CHAPTER II

REVIEW OF LITERATURE

This chapter deals with the epigrammatic review of literature relevant to the study. The study related to the customers of banks in India and abroad has been reviewed and presented in this chapter. To have a conceptual idea of these studies, it has been reviewed briefly and also an attempt is made to identify the research gap.

2.1 INNOVATION AND TECHNOLOGY AS A KEY TOOL IN DEVELOPING BANKING SERVICES

Banks play a vital role in the country’s development. Bankers searched for ways to satisfy customers and motivate the customers to access more banking transactions. Technology provides a platform to the bankers to deliver their banking products and services to the customers in the way they like with all comforts, secured, flawless and in a convenient mode. Many research articles proved that technology into the banking services helps in developing banking services and its performance.

Morisi, Teresa L (1996)\(^1\) stated that computer technology is used by commercial banks to reduce costs and survive the competition. Consumer acceptance of ATM’s and touchtone telephones in financial transactions has allowed banks to reduce the number of costly transactions made with human tellers. Subsequently, banks have reduced the employment of tellers and have converted many of the remaining teller positions into part-time jobs. The study predicted that in future, commercial banks are expected to achieve a rise in real output, while providing more services with fewer employees.

In the findings of Daniel, Elizabeth (1999)\(^2\) the adoption of the new channel is gained by exploring two areas of importance in the analysis of new offerings, an organisation's approach to innovation and their view of the market. The largest
group of respondents (50 per cent) of UK and Republic Ireland are those that are currently testing or developing such services, while just 25 per cent of the respondents were in organisations not providing or developing such services. It is also found that the organisation's vision of the future, their prediction of customer acceptance, which tends to be very low, and their organisational culture of innovation are the most important of the suggested factors in their adoption of electronic delivery.

**Cracknell, David (2004)** identified the e-banking partners as post office, m-bank, ATM kiosk, internet kiosk, petrol stations, POS, mobile service provider and the accessibility for the poor. The result of the analysis reveals that e-banking can offer customers an enhanced range of service at a very low cost.

**Enders, Albrecht, et al. (2007)** analysed the case of Nordea Bank (Scandinavia), an incumbent that has over the last decade enjoyed extraordinary success in e-banking. The paper first demonstrates how the internet has been a sustaining innovation at Nordea and then concludes that pure e-banks are unlikely to create a disruptive innovation in the retail banking industry.

**Malhotra, Pooja, and Balwinder Singh, (2009)** observed that the financial products and services have become available over the internet, and has thus become an important distribution channel for a number of banks. Banks boost technology investment spending strongly to address revenue, cost and competitiveness concerns.

**Chigamba, Cleopas, and Olawale Fatoki (2011)** investigated the factors deciding the selection of commercial banks by University students. University of Fort Hare (Alice Campus) was the study area. The study revealed that technology played an important role in the selection of banks by University students. The findings declared that the bank should distinguish themselves in terms of quality and reliability services given to University students.

An examination conducted by **Gbadeyan, R. A., and O. O. Akinyosoye-Gbonda (2011)** on customers’ choice of banks influenced by the quality of
e–banking services is provided. It was recommended that various measures should be put in place to ensure more security such as installation of encrypted software, verification system of customer’s identification cards, frequent change of password, examining test questions and using alpha numeric password. The study concluded that e –banking has become an important phenomenon in the banking industry and it will continue as more progress and innovations are made in information technology.

According to Mumuni Moro Wandaogou, Abdil, and Stephen Pambiin Jalulah (2011) Technology adoption by the banks has enabled the use of different technology tools in banking, which enable banks to reduce transaction costs, saving money and also time which is categorised as electronic banking. E-banking refers to the development of banking services and products over electronic and communication networks directed to customers.

A study taken by Thulani, Dube, et al.(2011) investigated the benefits of SMS banking and the challenges faced by banks with the view of adoption of this technology. The study revealed that most people still prefer electronic services for the service which do not involve cash movement and thus SMS is familiar among them. For the transactions involving large amounts of cash, it emerged that face to face interactions were still preferred by customers. It is concluded that developing countries lag behind as far as technology regulation is concerned impacting negatively the adoption of technology that would otherwise improve customer services.

Thesis of Hamid, AmmarSa'eed (2012) revealed that e-banking services have a positive effect on customer value and customer loyalty.


From the study undertaken by VarshaKuchara (2012) it comes to know that internet banking is convenient and flexible. It also has various transaction related benefits.
Abaenewe, ZephChibueze, Onyemachi Maxwell Ogbulu, and Michael OsonduNdugbu (2013) showed that electronic banking had improved returns on the equity of Nigeria Banks. The study mentioned that one of the benefits of e-banking was that it improves the performance of bankers and in turn it improves the interest of equity share holders.

Das, Sanjay Kanti. (2013) analysed the service quality of e-banking services and the initiatives undertaken by selected banks in India on social banking and innovative banking. The study is a conceptual one based on survey of literature. Two models of innovation i.e. 4P’s of Innovation Model by Bessant and Tidd (2007) and Six Dimensional Service Innovation Model by Pim den Hertog et al., (2010) are used in the study. It is observed that banks in India are moving towards sustainability through social banking and innovative service operations and offerings. It is found that both types of banks have embraced service innovation as a part of their future banking strategy and are moving continuously towards customer-centric and service-centric banks.

In the special address of Khan, H. R. (2011) it is said that e-banking is one of the fastest growing segments in the card segment with 18 million outstanding credit cards and 228 million debit cards. During the year 2010-11 (April-March) 265 million transactions for a value of Rs.755 billion was transacted using credit cards. 237 million transactions for a value of Rs.357 billion were transacted using debit cards at PoS terminals. Maximum usage of debit cards happen at ATMs with 4235 million transactions for a value of Rs.11,144 billion. Competition, technology, increased customer demand for comfort and convenience and regulatory initiatives have resulted in introduction of several payment products and channels over the time.

Masocha, Reginald, Norman Chiliya, and Stanislous Zindiye.(2011) determined the clients’ perception, usage and adoption of modern technology in banks. With regard to client satisfaction, majority of clients agree that e-banking and the associated technologies increase client satisfaction. Consistently, for client loyalty, e-banking does not diminish the belongingness of most clients of the bank,
their propensity to advocate their banks to others as well as their willingness for long-term relationships. Finally, for relationship quality, e-banking increases the quality of service and does not decrease the clients’ preparedness to confirm the superiority of e-banking facilities.

A study of Prameela, Arasada (2013)\textsuperscript{17} concluded that both Andhra Bank and ICICI Bank are in line with the banks vision of profitability with increased customers’ satisfaction in a user friendly environment. The employees are highly motivated to take up challenges to upgrade technology with attractive incentive packages though there are stressful long hours of work.

