying with Basel II norms.
Objective of the Study

- To investigate the level of satisfaction and trust in using Electronic Banking in Madurai District
- To know the customers satisfaction level towards the quality of e-banking services in banks
- To analyse the perception of customers with their financial information available and managed over internet.

1.4 BANKER’S PERSPECTIVES ON E-BANKING

Progress in the field of information technology has reduced the world to a global village and it has caused unprecedented change in the banking industry. Huge developments in the technology of telecommunications and electronic data processing have further stimulated these changes. Automation has revolutionized financial and banking sectors globally. Apart from branch banking in the brick and mortar mode, click and order channels like internet banking, ATMs, tele-banking and mobile banking are now in vogue. Customers can view the accounts, get account statements, transfer funds, purchase drafts by just making a few key
punches. Availability of ATMs and plastic cards to a large extent make it not necessary for customer going to branch premises. Smart cards with an embedded micro – processor chip have brought about revolutionary change. Electronic Data Interchange (EDI) is another development that has (NJRIM Vol.1, No.1, June 2011, pp.72) made it impact felt in the banking arena. Transaction costs have fallen down, productivity had tremendously improved, new banking products and services have entered the market. e–banking is the term that signifies and encompasses the entire sphere of technology initiatives that have taken place in the banking industry. e–banking is a generic term making use of electronic channels through telephone, mobile phones, internet etc. for delivery of banking services and products. The concept and scope of e-banking is still in the transitional stage. It increases efficiency in the sphere of effective payment and accounting system thereby enhancing the pace of delivery of banking services considerably. It allows customers to access banking services electronically such as to pay bills, transfer funds, view accounts or to obtain any banking information and advice. e-banking also facilitates new relationships with customers, regulatory authorities, suppliers and banking partners with digital – age tools. For example, customers and bank relationship will become more personalized, resulting in new modes of transaction processing and service delivery. Now, banks
are facing with a number of important issues, for example how to take full advantage of new technology, how e-banking changes the way customers relate with the service provider, etc. The banking industry has been considerably influenced by expansion of technology. Benefits of e–banking helps us in overcoming the drawbacks of manual system, as computers are capable of storing, analyzing, consolidating, searching and presenting the data as per the user requirements with lot of speed and accuracy. Number of benefits accrues to the various parties with the development of e–banking. To the banks, e–banking services help in increasing profits. e-banking provides competitive advantage with boundary less network to the banks. Due to e–banking, banks carry on business less with paper money and more with plastic money have online transfer of funds, thus economizing on the cost of storage of huge stocks of currency notes and coins. By connecting with ATM and PO terminals, risk of cash overdraw can be eliminated in case of ATM credit and debit card.

E–banking websites can act as a revenue earner through its promotional activities. Customers can avail e–banking facility from anywhere, therefore saving the need not to invest more on building infrastructures. Websites that
offers financial convergence for the customer will create a more involved banking customer who will more frequently utilize the banking websites. To the customers, e-banking provides 24 hours service for cash withdrawal from any branch. Quick and steady access to information, online purchase of goods and services and payments can be made for various purposes. The customer can view his account balance, can get a statement of his account, can apply for loans, check the progress of his investments, review interest rates and collect other important information. To the Merchants, Traders etc. it ensures assured quick payment and settlement to the various transactions made by the traders. It provides a variety of services to the businessman on par with the international standards with low transaction cost. Cost and risk problems involved in handling cash which are very high in business transactions are avoided. It leads to the growth of global and local clientele base with the development of e-banking. Other benefits include improved image, improved customer service, eliminating paper work, reduced waiting costs and enhanced flexibility.
1.5 REVIEW OF LITERATURE

The purpose of this chapter is to briefly review selected streams of major academic research and consulting frameworks relevant to customer service, customer satisfaction and technology change. An attempt is made to review the earlier studies carried out in India.

A brief literature would be of immense help to the researcher in gaining insight into the problem selected. The researcher would gain good background knowledge of the problem by reviewing certain studies. A reference of these earlier studies will be relevant for shaping the present study.
A working group headed by Varadachary (1977)\textsuperscript{1} was appointed by the Government of India to study the problem of customer services in banks. The group made a study of banking services with regard to deposits, lending and other services. The report of the working group paved the way for many other reforms of customer services of commercial banks. The Government of India accepted most of the recommendations for implementation.

Shah (1982)\textsuperscript{2} in his article “Training for Customer Service” he has stated that the quality of customer services in banks has sunk to very low and poor levels because of two vastly different reasons. The first is that even simple routine services have broken down. The second area in which customer services is lagging is that of special situations.

