CHAPTER –I

DESIGN AND EXECUTION OF THE STUDY

Introduction

The banking scenario in India in the post liberalization and deregulated environment has witnessed sweeping changes. The tremendous advances in technology and the aggressive infusion of information technology had brought in a paradigm shift in banking operations. For the banks, technology has emerged as a strategic resource for achieving higher efficiency, control of operations, productivity and profitability. For customers, it is the realization of their ‘Anywhere, Anytime, Anyway’ banking dream. This has prompted the banks to embrace technology to meet the increasing customer expectation.

Technology to start with is a business enabler and now has become a business driver. The banking institutions cannot think of introducing a financial product without information technology support be it customer service, transactions, remittances, audit, marketing, pricing or any other activity in the banks. Information Technology plays an important role not only to complete the activity with high efficiency but also has the potential to innovate and meet the future requirements. Information Technology has therefore introduced new business paradigms and is increasingly playing a significant role in improving the services in banking industry.

In the above backdrop it becomes imperative to dwell on the evolution of Information Technology in banks before embarking on the various aspects of e-banking. Information Technology came into picture as early as in the 1980’s in banking industry through the Rangarajan Committee recommendations and banks have given utmost importance to the technology since the last 25 years. The Reserve Bank of India is constantly pursuing the banks from 1980’s to
introduce computerization at branch level and to improve the quality of customer service through technology.

E-Banking implies performing basic banking transaction by customers round the clock globally through electronic media. Alternatively electronic banking can be defined as “delivery of bank’s services to a customer at his office or home by using electronic technology and this has resulted in conceptualization of virtual banking”. In traditional banking, the customer has to visit the branch of the bank in person to perform the basic banking operations viz., account enquiry, fund transfer and cash withdrawal. The brick and mortar structure of a bank is essential to perform the banking functions.

On the other hand, E-Banking enables the customers to perform the basic banking transactions by sitting at their office or at homes through PC or LAPTOP. The customers can access the bank’s website for viewing their account details and perform the transactions on account as per their requirements. Thus, today’s banking is no longer confined to branches. Customers are being provided with additional delivery channels which are more convenient and are cost effective to the banks. This has resulted in shrinking of geographical boundaries, easy reach to the clientele, reliable and secure services. The E-Banking services include Automated Teller Machine, Plastic Card Currency, Internet Banking and Electronic Clearing Services.

Definition of the e-Banking

The concept of electronic banking has been defined in many ways. Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone.
with browser or desktop software, telephone or digital television. Pikkarainen et al (2004) define internet banking as an "internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments". With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of a mouse (De Young, 2001). Indeed the use of the internet as a new alternative channel for the distribution of financial services has become a competitive necessity instead of just a way to achieve competitive advantage with the advent of globalization and fiercer competition (Flavián et al, 2004; Gan and Clemes, 2006). Banks use online banking as it is one of the cheapest delivery channels for banking products (Pikkarainen et al, 2004). Such service also saves the time and money of the bank with an added benefit of minimizing the likelihood of committing errors by bank tellers (Jayawardhana and Foley, 2000). Robinson (2000) believes that the supply of internet banking services enables banks to establish and extend their relationship with the customers. There are other numerous advantages to banks offered by online banking such as mass customization to suit the likes of each user, innovation of new products and services, more effective marketing and communication at lower costs (Tuchilla, 2000), development of non-core products such as insurance and stock brokerage as an expansion strategy, improved market image, better and quicker response to market evolution (Jayawardhana and Foley, 2000). Wise and Ali (2009) argued that many banks want to invest in ATMs to reduce branch cost since customers prefer to use them instead of a branch to transact business. The financial impact of ATMs is a marginal increase in fee income substantially offset by the cost of significant increases in the number of customer transactions. The value proposition however, is a significant increase in the intangible item "customer satisfaction". The increase translates into improved customer loyalty that in result in higher customer retention and growing organization value. Internet banking is a lower-cost delivery channel and a way to
increase sales. Internet banking services has become one of the most important factors in the business economy today.

**Customer Satisfaction**

Before proceeding further, it is best that one fully understands the definition of the phrase ‘Customer Satisfaction’. The phrase does not only express a happy customer, but rather complex than that. Customer satisfaction is actually a term most widely used in the business and commerce industry. It is a business term explaining about a measurement of the kind of products and services provided by a company to meet its customer’s expectation. To some, this may be seen as the company’s key performance indicator (KPI).