2.2 CUSTOMER PERCEPTION, ADOPTION AND LOYALTY TOWARDS E-BANKING

It is deliberated to find the awareness of e-banking services among customers so as to improve the quality and the make the customers accept to adopt e-services. Customer loyalty towards e-banking services can be expected only if the customers are well informed about the services. The following are the research made on customers’ perception, adoption and loyalty towards e-banking services.

Goode, Mark, and LuizMoutinho (1995)\textsuperscript{18} found that major portion of users of e-banking service are youngsters, better educated, with higher incomes, who are in employment and the non users are vice-versa. It is advised that banks have to frame the marketing strategy in such a way to increase overall satisfaction.

Al-Hajri, Salim (2008)\textsuperscript{19} made an attempt to understand the reasons for the lack of technological innovation in developing countries such as Oman. In this study, four perceptions were explored: relative advantage; organisational performance, customer relationship and ease of use. The findings revealed that all these four perceptions jointly provide an excellent understanding of the enablers and inhibitors of e-banking adoption.

The qualitative study of Loonam, Mary, and Deirdre O'loughlin, (2008)\textsuperscript{20} explored the emergence of self-service banking technology and investigates
customers’ perceptions of internet banking self-service within the Irish financial services sector. It is found that the Irish retail banking sector explored consumers’ e-banking interactions and experiences in addition to assessing the dimensions critical to e-banking service quality.

Singhal, Divya, and V. Padhmanabhan(2008)\(^{21}\) analysed with the help of statistical tools clearly indicating the factors responsible for internet banking. Factor analysis results indicate that utility request, security, utility transactions, ticket booking and fund transfer are major factors. Out of the total respondents more than 50% agreed that internet banking was a convenient and flexible way of banking and it also had various transaction related benefits. Thus, providing internet banking is becoming a ‘need to have’ than a ‘nice to have’ service.

The data collected from three private banks viz. ICICI, AXIS and HDFC Bank is an attempt made by Dharmalingam, S. and K. V. Kannan (2011)\(^{22}\) to evaluate the service quality in retail banking in Tamil Nadu, based on different levels of customers’ perception regarding service quality. The result indicates that customers’ perception was highest in the tangible area and lowest in the product variety area of e-banking services.

The study conducted by Tater, Bindiya, Manish Tanwar, and Krishna Murari(2011)\(^{23}\) explored the perception of Indian customers towards the use of technologies with respect to factors such as convenience, privacy, security, ease of use, real time accessibility, and accurate record of varied transaction that enable customers to adopt banking technology. It also tested the other factors such as slow transfer speed, technical failure, fraud and lack of awareness among customers that create hindrance in adoption. Four private banks such as ICICI, HDFC, Axis and IndusInd are taken for the study. The major findings are that ATM was familiar among customers and customer’s usage of all e-banking services was the same in all the four private banks.

The qualitative approach related to e-banking and bio metrics of Adeoye, Babatunde, and O. Lawanson (2012)\(^{24}\) highlighted the area of creating awareness
about e-banking services among customers as to the availability of electronic banking products and services, the way to operate and the benefits of e-banking services. Banks should organise public exhibitions, talk shows and make products accessible to all customers. In addition to that the bankers should improve their service delivery to justify the benefits of electronic banking products and services. It also suggests that the Government should provide adequate regulatory framework to ensure the security of transaction and to protect the customers’ interest.

Habib, Sufyan (2012) felt that reliable and systematic information on the scope of internet banking in Indian context is still not sufficient, particularly what it means to the customers and bankers. The study made an attempt to fill the significant gap in knowledge about the customers’ perception of Internet Banking, trace its present growth and project the emerging scenario. It concludes that internet banking in India is only at its primitive stage dominated by the Indian private, foreign banks. The use of internet banking is confined to a few consumer segments. The risks associated with internet banking are many, which the banks have to model using sophisticated system and extensive use of technology. The legal framework as it exists requires an updating in streamlining and handling the issues associated with internet banking. The functional model can be used to prioritise perceptual variable concerning consumer behaviour so that value to the consumer can maximise its revenues from internet banking. The experiences of the global economies suggest that banks cannot avoid the internet banking phenomenon, but to gain a competitive advantage, they must structure their business models to suit to Indian conditions.

Kaleem, Ahmad, and Saima Ahmad (2015) analysed bank employees’ perceptions about potential benefits and risks associated with electronic banking in Pakistan. The findings concluded that ‘minimising inconvenience’ and ‘government access to data’ appears to be the most important benefit and risk respectively, while ‘reducing HR requirements’ and ‘charging high costs for services’ are the least important benefits and risk associated with electronic banking.

Krupa, Mrs M. Esther, and Major Dr R. Rajasekaran (2015) identified the customer level of awareness towards e-banking services. The finding reveals that
people know about the services but still many are not aware of all the services and do not use them. Banks should ensure that electronic banking is safe and secure for financial transactions like traditional banking. Therefore the banks should make some potential strategy to create awareness about all the e-banking services.

2.3 FACTORS INFLUENCING CUSTOMER SATISFACTION

Measuring customer satisfaction is important to identify the satisfactory factors to strengthen the factors further to retain the potential customers and to attract new customers. It is equally important to identify the dissatisfied factors to rectify the same to improve the customers’ satisfaction. Many researchers have made an attempt to identify the factors influencing customer satisfaction. Service quality dimensions have been taken as factors for the study among which the factors influencing customer satisfaction have been analysed.

Jun, Minjoon, and ShaohanCai (2001)\textsuperscript{28} made an attempt to analyse the quality of internet banking service. The quality dimensions have been classified into customer service quality, banking service product quality and online system quality. The critical incident technique (CIT) was utilised in this study to uncover the key dimensions of the Internet banking service quality as perceived by Internet banking customers and to identify critical, satisfying and dissatisfying factors among the identified dimensions. It is suggested that the bank management have to pay attention to quality enhancement programs such as improving speed, upgrading of website navigation function, prompt attention for query to establish long term customer relationship.

A systematic random sampling method was used by Sciglimpaglia, Don, and DavidEly (2002)\textsuperscript{29} to select a sample of customers of a 6-branch community financial institution. Binary probit models are estimated to examine the factors that distinguish customers who use electronic banking services from those who prefer traditional services and delivery channels. It is advised that the managers of financial institutions find valuable information to target the new customers of electronic banking services.
Singh, Shreyan, et al. (2002)\textsuperscript{30}, applied the revised technology life cycle to two e-banking innovations – ATMs and Internet Banking. It has been noted that life cycle provides a useful outline for successful strategies that can be adopted by banks and other financial institutions as technology evolves. According to the life cycle, banks’ marketing strategies need to change as the technology matures in the market place.