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Goyal (1983)\(^3\) has underlined in his article “Improving Quality of Banking Services” revealed the importance of improving customer services in banks. Improving banking services has three dimensions.

- Motivation and orientation of staff
- Systems and procedural and
- Specific schemes to suit customer needs.

Anantharam Iyer (1986)\(^4\) in his article “Information Technology, Electronic Banking and Development in India” he concludes banks which have a central place in the economy have a positive role to play in using information technology for sound management.

Saksena (1988)\(^5\) in his article, “The Imperatives of Bank Mechanization/Computerization” Saksena revealed that the imperative need for their healthy operation on account of the vast funds they control and the


important role of a change agent assigned to them towards the socio-economic well-being of the country and the people there is an urgent need to place productivity tools at their command that will speed up transaction processing in respect of all the resources.

Joseph De Feo (1990)\(^6\) Stated in his article entitled “The Technology Imperative” that information technology is imperative in financial services and it could not be outside the mainstream of the bank to satisfy the customers.

Star Comber (1990)\(^7\) in his article “Banks designed by Customer” observed that cash dispensers and automated deposit facilities can be taken care of the normal business of a bank while the staff is to inform the customers about any


\(^7\) Star Comber, “Banks Designed by Customers”, *Banking World*, December 1990, pp.25.
financial need they may have. He stressed the need for bank staff to be trained to fully understand the products and to relate them to individual customer’s needs.

John Bery (1990)\(^8\) ‘Spotlight on personal services’ an article by John Bery identified the main areas where services in banks are required to be improved. He suggested that each branch should have customer services managers with overall responsibilities for customers’ welfare and satisfaction.

Purushothaman Nair (1991)\(^9\) has conducted a survey of the “Implementation of Customer Service in public sector banks in Kerala”. The report shows the implementation of customer services measures in the public sector banks in Kerala is “average”. Customer’s services rendered by the urban branches are better than those of rural branches. These differences are mainly due to the variation of three variables, viz.

- Immediate credit of outstation cheques up to Rs.2500.

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- Expeditious disposal of proposals for advances relating to SSI units and
- Expeditious collection of outstation cheques.

The report invites the attention of rural bankers to these variables.

Datta (1991)\textsuperscript{10} stated “Customer services of commercial banks is constantly deteriorating”, every banking organization as well as the regular authorities have been devising ways and means to improve the quality of banking service. He further stated, for the satisfaction of customer needs, the bank’s systems and procedures or even policies may sometimes have to be bent rather than customers being bent to conform to the bank’s rules. No doubt, all that a customer needs cannot always be met or provided. But here comes the ingénues of the organization to “re-position” its services while trying to come as near as possible to what the customer desires.

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Sumangala Kumar (1992)\textsuperscript{11} in a study entitled “Vistas Human Resources Development in Banks” has mentioned the need for training programmes for bank employees. According to him, well trained staff could anticipate customer needs and satisfy them.

Dilshath (1992)\textsuperscript{12} conducted a study on “Customer satisfaction in Nationalized Bank”, with special reference to Madras city. Some of the important findings are:

- Customers are not satisfied at the counter due to long time taken for drawing money.
- Customers are also dissatisfied because certain services, like investment advice and tax advice are not given to them.
- Borrowers are dissatisfied because of the cumbersome procedural formalities in getting loans sanctioned.


\textsuperscript{12} Dilshath, “Customer Satisfaction in Nationalized Banks” M.Phil Dissertation, Annamalai University, 1992.
Vijay Walia (1992) in his article entitled “Computers in Indian banks” focused on the cases of falling profitability and customer services in banks. He pointed out that manual accounting systems used in banks suffer from limitation of errors in posting, maintaining a large number of ledgers, delayed posting of books etc. the suggested computerization for quick disposal customers demands.

Huter & Ben (1993) in their article, “Banking –Changing Paradigm” describe how a payment is automatically transferred through electronic signals and information about the Automated Clearing House (ACH). They also describe how the Automated Teller Machine (ATM) System works; areas that challenge regularly authorizes to find ways to make a network socially optimal. ATM is one of the technologies which come under the umbrella term fast packet along with frame relay and cell relay. The problem at present with multimedia communication is line capacity. They suggest various means of flexibility that offer

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band width on demand, removing the need for users to pre-calculate their communication capacity for dial-up or leased line networks. They conclude that various applications of technology can offer a competitive edge in banking activities.