In a competitive marketplace where businesses compete for customers, customer satisfaction is seen as a key differentiator and increasingly has become a key element of business strategy. There is a substantial body of empirical literature that establishes the benefits of customer satisfaction for firms. It is well established that satisfied customers are key to long-term business success (Kristensen et al., 1992; Zeithami et al., 1996; McColl-Kennedy and Scheider, 2000). It also defined as a global issue that affects all organizations, regardless of its size, whether profit or non-profit, local or multi-national. Companies that have a more satisfied customer base also experience higher economic returns (Aker and Jacobsson, 1994; Bolton, 1998; Yeung et al., 2002).

Consequently, higher customer satisfaction leads to greater customer loyalty (Yi, 1991; Anderson and Sullivan, 1993 Boulding et al., 1993) which in turn leads to higher future revenue (Fornell, 1992; Bolton, 1998). For that matter, many market leaders are found to be highly superior-customer-service orientated. They have been rewarded with high revenue and customer retention as well. For that
matter, organizations in the same market sector are compelled to assess the quality of the services that they provide in order to attract and retain their customers.

Apparently, many researchers conceptualize customer satisfaction as an individual’s feeling of pleasure (or disappointment) resulting from comparing the perceived performance or outcome in relation to the expectation (Oliver, 1981; Brandy and Robertson, 2001; Lovelock, Patterson and Walker, 2001). There are two general conceptualizations of satisfaction here, namely, the transaction-specific satisfaction and the cumulative satisfaction (Boulding et al., 1993; Jones and Suh, 2000; Yi and La, 2004). Transaction-specific satisfaction is the customer’s very own evaluation of his or her experience and reaction towards a particular service encounter (Cronii and Taylor, 1992; Boshoff and Gray, 2004). This reaction is expressed by the customer who experiences a product or service for the first time. Meanwhile, cumulative satisfaction refers to the customer’s overall evaluation of the consumption experience to date (Johnson, Anderson and Fornell, 1995); an own accumulation of contacts with services provided them from day-to-day. It is from this accumulation that customers establish a personal standard which is used to gauge service quality. However, in general, it is agreed that customer satisfaction measurement is a post-consumption assessment by the user, about the products or services gained (Churchill and Surprenant, 1982; Yuksel and Rimmington, 1988).

Service Quality

Without any doubt, service quality is very important component in any business related activity. This is especially so, to marketer a customer’s evaluation of service quality and the resulting level of satisfaction are perceived to affect bottom line measures of business success (Lacobucci et al., 1994). Customer expectations are beliefs about a service that serve as standards against which
service performance is judged (Zrithaml et al., 1993); which customer thinks a service provider should offer, rather than on what might be on offer (Parasuram et al., 1988). To some, service quality can also be defined as the difference between customer’s expectations for the service encounter and the perceptions of the service received.

According to the service quality theory (Oliver, 1980), it is predicted that customers will judge that quality as ‘low’ if performance does not meet their expectations and quality as ‘high’ when performance exceeds expectations. Closing this gap might require toning down the expectations or heightening the perception of what has actually been received by the customer (Parasuraman et al., 1985). According to Gronroos (1982), perceived quality of a given service is the result of an evaluation process since consumers often make comparison between the services they expect with perceptions of the services that they receive. He concluded that the quality of service is dependent on two variables: Expected service and Perceived service. Quality spells superiority or excellence (Taylor and Baker, 1994) (Zeithaml, 1988), or, as the consumer’s overall impression of the relative inferiority / superiority of the organization and its services (Bitner and Hubbert, 1994; Keiningham et al., 1994-95). Consumer behaviour intentions are also influenced by the standards of service quality (Bitner, 1990; Cronin and Taylor, 1992, 1994; Choi et al., 2004).

**Perceptions Vs Satisfaction:**

Customer satisfaction could be satisfaction with the quality of product/service, the nature of relationship, the price/performance ratio of a product/service, and the ability of the product/service to meet customer's expectations (Brown.C, 1998). While perception of service quality is considered more long-term (Parasuraman.A et al, 1988), satisfaction is more transaction-
specific and transitory, and service quality is considered a predecessor of satisfaction (Dick, et al, 1994). Therefore, it is clear that perceived service quality and satisfaction are closely related. However, the difference between the two can be seen by the fact that a consumer can be satisfied with a specific service, but at the same time may not feel that the range of services was of high quality. Using a similar example, Storbacka et al (1994) explored this aspect as: "a customer could, therefore, respond on a questionnaire that a particular bank is of high quality, even if this did not mean this customer was satisfied with using the bank. It might have too high interest rates on loans or it might not fit the customer's preferences for some other reason". Sohail.M.S et al (2008) measured the quality of service from customers' perspective. With an enormous growth in i-banking, they discussed how banks can be competitive by providing quality services. Results were based on a factor analysis identifying three factors that influence users' evaluation of service quality of internet banking services. These factors were labeled as "efficiency and security", "fulfillment" and "responsiveness".