Beck, Roman, Rolf Wigand, and Wolfgang Koenig (2003)\textsuperscript{31} analysed the relative efficiency of e-Commerce-deploying banks for which, Data Envelopment Analysis (DEA) is used. Banks with a high satisfaction index based on the information technology and e-commerce infrastructure may be defined as efficient in comparison to the rest of the four country sample. As a result, the DEA identifies the best practice cases or the most efficient establishments within the sample. For a better explanation of the results, the average of “efficient” and “inefficient” banks is calculated. The seven input variables are aggregated to an Internet usage indicator, while the ten output variables are assembled as an average e-commerce satisfaction index.

Mattila, Minna, Heikki Karjaluoto, and Tapio Pento (2003)\textsuperscript{32} stated that consumers’ usage of online banking services in Finland is the highest in the world. The leading bank, Nordea has 1.4 million online customers and 3.2 million log-on monthly in a country of five million people. Osuuspankki Group is the second largest with over 500,000 online customers. The data for this research were collected by means of a questionnaire sent by mail to 3,000 individual bank customers in Finland. The survey sample consisted of three consumer segments (non-users, new users, old users) that differed in terms of Internet banking experience. Based on the suggestions of Child (1970), two factors were extracted using Kaiser’s criterion. The two factor solution accounted for 65.6 percent of the total variance. Of the mature customers, 76.3 percent never use Internet banking, and 41.5 percent of them indicated very negative computer perceptions. Conversely, 72.7 percent of mature customers with highly positive computer perceptions used Internet banking often or always. The results of this paper confirm that mature customers are late adopters of Internet banking. The performed factor analysis indicates that the practical problems
in using e-banking are ‘concerns about the expensive start-up’, ‘security’, and ‘lack of personal service’.

Rexha, Nexhmi, Russel Philip John Kingshott, and Audrey Shang Shang Aw (2003) found that the cumulative effects of customer satisfaction were found to have a positive impact on trust and this greatly impacted on the prosperity to use electronic banking. Customer satisfaction, trust and use of e-banking were found to have a positive impact on the corporate clients’ commitment towards their bank.

Sohail, M. Sadiq, and Balachandran Shanmugham (2003) examined the current trends in the e-commerce revolution that has set in motion in the Malaysian banking sector and reports on an empirical research that was carried out in Malaysia to study the customers preference for electronic banking and the factors, which they considered influenced the adoption of electronic banking. Analysis further reveals that accessibility of Internet, awareness of e-banking and customers’ reluctance to change are the factors that significantly affected the usage of e-banking in Malaysia.

Bauer, Hans H., Maik Hammerschmidt, and Tomas Falk (2004) identified dimensions of web portal quality and classified the dimensions such as core services, additional services and problem solving services. The study found that the knowledge of these dimensions as major determinants of consumer’s quality perception in the internet provides banks a promising starting point for establishing an effective quality management for their e-businesses.

Centeno, Clara (2004) experienced through the research that the consumers use the Internet as a complementary channel and continue to rely on branches and call centres. The role of branches and call centres is evolving towards more advisory and selling functions. The European average for Internet banking adoption is estimated at 13% of the total population and 39% of Internet users in 2002 were with important northern–southern country variances. The analysis of success stories shows that high internet penetration, together with a developed e-banking culture and a strong push of e-banking in general and internet banking in
particular create favourable conditions for a faster and wider adoption of internet banking.

Kolodinsky, Jane M., Jeanne M. Hogarth, and Marianne A. Hilgert (2004) explored the factors that affect the adoption or intention to adopt the e-banking technologies. Using a Federal Reserve Board commissioned data set, the paper finds that relative advantage, complexity, simplicity, compatibility, observability, risk tolerance, and product involvement are associated with adoption. Income, assets, education, gender, marital status, and age also affect adoption of e-banking. Adoption changed over time, but the impact of other factors on adoption has not changed. Implications for both the banking industry and public policy were discussed.

Pikkarainen, Tero, et al. (2004) defines internet banking as an internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments. Banks use online banking as it is one of the cheapest delivery channels for banking products. With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of a mouse. 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 globalisation and fiercer competition.

In an experimental settings of Yousafzai, Shumaila Y., John Pallister, and Gordon R. Foxall (2005) the study examines the effectiveness of potential trust-building strategies for e-banking and their impact on on-line customers’ perceptions of trustworthiness of the bank, by specifically focusing on the information clues presented on the bank’s web site. Structural assurance and situational normality mechanisms both had an impact on customers’ trustworthiness perceptions, suggesting that banks need to use a portfolio of strategies to build the customer’s trust. The results further suggest that communication of meaningful and timely information has the potential to influence customers’ trusting intentions.
Nepalese banks are using e-banking for their own conveniences and for the purpose of retaining existing customers Amrit B (2007). The cost analysis of most of the banks in Nepal seems to be either inadequate or not applied due to their narrow space of business transaction or lack of sufficient tools. It is found that there is no relationship between usage of e-banking and the user’s demographic factors.

Jenkins, Hatice (2007) examined the factors affecting the adoption of internet banking services by domestic commercial banks in North Cyprus, one of the smallest island economies in the world. It explored the factors that affected the penetration of internet banking services in North Cyprus over a two year period from 2004 to 2006. In 2004, majority of the commercial banks claimed that the potential market was too small to adopt internet banking services in North Cyprus. Yet, in 2006 the same banks were in the process of introducing internet banking as an assurance to their customers that they would be able to maintain a competitive quality of service in the future, hence avoiding the loss of their customers to the branches of foreign banks.

Mobarek, Asma(2007) observed that delivery channels are lacking in meeting the demands of the customers by not making them aware of e-banking and using obsolete or not too up-to-date technology. The hypotheses were tested and showed that there is a relationship between age group, occupation type and some aspects of e-banking. The responses obtained for the acceptance of the electronic age were unanimous as the banking industry strongly felt that it must adapt to the electronic age if they are to move with time and customer demands, not to be left behind. It has been suggested that banks should go down themselves in all the workings regarding e-banking to determine ways that will affect the customers in Botswana.

An analysis of Ravi, V., Mahil Carr, and N. VidyaSagar (2007) says that internet banking is a new delivery channel for banks in India. The internet banking channel was both an informative and a transactional medium. However, i-banking has not been popularly adopted in India as expected.
It is observed by Srivastava, Rajesh Kumar (2007)\textsuperscript{44} that the customer’s perception on usage of internet banking was still at an infancy stage in the world. Many studies focused on usage of internet banking but many factors on non usage were overlooked. The study revealed that education, gender and income play an important role in usage of internet banking.

Grabner-Kräuter, Sonja, and Rita Faullant (2008)\textsuperscript{45} investigated the role of internet trust as a specific form of technology trust in the context of internet banking. The results confirmed the influence of internet trust on risk perception and consumer attitudes towards internet banking. Propensity to trust is a determinant not only for interpersonal relationships but also for trust in technological systems.