Indraneel Chaudhri (1994)\textsuperscript{15} states in his study “Improving Customer satisfaction in Banks” that bank’s customer’s needs are mainly concentrated in the field of account opening, closing and transferring withdrawals, cash deposits and withdrawal, cheques or bills- negotiating and premature withdrawal or renewal of time deposits. Ancillary needs of bank customers are mainly in the nature of remittance – drafts, mail transfers, telegraphic transfers, demand draft purchases, Locker Facilities, Traveller’s Cheque, Gift cheque and credit cards.

Revathi (1994)\textsuperscript{16}, in a paper entitled “Customer Service” stated that customers have complaint about, long time taken by the bank in servicing


customers and indifferent attitude of bank staff. She suggested a change in the attitude of bank staff and commitment to service oriented work culture.

Munirg (1994)\textsuperscript{17} in his article, “Strategies to improve Customer Services” analyzed the strategies necessary to meet the changing environment and emerging challenge. He suggested segmentation of customers on the basis of their psychographic nature.

Ranganathan (1994)\textsuperscript{18} in his paper, “Customer Service”, focused on the problems of bank customers. He stated that there has been determination in the services offered by banks and offered the following suggestions.

- In each bank there should be an enquiry window manned by a staff well versed in banking routine and having abundant human qualities.

\textsuperscript{17} Munirg, R., “Strategies to Improve Customer Service”, \textit{The Banker}, June, 1994, p.31.

• Training course should be organized for the bank officials to train them in matters relating to dealing with customers.

• Computerization of transactions should be done to render better services to the customers.

Dorairaju (1996)\textsuperscript{19} in his study, “A Study on Services of Banks and Customer Satisfaction” has clearly identified that customers are dissatisfied with the cumbersome procedural formalities in availing services and the efforts towards complaint redressal.

Sobhana (1998)\textsuperscript{20} in her study, “Marketing Strategy and Customer Satisfaction in Public Sector Banks” has observed the customer satisfaction regarding the services of public sector banks and has stated that customers complain on lack of comprehensive information system. She has also observed that customers are dissatisfied with the existing communication devices and lack of effective suggestion box scheme with regular customer meet.

\textsuperscript{19} Dorairaju, S., \textit{A Study on Services of Banks and Customer Satisfaction}, M.Phil Dissertation, Bharathiar University, Coimbatore, 1996.

Ahmad Zakaria Siam (1999)\textsuperscript{21} in his study aims at examining the effect of electronic banking on banks profitability in Jordan. How banking sector finds itself before a new fact imposed by technology revolution and digits to change their work mechanism from traditional means to electronic means and challenge banks face as a result. Furthermore, this study investigates the reason behind providing electronic banking, services through internet, their impact on banking services in general and banks profitability in particular. Risks and Challenges involved are discussed. Results and recommendation are also discussed. The importance of this study and the factors that make it unique is that, it discusses solely the topic in general term. The finding of the study are the impact of electronic banking on banks profitability will be feature of the short run due to the capital investment by the banks on infrastructure and training but will be positive on the long run.

Karjalvoto, Heikki, Minna, Panto and Tapio(2002)\textsuperscript{22} in their article has explained that the increasing turbulence in the financial services industry sector

since the mid – 1990, has created a whole news delivery channel for banking: Internet banking. The purpose of their paper is to describe the current state of internet banking in Finland and to study consumer perceptions, beliefs and reactions to electronic banking in general and Internet banking in particular. The results of this study indicate that bank managers can, by knowing the basic beliefs consumers hold about Internet banking, create more effective customer communication, improve software and target prospects better concerning Internet banking. There is wide agreement that Internet banking will on the one hand have a great impact on the whole bank market and on the other hand will be considered the most important retail banking delivery channel in the near future.

Sheeba Kapil (2004) in her article “E-Banking: In Nascent stage in India” concludes that banks move towards privatization, such technologies will help banks to become more profitable and add value to shareholders investment, customers satisfaction, and employees productivity.

Ten Pikkaraines, Kari Pikkaraines, Heikki Karjalooto and Seppo Pahnila (2004) in their paper explained the advances in electronic banking technology have created novel ways of handling daily banking affairs, especially via the online banking channel. The acceptance of online banking services has been rapid in many parts of the world, and in the leading e-banking countries the number of e-banking contracts ties exceeded 50 percent. Investigates online banking acceptance is the light of the traditional technology acceptance model (TAM) which is leveraged into the online environment. On the basis of four group interview with banking professionals, TAM literature and e-banking studies, we develop a model indicating online banking acceptance among private banking customers in Finland. The findings of the study indicate that perceived usefulness and information on online banking on the website were the main factors influencing online banking acceptance.