**Customer Satisfaction in Retail Banking**

Customer satisfaction and service quality are inter-related. The higher the service quality, the higher is the customer satisfaction. Many agree that in the banking sector, there are no recognized standard scales to measure the perceived quality of a bank service. Thus, competitive advantage through high quality service is an increasingly important weapon to survive. Measuring service quality seems to pose difficulties to service providers because of the unique characteristics of services: intangibility, heterogeneity, inseparability and perishability (Bateson, 1985). Because of these complexities, various measuring models have been developed for measuring perceptions of service quality (Gro¨nroos, 1983; 1990; Parasuraman et al., 1985; 1988; 1991; Stafford, 1996; Bahia and Nantel, 2000; Aldlaigan and Buttle, 2002). The SERVQUAL model of Parasuraman et al. (1988)
proposes a five-dimensional construct of perceived service quality: tangibles; reliability; responsiveness; assurance; and empathy – with items reflecting both expectations and perceived performance. Service quality has become an important research topic because of its apparent relationship to costs (Crosby, 1979), profitability (Buzzell and Gale, 1987; Rust and Zahorik, 1993; Zahorik and Rust, 1992), customer satisfaction (Bolton and Drew, 1991; Boulding et al., 1993), customer retention (Reichheld and Sasser, 1990), and positive word of mouth.

Factors affecting e-banking practices

Accessibility

Accessibility defines as the ability of users to access information and services from the web is dependent on many factors. These include the content format; the user's hardware, software and settings; internet connections; the environmental conditions and the user's abilities and disabilities (Godwin-Jones 2001; Hackett and Parmanto, 2009). The term "web accessibility" generally relates to the implementation of website content in such a way as to maximize the ability of users with disabilities to access it. For example, providing a text equivalent for image content of a web page, allows users with some visual disabilities access to the information via a screen reader. The techniques and approaches that create more accessible web pages for people with disabilities also address many other access issues such as download speed and discoverability (Godwin-Jones 2001; Hackett et al, 2004; Hackett and Parmanto, 2009).

Convenience

E-banking provides higher degree of convenience that enables customers to access internet bank at all times and places. Apart from that, the ease of access of computers is perceived as a measure of relative advantage (Daniel, 1999, Black et al, 2001; Polatoglu and Ekin, 2001; Gerrard and Cunningham, 2003). Johnston
(1995) revealed that there are some service quality determinants that are predominantly satisfiers and others that are predominantly dissatisfiers with the main sources of satisfaction being attentiveness, responsiveness, care and friendliness. The main sources of dissatisfaction are integrity, reliability, responsiveness, availability and functionality.

According to Ainscough and Luckett (1996), the provision of customer interactivity is an important criterion that attracts users in the delivery of e-banking. Gerrard and Cunningham (2003) also identify other factors of paramount importance in ensuring the success of e-banking, i.e. the ability of an innovation to meet users' needs using different feature availability on the web site. For instance, the provision of interactive loan calculators, exchange rate converters, and mortgage calculators on the web sites draw the attention of both users and non-users into the bank's web site. A UK study uncovered five key service quality attributes, such as security related issues, convenience, speed and timeliness of the service, and product variety/diverse features (White and Nteli, 2004).

**Privacy**

Customers have doubts about the trust ability of the e-bank's privacy policies (Gerrard and Cunningham, 2003). Trust has striking influence on user's willingness to engage in online exchanges of money and personal sensitive information (Friedman et al, 2000; Wang et al, 2003). Privacy is an important dimension that may affect users' intention to adopt e-based transaction systems. Encryption technology is the most common feature at all bank sites to secure information privacy, supplemented by a combination of different unique identifiers, for instance, a password, mother's maiden name, a memorable date, or a few minutes of inactivity automatically logs users off the account. Besides, the Secure Socket Layer, a widely-used protocol use for online credit card payment, is
designed to provide a private and reliable channel between two communicating entities; the use of Java Applet that runs within the user's browser; the use of a Personal Identification Number, as well as an integrated digital signature and digital certificate associated with a smart card system (Hutchinson and Warren, 2003).