Gupta, Pankaj Kumar (2008)\textsuperscript{46} addressed that Internet banking in India was only at its primitive stage dominated by the Indian private and foreign banks. The use of Internet banking is confined to a few consumer segments. The risks associated with internet banking were many, which the banks have to model using sophisticated systems and extensive use of technology. The legal framework requires an updating to streamline and handle the issues associated with Internet banking. The functional model can be used to prioritise perceptual variables concerning consumer behaviour so that value to the consumers can be maximised. The banks can focus on strategic consumer groups to maximise its revenue from internet banking. The experiences of the global economies suggest that banks cannot avoid the Internet banking phenomenon, but to gain a competitive advantage, they must structure their business models to suit to Indian conditions.

Sohail, M. Sadiq, and Nassar M. Shaikh. (2008)\textsuperscript{47} analysed and found how banks can be competitive by providing quality services from the customers’ perspective. Based on a factor analysis, it has been identified that three factors influence users’ evaluation of service quality of Internet banking services. These factors are labeled as ‘efficiency and security’, ‘fulfillment’ and responsiveness’.

Al Nahian Riyadh, Md, ShahriarAkter, and Nayeema Islam (2009)\textsuperscript{48} identified seven variables affecting e-banking adoption by SMEs in Bangladesh as
organisational capabilities, perceived benefits, perceived credibility, perceived regulatory support, ICT industries readiness, lack of financial institutions readiness and institutional influence.

Anyasi, F. I., and P. A. Otubu (2009)\textsuperscript{49} says that mobile theory must keep pace with accounting for m-banking systems along with other capabilities enabled by this increasing flexible technology, offering a way to lower the costs of moving money from place to place and opening a way to bring more users into contact with formal financial systems. M-banking systems may prove to be an important innovation for the developing world. However, the true measure of its importance requires multiple studies using multiple methodologies and multiple theoretical perspectives before the issue of its economic implication can be fully outlined.

Ersoy, Pervin(2009)\textsuperscript{50} stated that e-banking applications, which include automated teller machine (ATM), telephone banking, mobile banking, digital television, debit and credit cards, internet banking, etc., became one of the main battlefields of the banking industry. In short, internet has emerged as a key competitive field for the future of financial services. The purpose of the research was to examine the usage of internet in Turkey to make a basic due-diligence investigation for the financial institutions, including banking, stock trading, insurance and provision of financial information within the framework of internet banking by using statistics compiled mostly from the Bank Association of Turkey over the period from 2005 to 2008. The findings show that internet usage in Turkey by its young population has continued to grow drastically in financial services.

Haque, Ahasanul, et al. (2009)\textsuperscript{51} in their study stated that only protected transactions have significant impact on consumers’ perception about e-banking security, followed by service quality and regulatory frame work issues. The study offers an insight into e- banking in Malaysia, which has not previously been investigated and at the same time, statistical tests of significance makes this study a potential cornerstone for future research.
Khan, Mohammed Sadique, and SibaSankarMahapatra (2009) evaluated the service quality of internet banking (i-banking) services in India from customer’s perspective. Seven quality dimensions, viz. reliability, accessibility, user friendliness, privacy/security, efficiency, responsiveness and fulfillment are identified based on principal component factor analysis. The results show that customers are satisfied with the quality of service on four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfillment, but least satisfied with the ‘user-friendliness’ dimension. The empirical findings not only prioritise different parameters but also provide guidelines to bankers to focus on the parameters on which they need to improve.

Lii, Yuan-shuh (2009) developed a model for e-loyalty as the endogenous variable that includes three exogenous variables (website quality, corporate image and perceived social presence) and two mediating variables (satisfaction and trust). The model was empirically tested using data collected from an online survey at Indonesia. Using structural equation model, results reveal that loyalty of e-banking customers is directly affected by satisfaction and trust on online bank. The results indicate that both satisfaction and trust are determined by consumer perceptions of website quality, corporate image, social presence, website quality exhibiting the strongest impact. Customers have given importance for website quality. Hence the bankers have to design their web site with a view to enhance satisfaction by providing ease of use, usefulness, enjoyment, and the speed of transaction.

Rashid, Mamunur, and M. Kabir Hassan (2009) examined the impact of demographic disparities such as gender, marital status, age and educational qualification on the bank selection criteria applied by diversified customers of domestic Islamic banks in Bangladesh. Mostly, non-Islamic factors such as corporal efficiency, core-banking services, confidence, etc. were given higher weights by majority of the respondents. The report recommends introducing complete e-banking solution to increase advanced marketing efforts and to hire experienced human resources for better Islamic Banking activities in Bangladesh.
Riquelme, Hernan E., Khalid A. Mekkaoui, and Rosa E. Rios (2009)\textsuperscript{55} tested the sample drawn from one of the main banks in Kuwait, the Middle East using multiple regression and discriminate analysis to identify the customer satisfaction on online banking. The study reveals that more satisfied customers tend to use more products and services and that using internet banking for a longer period is associated with higher levels of satisfaction. It appears that companies that offer a wide product portfolio and relevant website content accompanied by prompt and courteous response create satisfaction online.

Rod, Michel, et al (2009)\textsuperscript{56} examined the relationships among three dimensions of service quality that influence overall internet banking service quality and its subsequent effect on customer satisfaction in a New Zealand banking context. The results show significant relationships among online customer service quality, online information system quality, banking service product quality, overall internet banking service quality and customer satisfaction.

Thulani, Dube, ChituraTofara, and Runyowa Langton (2009)\textsuperscript{57} defined internet banking as a system that enables bank customers to get access to their accounts and general information on bank products and services through the use of bank’s website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations.

Yousafzai, Shumaila, John Pallister, and Gordon Foxall (2009)\textsuperscript{58} suggested that trust and perceived risk are direct antecedents of intention, and trust is a multi-dimensional construct with three antecedents: perceived trustworthiness, perceived security, and perceived privacy with regard to trust on Internet Banking. The present study defines a process in which trust acts as both an attitudinal and controlled belief, and thus places trust as an antecedent of both intentions due to confident expectations, and perceived risk due to uncertainty reduction.

The exploratory study of Malhotra, Pooja, and Balwinder Singh, (2010)\textsuperscript{59}, is an attempt to present the current status of internet banking in India and the extent
of internet banking services offered by internet banks and to examine the factors affecting the extent of internet banking services.

Maiyaki, Ahmed Audu, and SanySanuriMohd. (2010) investigated the relationship between the electronic banking facilities, customers’ employment sector and customers’ age group choice of banks. The results show that there is no significant relationship between electronic banking facilities and customers’ choice of banks. It was however found that there is a significant relationship between customers’ employment sector and customers’ age-group on one hand and their choice of banks on the other hand. It was recommended that the management of Nigerian commercial banks should find the relevant factors that are considered important by customers of various age groups to appropriately segment the target market.