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Sharad Kumar (2005)\textsuperscript{25} in his article “Innovation in Customer Service in Banks” concludes the banking sector should start emphasizing on its customer service part and to implement the concept of Customer Relationship Management (CRM) in their institutions.

Vijaya Ratnam and Suguna Kumari (2005)\textsuperscript{26} in their article “Customer Service in Commercial Banks in the New Era” comes to the conclusion that to ensure their competitive edge in future, they have to fight with rivals in terms of quality of their service. The challenges that lie before the bankers are four fold. First, they need to satisfy customer needs that are complex and difficult to manage. Second, they need to face up to increased competition from within the sector and from new entrants coming into the financial sector market. Third, they need to address the demands based in supply chain. Finally, they must continually invent new products and services to attract and retain the customer.


Prasad Lavanya (2005)\textsuperscript{27} in their article “Technology Management in Banks” revealed that the rapidly evolving banking needs of customers in India call for increased emphasis and sharp focus on the development of IT based products and solutions for rendering better customer service. Technology development should be a key driver in formulating the growth and business strategies of a bank. This in turn demands that investments in technology should result in cost efficiencies, speedy transactions, and availability of customer services like 24\times 7 availability, multichannel banking and straight through processing and so on. Advantage should also be taken of the power of IT in integrating multifarious product and channel systems for improved customer service. Finally, to acquire and retain new customers, Customer Relationship Management (CRM) software may be installed at various customer contact points across all phone banking channels and at major branches.

Manoj Kumar Joshi (2006)\textsuperscript{28} in his study, “Customer Service in Retail Banking in India” has stated that the cumbersome administrative and legal

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procedures have resulted in the loss of faith in private, foreign banks. It is widely believed that money is safe only with those institutions (such as nationalized banks and post offices) which are backed by the government. Customers have come to the belief that they are lost once these banks down their shutters. To restore faith and confidence, government and the RBI should come out with proper guidelines, quick and efficient legal measures and policies to uphold the safety of public money whenever there is any crisis in these banks on par with nationalized banks.

Chalam and Nageswarra Rao (2006) in their article, “E-Banking Applications in Indian Banking” have revealed that banks in India stand immensely benefited by implementing bank-related e-technology applications. Some of the specific implications in implementing e-banking solutions are: computerization and networking that have impacted the banking operations in our country. As a consequence of these developments, there are new avenues for diversifying and augmenting viewers from banking business. Internet banking is a major thrust area in this direction. The induction of the ECS, ATMs and Credit/Debit cards has

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truly made banking customer focused. Moreover, EFT, Home Banking, Smart Cards and Internet Banking will result in the formation of a new culture in Indian e-Banking.

Venkatesh and Periasamy (2006)\textsuperscript{30} in their article “Role of e-Banking in Emerging Scenario” have stated that the future prospects therefore lie in strengthening the package of innovative banking services already provided as well as offering complementary services where the banking and foreign exchange financial service industries should start to concentrate towards the customer oriented outlook with certain regulations to face the 22\textsuperscript{nd} century customers.

Ajay Kumar Mohanty (2006)\textsuperscript{31} in his article “Innovations in Banking in the Reform Era” has observed that the technology based furnishing in the form of credit card, debit card, ATM, anywhere banking, multiple delivery channels, single window service, mobile banking, internet banking etc., have definitely met customer aspirations. Service at the door steps has been the latest innovations by


many banks. Many banks have introduced seven day’s banking, evening branches for the convenience of customers and to attract more business turnover. With full-fledged operation of CBS in banks there will be further convenience to the customer to operate outstation accounts, collect outstation cheques instantly. All the above facilities flow from the technology implementation.

Abdul Hannan Mia, Mohammad Anisur Rahman and Main Uddin (2006) in their paper has explained that the beginning of the E-business age has been shivering the business environment and breaking out innovative and unconventional ways of doing business. One of the latest outcomes of this e-Business is internet banking or E-banking. Banking section is now re-engineering it to adopt the change and to be in the race of globalization. Thus it has become imperative for the banking industry to better gauge the E-banking phenomenon. This study painstakingly attempts to bestow the evolution of competitive forces, strategy, present status and prospect of e-banking.