**Security**

Assurance about security relates to the extent to which the web site guarantees the safety of customers’ financial and personal information, an area which has witnessed a proliferation of research interest (Kimery and McCord, 2002; Miyazaki and Krishnamurthy, 2002). Security can be assured by providing a privacy statement and information about the security of the shopping mechanisms and by displaying the logos of trusted third parties. For example, displaying trusted third party logo guarantees a certain level of security protection and has been shown to significantly influence how consumers regard the trustworthiness of e-vendors (Jiang et al, 2008). Internet banking was made possible by the creation of Web browsers. In this mode of online banking, consumers do not have to purchase additional software (all they need is the browser), store any data on their computer, backup any data, or wait for software upgrades or new versions (Kolsaker and Payne, 2002; Dong-Her et al, 2004). All transactions occur on a secure server of a bank via the internet. The bank has all of the required data and software to execute the transactions. Customers go the bank's Web site, log in, and then take advantage of the bank's internet services. Typical bank services are account access and review, transfers of funds between accounts, bill payment, and then a widening variety of new services and products. Security plays an important role in internet banking and so there are several protocols for internet security of encrypted data packets (Kolsaker and Payne, 2002; Dong-Her et al; 2004). Customers are not aware of the encryption, however, only certain versions of popular internet
browsers are acceptable to some banks due to their security limitations (Kolsaker and Payne, 2002; Dong-Her et al; 2004).

**Design**

The goal of aesthetic design is to make a web site visually attractive and enjoyable. Proctor et al (2002, 2003) discussed content preparation in a broad sense and identified its four aspects: knowledge elicitation, information organization and structure, information retrieval, and information presentation. During design, and prior to implementation, it is strongly recommended that users of different ages, and with a range of capabilities and limitations be engaged to trial the new service and provide feedback. Financial institutions should test accessibility of their customer websites with both automated tools and user accessibility trials.

**Content**

Jayawardhena and Foley (2000) and Pikkarainen et al (2004) claim that content on online banking on the web site is one of the factors influencing online-banking acceptance. On the other hand, quality designs, graphics or colours and the propensity to portray good image of the bank would enhance efficient use of navigation. In the context of internet banking, there is a growing body of research that has looked at influences on customer satisfaction. Jayawardhena and Foley (2000) illustrated that such web site features as speed, web site content and design, navigation, interactivity and security all influence user satisfaction whereas Broderick and Vachirapornpuk (2002) found that the level and nature of customer participation had the greatest impact on the quality of the service experience and issues such as customers' zone of tolerance, the degree of role understanding by customers and emotional response potentially determined, expected and perceived service quality.
Yang and Fang (2004) found that ease of use and usefulness are important factors in evaluating online service quality. Earlier Doll and Torkzadeh (1988) identified five quality dimensions that have an impact on “end-user” satisfaction in an online environment: content, accuracy, format, ease of use, timeliness. Thus, it is hypothesized that content has positive effect on customer satisfaction.

**Speed**

Hoffman and Novak (1996) find that there is a significant correlation between download speed and user satisfaction. Speed of download depends on the nature of the site downloaded content, the computing hardware and method of connection used to download information (Jayawardhena and Foley, 2000). Most sites demonstration is small snapshots, and some users have to download the program in order to view the demonstration. Most people perceive downloading may import unwanted viruses, and consume hard disk space. Very often, slow response time after any e-interaction leads to a delay of service delivery and makes consumers unsure about whether or not the transaction is completed (Jun and Cai, 2001). Johnston (1997) illustrates that certain actions, such as increasing the speed of processing information and customers, are likely to have an important effect in terms of pleasing customers; however other activities, such as improving the reliability of equipment, will lessen dissatisfaction rather than delight customers and suggests that it is more important to ensure that the dissatisfiers are dealt with before the satisfiers.

**Fees and Charges**

Service quality attributes in e-banking industry are important since human-internet interaction is the main service delivery and communication channel. Offering high quality services to satisfy consumers' needs, at lower costs, are potential competitive advantage of e-banking. Some studies show that e-banking
has successfully reduced operating and administrative costs (Devlin, 1995; Siriluck and Speece, 2003). Cost savings have helped e-based banks offer lower or no service fees, and offer higher interest rates on interest-bearing accounts than traditional banks (Gerlach, 2000; Jun and Cai, 2001).