A research conducted by Munusamy, Jayaraman, Shankar Chelliah, and HorWaiMun (2010) focused on the measurement of customer satisfaction through delivery of quality service in the banking sector in Malaysia. A quantitative research was used to study the relationship between service quality dimensions and customer satisfaction. Assurance has positive relationship but it has no significant effect on customer satisfaction. Reliability has negative relationship but it has no significant effect on customer satisfaction. Tangibles have positive relationship and have significant impact on customer satisfaction. Empathy has positive relationship but it has no significant effect on customer satisfaction. Responsiveness has positive relationship but no significant impact on customer satisfaction. The study highlights implications for marketers in banking industry for improvement in delivery of service quality.

The purpose of the research conducted by Nupur, Jannatul Mawa (2010) is to understand the impact of variables of e-banking on customer satisfaction in Bangladesh. The study period is from 2006 to November, 2009 because customers enjoyed the e-banking services newly during this period. Five service quality dimensions namely reliability, responsiveness, assurance, empathy, and tangibles have been established based on the SERVQUAL model and the literature review.
These variables have been tested in e-banking to explore the relationship between service quality and customer satisfaction. The data were gathered through survey interview by a structured questionnaire with 250 customers. The study shows that these factors are the core service quality dimensions for customer satisfaction in e-banking. The study also explores that reliability, responsiveness and assurance were the more contributing factors to satisfy the customers of e-banking in Bangladesh.

Ahmad, A. E. M. K., and Hasan Ali Al-Zu’bi,(2011)\(^63\) explores the adoption of e-banking functionality and investigates the impact of e-banking based on the outcomes of customer satisfaction within the Jordanian Commercial Banks. This research showed that adoption of e-banking (accessibility, convenience, security, privacy, content, design, speed, fees and charges) had a positive effect on Jordanian Commercial Bank customers' satisfaction and loyalty.

Alroaia, YounosVakil, Mohammad Hemati, and KambizAbdi (2011)\(^64\) analysed the extent to which customer satisfaction of e-banking in Semnan area had organisational and customer readiness for developing their services. One of the most important sectors that play a key role for grasping a developed condition is banking sector.

Andrew Musiime and MalingaRamadhan (2011)\(^65\) conducted a study to determine the factors that influence customer adoption of internet banking service as well as to examine the relationship between Internet banking services, customer adoption and customers’ satisfaction at Uganda, Africa. The study establishes that there was a significant positive relationship between Internet banking and customer satisfaction which was consistent with the findings of Al-hawari and Ward (2005). The study recommended that more emphasis and efforts can be laid on targeting individual clients. In addition, internet banking providers ought to work to create awareness about the service through participation in trade organisations, exhibitions as well as adoption of new technologies of Internet banking.

Erik Bogaerts(2011)\(^66\) focused on identifying and developing cross client account initiatives and fostering the Thaler community amongst Callatay and
Wouters’ customers. With over 17 years in the banking industry, Erik had realised a consistent and successful track record in the management of large scale and complex banking IT implementation projects for international clients, as well as launching business development activities at a number of C&W's overseas offices across Asia and Europe. It has been observed that a lot seems to be changing in 2011 in the banking space with new payment channels, such as mobile, gaining in popularity and the implementation of SEPA finally becoming a reality. In order that the banks deal with these changes and many more, a flexible and modular banking system will be the key to financial institutions coping with the challenges before them and capitalising on the business opportunities that also exist.

Based on the study done by Gunasekaran, K (2011) it is suggested that to achieve the sound financial policy, banking service is essential and therefore Indian bankers should take resolutions to implement the policy of “inclusion” in all the branches, which enable its customers to enhance the knowledge of e-banking to avail all form of banking services.

Kavitha, S (2011) aimed her study to identify the overall satisfaction of customers regarding e-banking transactions. The study concluded that the demographic variables of the respondents have an influence on customer satisfaction on E-banking.

The findings of Koskosas, Ioannis (2011) stated that security was the greatest fear among the customers on utilising e-banking services as well as the fee levied for the same, though the benefit of internet banking is undeniable. The study concluded with the suggestion that by comparing deals and being educated, a customer can find an internet banking service that suits their needs.

The study on factors that affected customer satisfaction with regard to e-banking by Kumbhar, Vijay M (2011) indicates that, perceived value, brand perception, cost effectiveness, easy to use, convenience, problem handling, security/assurance and responsiveness are important factors in customers satisfaction in e-banking. It explains 48.30 per cent of variance. Contact facilities, system
availability, fulfillment, efficiency and compensation are comparatively less important because these dimensions explain 21.70 per cent of variance in customers’ satisfaction. Security/assurance, responsiveness, easy to use, cost effectiveness and compensation are predictors of brand perception in e-banking and fulfillment, efficiency, security/assurance, responsiveness, convenience, cost effectiveness, problem handling and compensation are predictors of perceived value in e-banking. The result suggested the bankers to enhance their service and to ensure the security to the e-banking customers.

The comparative study of Kumbhar, Vijay M (2011)\textsuperscript{71} analysed the customer satisfaction in ATM service of public and private sector banks in India. Empirical evidences indicated that customers’ perception about efficiency, security and responsiveness, cost effectiveness, problem contact service related to ATM service was low in both public and private sector banks. Therefore both types of banks should be aware about these aspects of ATM service to enhance customers’ satisfaction.

Kumbhar, Vijay M (2011)\textsuperscript{72} focused on identifying the key factors that influence customer’s satisfaction in alternative banking service. Factor analysis test indicated that efficiency, security assurance, cost effectiveness, problem handling, responsiveness, fulfillment and accuracy were the first factors accounting to 32.37\% of variance. Perceived values, brand perception, contact facilities, convenience, and system availability and ease to use are the second factors accounting to 24.64\% of variance. Compensation is the third factor accounting to 9.8\% of variance. The research indicates that bankers should concentrate their effort to enhance service quality, brand perception and perceived value in alternative banking to increase the level of customers’ satisfaction.

The result of the research made by Maheswari, N (2011)\textsuperscript{73} showed that the respondents utilise e-banking services according to their necessity and the customers are willing to use the e-banking services but they do not give much consideration whether the bank is nationalised or private.
From the study carried out by Uppal, R. K. (2011) comparing the adoption of technologies in public and private banks in India, it is found that the maximum technology usage is taking place in new generation private sector banks as well as foreign banks. 43.5 percent are off site ATMs in the country. Public sector banks have more on site ATMs whereas new private sector banks and foreign banks have more off site ATMs. The paper also suggests strategies to enhance e delivery channels in banks particularly in public sector banks.