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Lbyd G.Gibson (2007) in his paper has examined that cultural factors, especially language are important in studying the phenomenon of internet banking adoption by Chinese American. As part of a study of internet banking adoption by Chinese Americans, research design was an important issue. This was particularly true when considering the high percentage of Chinese Americans that speak a language other than English in their homes. The importance of research design was also true given the cultural difference between Americans and Chinese. In order to issue that a representative sample of this population was surveyed, it was important to develop a Chinese language version of a survey along with an English version to consider cultural difference between Americans and Chinese when collecting data. The result showed that, when given a choice of language survey, 59% of the participants preferred the Chinese version and that there were significant differences between the responses to the English version as compared to the responses to the Chinese version.

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N.P. Singh (2007) reveals that Hi-tech fraudsters have urbanized a new way of tracking online banking customer. One such most well known and fast growing technique is phishing. Latest in phishing is application of Trojan horse program. Trojan horse program insinuates itself into a user’s computer via as email and directs the user of the system to website which is exactly similar to financial institution websites. Crooks pick up passwords and account numbers as soon as customer logon to their site. Keeping in view, the serious threats of phishing attacks author analyzed the trends of major activities of the phishing across globe specifically in the banking sectors. In addition, author analyzed the reasons for increase in phishing activities, types of phishing techniques, and process of phishing. Further author has presented recent cases of phishing specifically in banking/financial sector. Towards the end the author has studied the measures to combat the phishing in online banking.

N.Kamakodi (2008) in his paper reveals that it is almost 15 years since the Indian banking sector was liberalised and paradigm shift happened in the Indian banking sector.

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banking services. All banks have either totally implemented ‘Core banking System’ or halfway through. A survey result was obtained from 292 respondents about their views on electronic banking channels. At the same time, over 80% feel that “human contact is necessary”. This throw up challenge to banks. Technology alone cannot give a sustainable competitive advantage for the banks. When all banks introduce IT in their technology, IT will lose its positions as a differentiator. Banks have to incorporate this in their IT and operational strategy.

Paul H.P.Yeow, Yee Yen Yuer and David Yoon Kin Tony (2008) in their research investigates both positive and negative factor influencing user acceptance of online banking services (OBS) in Australia. A research framework was developed based on the Unified Theory of Acceptance and Use of Technology (UTAUT). One hundred and ninety respondents in Australia participated in a survey on their perceptions towards OBS. Results show that although respondents strongly believe that using would benefit their daily life, many issues (such as security concerns and technology anxieties) reduce their self-efficacies.

Recommendations were given to promote a safe, efficient and conducive environment for user adoption of online banking.

Nadim Jahargir and Noorjahan Begum (2008)\textsuperscript{37} their research intends to purpose a conceptual framework that will privacy on customer adoption mediated through customer attitude in the context of e-banking. To best the framework, structural equities modeling techniques have been applied to data collected from 227 customers of private commercial banks in Bangladesh. Primarily this study aim to text the theoretical models to measure the causality whether perceived usefulness, case of use, security and privacy and customer attitude can faster customer adaptations. The initial result of the study indicate that perceived usefulness, ease of use, security, privacy, customer attitude, significantly and positively related to customer adaptation. Implications for practicing managers and for future research are discussed.

Ahmed Kaleem and Saima Ahmed (2008)\textsuperscript{38} in their paper identified that the Electronic distribution channels provide alternatives for faster delivery of banking services to a wider range of customers. E-channels have gained increasing popularity and have attracted the attention of both academics and practitioners. This paper aims to collect bank employees perception of the potential benefits, risks associated with electronic banking in Pakistan. The outcomes may help the management of banks develop effective strategic planning for the future of electronic banking in developing countries like Pakistan. Primary sources were used to collect the data and were analyzed via frequency analysis and mean score analysis. Bank personnel profiles were further analyzed in relation to their perception to identity different segments among the target respondents.

A M. Sakthivel (2010)\textsuperscript{39} in his article explains that the role of internet is becoming inevitable to corporate and society. Across the world, government and corporate are increasingly working towards the better utilization of the internet. The internet which was initially perceived as a communication media is now


\textsuperscript{39} A.M.Sakthivel, “Impact of Demographics as the Consumption of Different Services online in India”, \textit{Journal of Internet Banking and Commerce}, Vol.11. No.3, December 2010,
metamorphosing into a powerful exists of the dot com companies. The internet motivated many brick and motor companies to use the internet to sell products/Services online and found negative outcome as companies failed to understand the internet buyer behaviour and could not figure out the categories of services the Internet users intent to buy. Hence, the author conducted on extensive primary research in Bangalore, India in order to identify the willingness of Internet users to buy different services over internet. The paper aims at proudly a specific form to identify the impact of demographics of influencing Indian Internet users in community different services online. The outcomes would help the corporate world to understand the importance of demographers on online purchase which could be adopted and deployed for better use.