**Statement of Problem**

The Indian Banking Industry has undergone radical changes due to liberalization and globalization measures undertaken since 1991. Today, Indian Banking Industry is one of the largest in the world. There has been a great surge in efficient customer services. A highly satisfied and delighted customer is a very vital non-financial asset for the banks in the emerging Information Technology era. The curtsey, accuracy & speed are like a crown factors for a bank.

Indian banking has come a long way from being a sleepy business institution to a highly proactive and dynamic entity. This transformation has been largely brought about by large scale liberalization and economic reforms that have allowed banks to explore new business opportunities rather than generating revenues from conventional streams such as borrowing and lending. Economic reforms and the entry of private players have seen nationalized banks revamp their services and product portfolios to incorporate new, innovative customer-centric schemes. Hence, Indian banking has finally woken up to the surging demands of the ever-discerning Indian consumer.

Nowadays, due to the increase in competition, customer satisfaction is considered to be the most important thing in banking services. Customer service is the primary end of any bank. A customer always wants something and expects that the bank should come up to the level to fulfill those needs. Service quality is about meeting customers’ needs and requirements, and how well the service level
delivered matches customer expectations. Service quality in banking implies consistently anticipating and satisfying the needs and expectations of customers.

Over the last decade India has been one of the fastest adopters of information technology, particularly because of its capability to provide software solutions to organizations around the world. This capability has provided a tremendous impetus to the domestic banking industry in India to deploy the latest technology, particularly in the Internet banking and e-commerce arenas.

The revolution of information technology has influenced almost every facet of life, among them is the banking sector. The introduction of electronic banking has revolutionized and redefined the ways banks were operating. As technology is now considered as the main contribution for the organizations’ success and as their core competencies. So the banks, be it domestic or foreign are investing more on providing on the customers with the new technologies through e-banking.

E-banking is a major invention that has changed the business of banking. World over banks are reorienting their strategies towards new opportunities offered by e-banking. The recent trend shows that most ‘brick and mortar’ banks are shifting from a ‘product-centric’ model as they develop their new e-banking capabilities. PC banking, mobile banking, ATM, electronic funds transfer, account to account transfer, paying bills online, online statements and credit cards are the services provided by banks. Also the feature which is commonly unique to internet banking includes importing data into personal accounting software. Some online banking platforms support account aggregation to allow the customers to monitor all of their accounts in one place whether they are with their main bank or with other institutions. Banking through internet is considered as a complimentary delivery channel for the services rather than a substitute for the brick and mortar
banking branches. E-banking has increased the competition among the banks and both domestic and foreign banks are offering more and more modern ways of e-banking.

Today banking industry has undergone a sea change. The main work of Bank employees is to provide quality information (which is consistent with all branches and direct access channels like ATMs, Phone Banking, Mobile Banking and Net Banking) at the branch at customer finger tips. Online banking (or Internet banking) allows customers to conduct financial transactions on a secure website operated by their bank. 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. 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.

The banking industry in India like many other financial services industries is facing a rapidly changing market, new technologies, economic uncertainties, fierce competition, and more demanding customers; and the changing climate has presented an unprecedented set of challenges. In the current circumstances a question arises whether the customers are satisfied or not and what are the elements of retail banking in general e-banking in particular which lead to the satisfaction or dissatisfaction of customers. The knowledge of current levels of satisfaction and, in particular, the primary factors of satisfaction are beneficial to
those in the industry, thereby allowing them to focus and further strengthen the key areas that lead to highly satisfied customers.

E-banking services not only can create new competitive advantages, perhaps, but also can improve their relationships with customers for banks. Obviously, e-banking can offer better services required by corporations and individuals, it could be a strategic niche no matter for banks or their customers. Conceivably, how to implement e-banking successfully is becoming a critical management issue.

Determining factors affecting customer satisfaction with e-banking is an essential part of a bank's strategy formulation process in an emerging economy like India. It has become imperative for both public and private sector banks to perform to the best of their abilities to retain their customers by catering to their explicit as well as implicit needs. Many a times it happens that the banks fail to satisfy their customer which can cause huge losses for banks. Therefore, the main purpose of the study is to know the e-banking services provided by the banks in the study area and this research study makes an attempt to analyze the overall satisfaction of the customer regarding the e-banking transactions in the public and private sector banks in Thanjavur district of Tamilnadu.