Chattopadhyay, Pijush, and S. Saralelimath (2012) stated that ATM is one of the most popular delivery channels as it permits customers to do anywhere, anytime banking. Thus, ATM impacts the customer services and leads to better customer satisfaction. It suggests bankers to encourage the illiterate, woman and adult customers to utilise the ATM services of the co-operative banks, based on the study conducted on customers towards use of ATM services.

The final result of the study undertaken by Deribe, Belay, and Ebisa Deribie (2012) is that 57.5% of the respondents expressed that the benefits they obtained from the introduction of the electronic banking services are very limited and 25% of the respondents stated that they observed no big changes by the introduction of electronic banking system and only 17.5% of the respondents replied that the electronic banking are the at best level.

Dhartibahen, Mansukhabai Chauhan (2012) analysed through a questionnaire and found that 64% of the total respondents agreed that mobile banking had transaction related benefits. On questions about reliability only 11% users strongly agreed. They have concluded with suggestions that for inclusive growth, the benefits of mobile banking should reach the common man at the remotest location in the country.

Kanojia, Deepti, and D. R. Yadav (2012) analysed the relevance of successful banking relationship, identifying the factors helping banks to retain and expand their customers in the challenging and increasingly sophisticated market. The study has been undertaken with the customers of various branches of PNB’s in
Meerut. Recommendations of their study are that many of the e-services need improvement, customer policy should be defined, and it is advised that the banker should anticipate the customers’ needs in advance.

Mahmod Jasmin Alsamydai, Rudaina Othman Yousef and Mohammed Hamdi Al Khasawneh (2012)\(^{79}\) revealed that the Jordanian banking sector provided a unique and significant managerial and practical contribution as it has not only focused on the quality of services of e-banking as the only factor influencing customer satisfaction and continuation to deal with such service, but also incorporated different personal factors including knowledge, needs, trust, habit and the personal experience as well as perceived usefulness as satisfaction and continuity to deal with Jordanian e-banking services.

Sudhagar, S. (2012)\(^{80}\) found that high income earners and highly educated class customers use credit cards at the maximum for availing high credit limits. Customers’ satisfaction is found to be less because of high rate of interest with regard to credit card. Customers perceived core services and facilitating services at higher level. Card holders face the major problem of lack of proper advice from banks. Credit card market is yet to realise the potential.

Bishnoi, Sunita (2013)\(^{81}\) made an attempt to find out the perception of customers regarding various issues related to ATM banking services and Debit card services. It reveals that more than 60 percent of respondents perceived that they faced the listed problems to a little extent while using ATM services. Around 26.8 percent of the respondents experienced the problems such as ‘machine out of cash' and 'wrong amount on the slip'. It concluded that ATM is very convenient and has any time anywhere usage.

The study of Fozia, Ms. (2013)\(^{82}\) analysed the overall perception of customers regarding the services of e-banking. The study said that e-banking will be successful for banks only when they have commitment to e-Banking along with a deeper understanding of customer needs. This can come only when the bank has a very big base of customers, best people, and a service attitude.
Mistry, Dr Snehal Kumar H. (2013) identified the factors affecting customer satisfaction in banks and analyse their effects on the level of customer satisfaction. Advice given to the bankers is to get maximum customer satisfaction to increase reliability, responsiveness and assurance as it found that maximum respondents opt these three dimensions compared to other two dimensions such as empathy and tangibility.

The results of the survey conducted by Moayeri, M., M. Faradonbe, and A. Naderifar (2013) have indicated that all six components significantly influenced customer satisfaction. The study also investigated a linear regression between the six independent variables and customer satisfaction and using stepwise linear regression technique the most suitable regression model was found.

Nimako, Simon Gyasi, Nana Kwame Gyamfi, and Abdil Mumuni Moro Wandaogou (2013) found the reasons for dissatisfaction on e-banking services among customers of Ghana banks. It has been found that five factors urged to their dissatisfaction. Among the five, three are related to quality of services and the remaining two are related to transaction charges.

Sohrabi, Maryam, Julie Yew Mei Yee, and Robert Jeyakumar Nathan. (2013) had a survey involving bank customers in Malaysia using e-banking services. It shows that user trust and privacy concerns have the highest effect towards electronic banking adoption in Malaysia.

Dodda Raju, M. E., and T. Narayana Reddy (2014) stated that majority of the customers prefer e-banking for quickness. It is advised that banks should try in all the ways that e-banking is working 24 hours round the clock and service is available to customers without any hassle. Online customers are mainly concerned with safety issues hence the banks should educate their customers on the safety use of their passwords and pin numbers and it should insist the customers that they should change the passwords and pin numbers frequently so that no unauthorised fraudulent practices happen in online banking.
El Aziz, RashaAbd, Rehaballah El Badrawy, and Miran Ismail Hussien (2014) propose a framework to explore and compare the dimensions and barriers that affect consumer’s intention to use or adopt different self-service banking technologies in the Egyptian context. An empirical study on bank customers was conducted using a quantitative approach, where respondents were divided into three groups in order to investigate the usage of ATM, internet banking and mobile banking. The results indicate that the three groups differ significantly with respect to usage, value, risk, tradition and image barriers. Moreover, significant relations between decisions of adoption and Internet banking experience, level of education, and type of mobile owned and mobile internet experience were also noted. Perceived usefulness, cost, and the need for interaction significantly affect the usage of ATM, Internet banking and M-banking. However, perceived risk has significant effect between adopters and non-adopters for ATM and mobile banking only.

Saeedi, Parviz, HormozMehrani, and Mehdi EhsanBakhsh (2014) evaluates the effect of risk and quality of services of e-banking customer’s satisfaction. Social statistics was provided by managers of Golestan provinces firm in which 3 cities are investigated Gorgaon, Kordkoy and Port of Gaz. A sample of 280 was extracted by Kokran formula. Results indicated that quality of e-services have a significant relationship with perceived benefits and costs. Performance and financial risk have negative impact on perceived benefits; but have positive impact on significant relationship with perceived benefits and cost. All these criteria have impact on satisfaction.

2.4 ISSUES, BARRIERS AND CHALLENGES OF E-BANKING

Revolution has taken place in the banking services as e-banking brought many advantages like convenience, comfort, anywhere anytime, etc. to both bank employees and to the customers. However e-banking is not escaping from restrictions and barriers which affect the effective implementation and functions of e-banking. These barriers, issues and challenges of e-banking services are being identified by many researchers.
Harris, Lisa, and Laura J. Spence (2002) stated that the following are the issues found in their research such as (i) the ethical perspectives which emerges over the next few years in relation to electronic commerce requires earnest responses by the e-banking and other sectors. (ii) They have proposed discourse ethics theory as a useful source of guidance for those seeking to act ethically in cyberspace. (iii) Legislation can only go the way to settling standards and guidelines, but the borderless nature of transactions is more acute still in electronic commerce than in the globalised market place. (iv) No law reaches all the electronic interfaces on which transactions will take place. (v) More effective measures will be those that come from the pressures of professionalism and high technical and ethical standards. (vi) These take time to develop, and urgently require input from scholars to help identify and deal with ethical issues in electronic commerce.