Menna Mattila, Heikki dcarjaluoto and Tapio Pento (2012) has narrated that the Finland is a world leader in electronic banking and over 39.8 percent of all retail banking transaction were made over the Internet in August 2000, Using the data of a large survey, we analyzed mature customers Internet banking behavior. Internet banking was the third popular mode of payment among

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mature customer. Household income and education were found to have a significant effect on the adoption of the Internet as a banking channel, so that over 30 percent of wealthy and well educated mature males make e-banking their primary mode of making payments. Perceived difficulty is using computer combined with the lack of personal service in e-banking were found to be the main barriers of Internet banking adoption among mature customers. Internet banking was also found to be more unsecure among mature customers than bank customers in general.

Tammy Parker and Michael Parker (2012)\(^{41}\) in their study investigates the electronic banking in Finland and its historical development. Data are collected for MI and GDP to calculate money velocity. Money velocity is found to substantially decrease in 1991 due to a redefinition of MI Finland, but more importantly, velocity showed a slight downward trend prior to the redefinition and following the redefinitions. This downward trend goes against what we would have expected to occur in an environment of increasing technology in the banking sector.

\(^{41}\) Tammy Parker and Michael Parker, “Electronic banking in Finland and the Effect on Money Velocity”, Journal of Money, Investment and Banking, 2012.
1.6 STATEMENT OF THE PROBLEM

The banking industry renders many services to the customers and general public. But they do not reach the customers in a proper manner because of some practical difficulties. Delay in rendering service at the counters, delay in attending to collection of cheques and indifference towards customers, are some of the weak areas which need improvement. Public sector banks are incurring losses continuously. The continued lopsided development of banking network without corresponding strengthening of infrastructure resulted in three main causation of deterioration in customer service like ever increasing volume of work, multifarious activities of banks and unsatisfied expectations of customers.

Information Technology has a lot of influence on banking transaction. It ensures quick service with low transaction cost to the customers. Unfortunately, the employees and customers of banking organization are not well aware of new technology on account of technophobia. There is a fear of fraud with increased use of telephones or computers. Customers are greatly confused with new
concepts of banking. The success of Information Technology lead banking depends upon customers’ awareness. The banks should organize and conduct customer’s awareness program in their service area.

A bank customer, to get the highest satisfaction on the computerized services of a bank should have complete knowledge and awareness on various services offered by that bank and the bankers should have the ability to identify the type of service needed by a customer and render the same to his satisfaction. The researcher has made an attempt to analyse the attitude of customer’s towards Electronic Bank Services in Public Sector Banks in Madurai District.

1.7 OBJECTIVES OF THE STUDY

The present study has the following objectives

1. To discuss the profile of customers and their opinions about transaction after computerization.

2. To analyse the components which measures the impact of electronic banking services.

3. To examine the impact factors with level of satisfaction of the customers.
4. To analyse the expected and derived level of satisfaction of the customers on 'products' and 'services'.

5. To identify the dimension of attitude of customers towards electronic banking services.

6. To offer suggestions for enhancing the level of satisfaction of the customers regarding electronic banking services.

1.8 METHODOLOGY

Data and Sources of Data

The validity of research depends on the systematic method of collecting the data and analyzing the same in a sequential order. The present study is based on primary and secondary data.

In order to fulfill the objectives, a sample study was undertaken by using well framed interview schedule. Total of 300 sample customers, 150 each from Canara bank and SBI were randomly selected from the list of customers of
Primary Data

Primary data has been collected from respondents having their accounts in different bank branches by filling up well-structured interview schedule and through personal meeting with respondents.

Interview Schedule to the Customers

Interview schedule is an instrument used for collecting primary data from the respondents. It contains questions related to the reasons for selecting the branch and waiting time of customers for different banking operations before and after computerization. It also contains questions related to the level of satisfaction with different banking transactions after computerization and measuring the customer satisfaction level under fifteen components such as, Convenience, Courteous service, Employee competence, Responsiveness,
Assurance, Security, Bank premises, Handling complaints, Retail banking, corporate banking, Computerization, Single window services and Automatic Teller Machine (ATM), online banking and overall impact of computerization.

**Secondary Data**

The secondary data was collected from leading journals such as, Indian Journal of Marketing, Southern Economist, Journal of Indian Management, IBA Bulletin, RBI Bulletin, Finance India and Professional Banker. A number of standard text books were referred for obtaining pertinent literature on banking industries.