**Scope of the study**

With the advent of liberalization policy and RBI’s easy norms several public, private and foreign banks have entered in Indian banking sector which has given birth to cut throat competition amongst banks for acquiring large customer base and market share. Banks have to deal with many customers and render various types of services to its customers and if the customers are not satisfied with the services provided by the banks then they will defect which will impact
economy as a whole since banking system plays an important role in the economy of a country, also it is very costly and difficult to recover a dissatisfied customer. Since the competition has grown manifold in the recent times it has become a Herculean task for organizations to build loyalty, the reason being that the customer of today is spoilt for choice.

Retaining customers is a financial imperative for Indian banks, especially as attracting new customers is considerably more expensive than for comparable, traditional, bricks-and-mortar stores. Understanding how or why a sense of loyalty develops in customers remains one of the crucial management issues of the present day. In increasingly competitive markets, being able to build loyalty in consumers by increasing their satisfaction is seen as the key factor in winning market share and developing sustainable competitive advantage.

Banking industry worldwide is offering various options, financial products and services to enhance customer satisfaction. Innovative ways for information technology are used to provide services. Undoubtedly e-banking is the technological wonders and is gaining popularity. E-banking is regarded as pulse of the nation. It is important for banks to encourage customers to use e-banking. Banks-trusted business service providers, have the opportunity to leverage their existing relationships to provide full range of high quality trusted internet business services to their customers.

In India, there is less number of studies being conducted to identify how effectively the online channels are used by banking industry to increase customer satisfaction. Hence, this study throws light on the e-banking services provided by the banks in the study area and this research study makes an attempt to analyze how banks are attracting the various customers and how the customers are satisfied
with the e-banking services provided by the banks. This study will be helpful to
draw up further policy for improving customer satisfaction with e-banking
practices and act as a secondary data for further research.

**Research Objectives**

The following are the specific objectives of the research objectives

1. To analyze the present e-banking scenario in India.
2. To study the extent of awareness and the usage of e-banking services in the
   study area.
3. To ascertain the customer's satisfaction regarding various e-banking
   services provided by public and private sector banks and
4. To test the following hypothesis

H1: Accessibility, Convenience, Privacy, Security, Design, Content, Speed and
Fees and Charges have positive relationship with customer satisfaction.

H2: The public and private sector banks customers have similar satisfaction with
e-banking practices.

H3: The demographic variables (sex, age, occupation, income, educational
qualifications and types of account) have not influenced the customer satisfaction
with e-banking practices in public sector and private sector banks.

**Research methodology**

In a view to precede the research in a systematic way the following
research methodology has been used. By means of obtaining detailed opinion of
the customers, this research falls under the category of descriptive research. This
study was conducted as a survey that examined customers’ satisfaction with
e-banking practices in public and private sector banks located in Thanjavur District
of Tamilnadu.
Area of the study

Thanjavur District is one of the 32 districts of the state of Tamilnadu, in southeastern India. Its headquarters is Thanjavur. According to the 2011 census Thanjavur district has a population of 2,402,781, roughly equal to the nation of Kuwait or the US state of New Mexico. This gives it a ranking of 185th in India (out of a total of 640). The district has a population density of 691 inhabitants per square kilometer (1,790 /sq mi). Its population growth rate over the decade 2001-2011 was 8.42 per cent and a literacy rate of 82.72 per cent. Due to vast amount of potential growth, more number of public and private sector banks are established their branches in this district and there is intense competition prevailed between public and private sector banks to enhance their customer base. It is presumed that the large number of customers aware of the e-banking services because of high literacy rate in this district. Hence, this district is purposively selected by the researcher to analyze the customer satisfaction with e-banking services provided by the banks.

Population:

The population defined for this study was limited to customer using e-banking services of public and private sector banks in Thanjavur district of Tamilnadu. The present study covers bank branches for those bank groups working in the Thanjavur district only.

Sample size

In Thanjavur district almost, all the major banks have branches in this district. As it was felt that it would useful to attempt a comparative study among public and private sector banks. One public and one private sector bank having the largest network of branches in the district were identified. The similarly of two banks from e-banks have been identified. In the district, public sector banks, SBI
has large number branches (15 branches) as compared to other public sector banks. Similarly, among private sector banks located in the district, ICICI bank has large number of Branches (5) as compared to other private sector banks. Two branches from each bank viz., Kumbakonam and Thanjavur selected as sample.