The study found that the factors like mobility, perceived convenience and relative benefits were among the strong determinants and shows the importance of factors that can prove mobile financial service to be more beneficial for the consumers when compared to the existing channels of accessing financial services. Perceived risk (which includes privacy and security concerns) about MFS were found to be major barriers towards adoption as per the study of Dass, Rajanish, and Sujoy Pal. (2011)

Elbadrawy, Rehaballah, and Rasha Abdel Aziz. (2011) find the hindrances to adoption of mobile banking by customers in Egypt. The study identified three groups of m-banking non-adopters namely postponers, opponents and rejectors. The objective of the study is to explore the reason for resisting m-banking services in Egypt and whether it differs with regard to these customer groups. Risk and tradition barrier did not show any statistical significance. However, risk barrier received the higher overall mean.

The research attempted to establish the benefits enjoyed and the challenges faced by commercial banks in Kenya in the provision of e-commerce products and services. The data collected for this study were from 70 different bank managers in Kenya. The benefits found in this paper are prompt service, 24x7 availability,
convenience, increased customer loyalty, enabling maintenance of customer data, increased turnover and profitability, reduction of cost, reduction of advertisement and marketing cost and reduction of paper work. The challenges faced by e-commerce products and services are data retention and protection, lack of user support, lack of personal contact, security of payment and electronic signature, e-invoice and online marketing. Kagu, Margaret, et al (2011)\textsuperscript{93}

Rabi, Alireza, and Z. Boostani (2011)\textsuperscript{94} in his article classified the barriers of e-banking into socio-cultural, financial, managerial and technical problems accordingly. The result shows that socio-cultural and managerial problems affect and technical and financial problems do not affect electronic banking development.

A study conducted by Ayana, Gemechu (2012)\textsuperscript{95} indicates that the major hurdles in implementation of electronic banking in Ethiopian banks are security risk, lack of trust, lack of legal and regulatory framework, and lack of competition between domestic and international banks.

Bahl, Sarita (2012)\textsuperscript{96} determined that the security and privacy issues are the big issues in e-banking. The study suggested the bankers to resolve the security and privacy issues to get a prosperous future in electronic banking.

Muzvidzi, Donnelie K., RangariraiMbizi, and TinasheMukwazhe (2013)\textsuperscript{97} collected data from a population of 5000 students and academic staff at Chinhoyi University of Technology, Zimbabwe. A sample of 450 students and staff were selected from the population. The research identified various factors that impose barriers and enhance adoption of internet banking. Chief among these were compromised security of transactions and marketing exposure. It also unearthed the impact of demographic factors on internet banking adoption. Two hypotheses were tested, the first one was meant to determine if there existed any relationship between age and internet banking adoption. It was concluded that there is a negative relationship between age and internet banking adoption. The second hypothesis assumed an association between internet banking and level of education. Education was deemed a prerequisite in enhancing the smooth adoption of internet banking and
hence one should have a significant level of education to take up the technology. It is also suggested that the bank should institute measures to guarantee the security of transactions to internet bank users as this remains the stumbling block to many potential customers.

**Shannak, Rifat O (2013)** in his exploratory research focused on three main dimensions of e-banking in Jordan namely, infrastructure readiness, behavioural influences and the regulatory coverage. He also framed four hypotheses on e-banking services with customer satisfaction. He found that the major issues of concern for Jordanian individual clients using e-banking services are related to trust and familiarisation. He also found that the three dimensions of e-banking not only co-exist, but are also interrelated. Infrastructure influences a number of users of the internet. Similarly the legal enforcement has a positive impact on behavioural patterns as legal bodies or internet banking reduces the fear of online transactions.

**Abbasi, Ebrahim, et al. (2014)** in the descriptive analytical study have analysed the growth of e-banking in Iran and its development has been compared with other European countries. By their descriptive analytical study they have identified the challenges of E-banking system in Iran. The identified main challenges are low level infrastructure, lack of suitable legal and regulatory framework, inadequate banking system, high rates of illiteracy, resistance to change in technology among customers and staff, frequent power interruption and security issues. They have concluded with recommendations to overcome the above said challenges.

In an effort of identifying the factors that influence the adoption of internet banking by **Dalvadi, Yagnesh(2015)** it was revealed that security provided by banks is the first and foremost factor that are considered by customers followed by ease to use internet banking, perceived ease of use and finally support by bank and Government for using internet banking. Usefulness of internet has higher impact on adoption rate.
The attempt made to study the opportunities and challenges of e-banking in Malaysia by Goi, Chai Lee (2015) reveals that Malaysian banks will have to develop appropriate E-banking strategies to successfully compete both in the local and global marketplace. It also suggests that a proper understanding and planning is required to deploy the strategy or service effectively and safely.

Lakshmy, S (2015) found the various risks associated with e-banking from the customer’s perspective. The market research tool of Factor Analysis was used to identify the factors that influence the idea of e-banking in the customers’ mind. It highlights that customers confidence on e-banking is lagging because of the security problem.

‘A strong e-governance is required for e-banking to adapt it to a dynamic market environment’ said by Naik, B. K. R., et al. (2015)

2.5 MEASUREMENT OF CUSTOMER SATISFACTION USING CUSTOMER SATISFACTION MODELS

Many models are available for the measurement of customers’ satisfaction. The researches using customer satisfaction model gave a clear picture of e-banking customer satisfaction.

Shih, Ya-Yueh, and Kwoting Fang (2004) compared three models (TAM, TPB, TRA) using data from a survey of approximately 425 consumers considering a decision to adopt and use technologically innovative Internet banking. The structural equation model (SEM) approach is used to validate the research model. An individual with a confident command of computer skills and familiarity with the internet is more inclined to adopt internet banking. However, in this study, most respondents were familiar with the internet and thus had easy access to technological resources and infrastructure. Therefore, facilitating conditions did not influence perceived behavioral control.

Kumbhar, Vijay(2011) assessed the relationship between perceived quality, brand perception, perceived value and customer satisfaction on e-banking
services. For the data analysis structural equation modeling (SEM) method and path analysis method were used. It is found that e-bank qualmodel is fit to assess relationship between service quality, brand perception and perceived value with overall customers’ satisfaction in e-banking service. Result of regression and SEM indicates that, all 14 variables were found to be significant and good predictors of overall satisfaction of e-banking services. However, the result of SEM analysis indicates that, data supports e-bankqual model and dimensions. Compensation, convenience, contact facilities, ease to use, responsiveness, cost effectiveness and system availability including brand perception and perceived value were found to be the more significant factors in the e-bank qualmodel.