The secondary data was also collected from institutions like the Institute of Financial Management and Research (IFMR), Staff Training College of the Reserve Bank of India and Staff Training College of the State Bank of India.

**Framework of Analysis**
The data collected were analyzed by applying appropriate statistical tools. The researcher used the following tools while analyzing (i) Descriptive analysis (ii) Four point scaling technique – Average score analysis (ii) t-test and (iii) Regression analysis.

1.9 PROFILE OF THE STUDY AREA

The usefulness of any research study is fully appreciated only when the results are studied with the demographic features such as location, soil conditions and cropping pattern. Hence, a brief profile of the study area is presented and the general profile of SHGs in the study area is also offered.

Location

Madurai District is one of the most important districts of Tamil Nadu where there has been a significant progress in agricultural development since the year
This district is located between $9^\circ 30'$ and $10^\circ 30'$ on the Northern latitude and $77^\circ 00'$ and $78^\circ 30'$ on the Eastern longitude. The capital of this district is Madurai, a city which enjoys a historical and literary reputation. Named after the goddess of the city, it is also referred to as Meenakshipattinam. The four sky-high Gopurams (temple towers) have lent it the name of Nanmadakoodal.

**Geographical Features**

The geographical area of Madurai district is 3741.73 sq.km accounting for nearly 2.9 per cent of the geographical area of the Tamil Nadu state. There are two revenue divisions and seven taluks and there are 596 villages in this district. The Dindigul district, the Sivagangai district, the Virudhunagar district and the Theni district serve as the Northern, Eastern, Southern and Western boundaries respectively of the Madurai district. Madurai district is classified into six sub-zones (Southern Plateau and hill region) under zone among the 13 agro-climatic zones in Tamil Nadu.

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the country. Normally sub-tropical climate prevails over the district without any sharp variation\textsuperscript{44}.

Climate and Rainfall

Generally, Madurai district has a hot, dry and variable climate. The summer season here extends from March to July and in April – May the summer reaches its zenith. There are two observatories in Madurai district (one in Madurai South and the other at Madurai Air Port). In May 1999, the highest temperature recorded during the hot weather season was $38.2^\circ C$ and the lowest temperature recorded was $21.2^\circ C$ in June 2003. The highest temperature recorded in the cold weather season in February 2003 was $38.4^\circ C$ and the lowest temperature recorded in the same season was $20.3^\circ C$ in January 2003. The South-West and North – East monsoons bring rainfall to this district from June to September and from October to December respectively. It has a normal rainfall of $835.3$ mm. In 2011-12 the actual rainfall was $524.5$ mm.

\textsuperscript{44} \textit{Ibid.}, pp.17-19.
MAP

MADURAI DISTRICT – BLOCKS

Source: www.tn.gov.in
Population of the District

According to the 2011 census, the total population of the district was about 25.78 lakhs comprising 13.04 lakhs males and 12.74 lakhs females and with a density of 689 persons per sq.km. The density of Madurai district is higher than the density of the state and that of the nation (Which have a density of 480/sq.km. and 221 sq.km respectively). The proportion of women to men is 964 to 1000 in the Madurai district compared to the ratio of 978 to 1000 for the state. The literacy rate is 78.65 per cent. The literates and illiterates were 17.95 lakhs and 7.67 lakhs respectively in 2001. The population is spread over the entire district with 11.27 lakhs and 14.35 lakhs living in the rural and urban areas respectively. The birth rate is 20.6 per 1000 and the mortality rate is 8.4 per 1000, thus resulting in a natural growth rate of 12.2 per 1000.\footnote{Census of India, 2011, Tamil nadu – An Economic Appraisal, 1991.}

Workforce
The distribution of the labour force in the Madurai district during 2011-2012 is presented in Table 1.1.

**TABLE 1.1**

**CLASSIFICATION OF POPULATION INTO DIFFERENT CATEGORIES OF WORKERS IN MADURAI DISTRICT (2011-12)**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Category</th>
<th>Number of Persons</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Main Workers</td>
<td>10,88,543</td>
<td>95.98</td>
</tr>
<tr>
<td></td>
<td>i) Cultivators</td>
<td>1,29,240</td>
<td>11.39</td>
</tr>
<tr>
<td></td>
<td>ii) Agricultural Labourers</td>
<td>3,30,416</td>
<td>29.13</td>
</tr>
<tr>
<td></td>
<td>iii) Household Industry, Manufacturing</td>
<td>39,760</td>
<td>3.50</td>
</tr>
<tr>
<td></td>
<td>iv) Other workers</td>
<td>5,89,127</td>
<td>51.94</td>
</tr>
<tr>
<td>2.</td>
<td>Marginal workers</td>
<td>45,540</td>
<td>4.04</td>
</tr>
<tr>
<td></td>
<td>Total Workers</td>
<td>11,34,083</td>
<td>100.00</td>
</tr>
<tr>
<td></td>
<td>Non-workers</td>
<td>14,89,651</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total Population</td>
<td>26,23,734</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 1.1 shows that of the total working population in the district, agricultural labourers accounted for nearly 29.13 per cent, cultivators for 11.39 per cent and other workers for nearly 51.94 per cent of the total number of workers. The household industry, manufacturing and the like accounted for 3.50 per cent of the total number of workers; while the marginal workers constituted the remaining 4.04 per cent of the working population.