In Thanjavur and Kumbakonam branches of State Bank of India, there are 15,975 and 14,257 customers. In the same branches of ICICI bank there are 12,257 and 13,250 customers. The sample size was calculated to guarantee a sufficient number of respondents in each bank branch. Thus, the following formula has been used to estimate the population sample size (The Survey System, 2007):

\[
\text{Minimum Sample Size (n)} = \frac{t^2 \times p \times (1-p)}{m^2}
\]

Where:

- \(n\) = required sample size (minimum size)
- \(t\) = Confidence level at 95% (standard value of 1.96)
- \(p\) = Estimated fractional population of subgroup
- \(m\) = Margin of error at 5% (standard value of 0.05)

As per the formula, the required sample size is 382 customers, therefore, 206 customers from SBI and 176 customers from ICICI Bank were selected as sample. Out of 206 samples in SBI, 109 and 97 samples were chosen from Thanjavur and Kumbakonam branches. Similarly, out of 176 samples in ICICI bank 85 and 91 samples were selected from Thanjavur and Kumbakonam branches of ICICI bank on the basis of proportionate to the total population.

These samples are selected on the basis of Convenience sampling method. The reasons of using this sampling type are twofold. First, it offers an easy way to
obtain the raw data for the further analysis. Second, it saves times and costs since the respondents can be randomly selected.

**Data Collection**

The present study is of analytical and exploratory nature. Accordingly, the use is made of primary and secondary data. The primary data is collected with the help of pre-tested structured questionnaires from a sample of 369 respondents (253 and 116 respondents from one public and one private sector bank) of selected branches of SBI and ICICI Bank from Thanjavur district. The branches and respondents are selected with the help of convenience sampling method.

The survey questionnaire measured eight dimensions of e-banking service quality and its effect on customer satisfaction. A five point likert scale ranging from strongly agree to strongly disagree was adopted as the scale for the statements in the questionnaire and method of data collection was through personal mode. The survey questionnaire has been designed using 29 statements related to service quality dimensions *i.e.* Accessibility, Convenience, Privacy, Security, Design, Content, Speed and Fees and Charges. Each statement in the questionnaire has positively worded. Reliability of the questionnaire was tested using Cronbach’s alpha reliability test.

**Pilot Testing of Instrument**

Researchers strongly recommend pilot testing of the instrument. A sample of 50 customers was used, in the pilot testing, to validate the instrument. To validate the results empirically, appropriate reliability and validity tests of the measurement were taken. Indeed, reliability refers to the instrument’s ability to prove consistent results in repeated uses, whereas validity refers to the degree to which the instrument measures the concept the researcher wants to do. This
p provides confidence that the empirical findings accurately reflect the proposed constructs (Flynn et al., 1994). The reliability coefficient (Cronbach’s alpha) values for the eight areas Accessibility (0.840), Convenience (0.784), Privacy (0.913), Security (0.965), Design, (0.780); Content (0.701);, Speed (0.798); and Fees and Charges (0.791) were found to be within limits for further analysis. None of the reliability alphas is below the cutoff point of 0.60, which is generally considered to be the criterion for demonstrating internal consistency of new scales (Nunnally and Bernstein, 1994).

**Statistical Analysis**

The statistical tests used in the analysis of data includes, Simple Percentage, ANOVA, Chi-square test, t-test, correlation analysis, factor analysis, and regression analysis. SPSS (Statistical Package for Social Sciences) version 16.0 was used to compute and analyze the data.

**Limitations of the Study**

The study has some limitations, these limitations that need to be acknowledged and addressed regarding the present study.

1. The study is restricted to commercial banks located in Thanjavur district only.
2. The study is based on the opinion survey of customers. But, the opinion expressed may differ according to time and situation.
3. The findings of the study can’t be generalized as the study is made covering a limited area namely, Thanjavur district of Tamilnadu.
Chapter Scheme

The following chapter scheme has been adopted:

Chapter I describes the Design and execution of the study, which includes, objectives, the methodology used to collect data, sample parameters, and limitations. Chapter II provides a detailed review of earlier studies carried out in the area of customer satisfaction. Chapter III has been devoted to the discussion of e-banking scenario in India. Chapter IV analyses the awareness and customers satisfaction with e-banking service provided by the public and private sector banks in the study area. Chapter VI contains the summary, major findings, suggestions, conclusions and the scope of future research.