Malek, A. L (2011) collected data to investigate the success factors of IBSA in Jordon through application of Innovation Diffusion Theory (IDT). The research model consisted of six exogenous variables: Perceived ease of use, perceived usefulness, computability, viability, trust and awareness and endogenous: IBSA. The result showed that the six variables had bad significant effects on IBSA, which could suggest that these could be the success factors for internet banking services adoption in Jordon.

A study conducted by Santhiyavalli, G. (2011) evaluated the service quality of State Bank of India at Coimbatore by identifying the major factors responsible for customer satisfaction. To support the objective of the study, SERVQUAL technique and the model developed by A.Parasuraman et.al (1988) was adopted. The factor analysis clearly indicates that among the five dimensions reality, responsiveness, empathy and tangibility were the major factors responsible for customers’ satisfaction which stood at 90% regarding the service provided by State Bank of India. Empathy has maximum average score of 3.240 among other four dimensions.

Susanto, Aries, and HangjungZo (2011) proposed an extendedly unified framework based on DeLone and McLean IS Success Model and Trust-Commitment Theory. The study provides a literary and a comprehensive framework for the formation of consumers’ usage decisions and relational building behaviours
towards Internet-based banking services within several countries. The objective is to propose a unified framework for incorporating the relational formation of consumer’s acceptance decision in internet banking, which in turn, intends to reuse e-banking services based on loyalty within Bangladesh, Indonesia, Malaysia, and South Korea respectively and to measure factors influencing the success of internet banking with regard to technology use and acceptance.

The study of Ahmad, Dhurgham T. (2012)\textsuperscript{109} was completely based on the literature review and the findings and suggestions were recommended based on the analysis of the literature review. It was clearly identified that most of the studies related to acceptance of the technology considered the TAM model which clearly reveals that TAM is still considered as a relevant model when it comes to the acceptance of technology to understand the attitude of human behaviour and intention to accept the technology. The biometric technology has been in talks for a long time especially in the financial sector. Many studies have considered using finger prints as an additional security measure but since the development of mobile banking there is an emphasis on the voice enabled security which is an added advantage. A study by Mercator Advisory Group on payment authentication points out that biometrics has been long on promise and short on delivery.

Dehghan, Alireza, et al. (2013)\textsuperscript{110} provided a proposed synthetic model of technology acceptance in e-banking based on three factors of satisfaction, trust and customers features, considering the existing models TAM, TPB and TRA of technology acceptance. Key shared factors of the three approaches are attitude, subject norm, internet to use and actual use. But three factors alone cannot lead to the acceptance of e-banking. In the theoretical discussions of the research relationship between models of TRA, TPB and TAM, and the constructs of customer satisfaction, trust and features were discussed and a model for relationship between customer satisfaction, trust and features was presented. It suggested that trust can directly affect perceived usefulness and intent to use. Personality features can affect attitude. The models and solutions are proposed for creating and developing factors affecting the development and acceptance of e-banking at Iran.
Navaratnaseelan, J. J., et al (2014) examined the relationship between service quality and customer satisfaction through the SERVQUAL model. In this research, service quality dimensions such as tangibility, reliability, assurance, responsiveness and empathy are considered as independent variables and customer satisfaction is considered as dependent variable. For the purpose of the study 56 customers were selected randomly in Triconamallee District at Srilanka and the primary data were collected through administrating structured questionnaire to these selected customers. The collected data was analysed by inferential statistics. Pearson’s correlation analysis revealed that there is a significant positive correlation between service quality and customer satisfaction. The study found that service quality had a significant impact on customer satisfaction. Hence, maintaining high quality services in commercial banks will have excellent customer satisfaction whereas low quality services will lead to a decline in customer satisfaction which may result in loss of customers.

2.6 COMPARATIVE STUDY OF E-BANKING CUSTOMERS’ SATISFACTION BETWEEN VARIOUS SECTORS OF BANK

The level of satisfaction among various sectors of e-banking customers had been compared to cater valid suggestions to the sector of the banks where the performance lagged.

Singh, Sultan, and Ms Komal (2009) in their paper titled, Impact of ATM on customer satisfaction a comparative study of SBI, ICICI and HDFC bank presented in the Business Intelligence Journal revealed that material satisfaction level was the highest in SBI; the second position was occupied by ICICI bank and third by HDFC bank. With regard to customer satisfaction in terms of efficiency and performance, HDFC bank was at first position, second was ICICI bank and third was SBI. With regard to customer satisfaction in terms of service material, the level was highest in SBI at 79%, second by ICICI bank with 77% and third by HDFC bank with 73%. Average customer satisfaction level was highest in HDFC bank with 70%. In ICICI bank it is 60% and SBI is at third place with 55%.
Uppal, K. R (2011) made a study concerned with the problems and prospects of e-banks in India. The study suggested policies on the basis of perceptions of 60 selected e-bank employees regarding the various issues related to e-banking services. The study concluded that not more than 50% of Indian bank customers were using e-channels. These channels were not much popular among old age and middle age persons as much as among youngsters. The study concludes that most of the customers were shifting from public sector banks to new private sector banks or foreign banks to avail innovative and attractive services. On the basis of these conclusions, the study suggests some strategies to make the public sector banks more competitive in the era of Information Technology.

Dhandayuthapani, S. P (2012) private sector bank customers have more convenience to use e-banking services when compared to public sector banks. The paper found that poor connectivity is the major problem of the internet banking users followed by less Information Technology (IT) literacy. The study also revealed that dissatisfaction level is highest in case of ATMs in the public sector banks as compared to private sector banks whereas in case of internet banking and mobile banking dissatisfaction level is highest in public sector banks when compared to private sector banks.

The impact of service quality dimensions on internet banking service and customer satisfaction was analysed among Internet banking customers of private sector, public sector and foreign banks in Delhi metropolitan area by Gupta, Kamal K., and Ipshita Bansal (2012) and found that the service quality dimension such as security and efficiency carry maximum impact compared to others dimensions such as reliability, responsiveness and site aesthetics.

2.7 RESEARCH GAP

Based on the above review on the subject, it was felt that there were researches conducted in different areas of e-banking such as e-banking evolution, ICT enabled service, impact of technology based banking services, performance, customers adoption, customers acceptance and customers perception of e-banking
services. The e-banking customer satisfaction is measured on service quality dimensions, using various models. However no study had been done on identifying and comparing the attributes of e-banking services with comprehensive services such as Automated Teller Machine (ATM), Internet banking, Debit and Credit card facilities, National Electronic Fund Transfer (NEFT) and Real Time Gross Settlement (RTGS) facilities and mobile banking services among public and private sector banks in Chennai city.

This research gap has been considered and the research has been taken to cover the above gap and to bring out a detailed study in the topic, Customer Satisfaction of E-Banking Services - A study with reference to Public and Private Sector Banks in Chennai.
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