Land Use Pattern

The working population of Madurai District is predominantly engaged in agriculture and other allied activities. The district has a total geographical area of 3,74,173 hectares. The distribution of land use pattern in the Madurai district for the years 2010-11 and 2011 – 12 is shown in Table 1.2.

<table>
<thead>
<tr>
<th>TABLE 1.2</th>
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<tbody>
<tr>
<td>THE DISTRIBUTION OF LAND USE PATTERN IN MADURAI DISTRICT FOR THE YEAR 2010-11 AND 2011-12</td>
</tr>
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<td>Sl. No.</td>
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<td>1.</td>
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<td>S6.</td>
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<tr>
<td>9.</td>
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<tr>
<td>10.</td>
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</tbody>
</table>


Table 1.2 shows that Madurai district is primarily an agriculture based district with a net sown area contributing to nearly 33.47 per cent of the total geographical area in 2011-12. Forest and current fallows accounted for 12.95 and 5.68 per cent of total geographical area respectively. Utilization of land to non-agricultural uses constituted 20.14 per cent of the total geographical area.
Banking

Madurai district has a good network of banks and bank branches. At the time of the study, there were 44 main banks and 297 bank branches in addition to the 213 co-operative bank branches catering to the banking needs of the people in the district. The average population serviced by each bank branch worked out to 10,770 which were much higher than that of all India average. The Apex Co-operative Long Term Financing Bank known as the Land Development Bank has been financing long term loans through its network of 16 Primary Land Development Banks located in different regions throughout the district\textsuperscript{46}.

\textsuperscript{46}Report of \textbf{Grand Central}, Canara Bank, Madurai.
Madurai district is provided with good infrastructural facilities for almost all its entire area in respect of transport, communications and power supply. The district has well-laid out roads and they comprise 116.4 kms of the state highways, 679.2 kms of the major district roads, 1422.18 kms of Panchayat Union roads and 1024.515 kms of Panchayat roads. The railway lines connect all the major towns within and outside the state. Besides, the district possesses a very good communication network and almost all the villages in the district are fully electrified.47

1.10 LIMITATIONS OF THE STUDY

Certain limitations were imposed on the study:

The population from which the sample was drawn was limited to SBI and Canara bank’s customers in Madurai district which has an effect on the generalization of the findings. Besides, the sample was not randomly selected. It would have been better if the bank had provided a random sample of credit card users and account holders.

47 "G" Returns of the Office of the Assistant Director of Statistics, Madurai, 2011.
The investigation confined itself to the credit card (as an electronic banking service); therefore, other electronic banking services were not included in this study and the results appear to be affected by this issue.

Most of the recent studies on the adoption of electronic banking services in other countries have focused on the adoption of internet banking and the available results are related to this issue, but since this research considers credit card, which is an old electronic banking service in other countries, may be the results are different than other previous studies.

The schedule was designed for respondents who had adopted credit cards. Respondents who had not adopted credit cards may thus have found certain questions irrelevant or different to understand. Consequently the answers to certain questions may have been answered inaccurately.

1.11 CHAPTER SCHEME
The present study "**Customer Attitude towards Electronic Banking Services – A Study with Reference to Public Sector Banks in Madurai District**" presented in six chapters. They are

The first chapter introduces the subject and discusses towards E-banking, E-banking in India, Banker's Perception on E-banking, Statement of the Problem, Review of Literature, Objectives of the study, Methodology, Limitations and Chapter scheme.

The second chapter deals with an overview of Electronic banking service.

The third chapter assesses the profile of sample respondents and opinion of the customers.

The fourth chapter analyses the impact of factors on customers satisfaction.

The fifth chapter identifies the dimension of attitude of customers towards electronic banking services.

The sixth chapter presents the summary of findings along with conclusion and suggestions.