CHAPTER-II

LITERATURE SURVEY REVIEW

2.1 INTRODUCTION

“The key question is not whether to deploy internet technology, but how to deploy it”

(Porter, 2001:64).

Internet\(^1\) banking in this study is defined as internet portal; through which customers can use different kind of banking services ranging from providing information and bill payment for making investments. From its military (PANTHER, 2006), research and academic background, the internet has evolved into an important business tool. E-commerce is often thought to refer to the buying and selling of goods through the internet only. However, e-commerce involves much more than electronically mediated financial transactions between organizations and customers.(Chaffey D, 2006) Table 2.1 presents a range of perspective regarding what is considered as e-commerce.

<table>
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<th>Perspective</th>
<th>Description</th>
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<tr>
<td>Communication</td>
<td>To deliver information, products and payments over the telephone, communication networks and other means</td>
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<tr>
<td>Business</td>
<td>To automate business transactions and work flows</td>
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<tr>
<td>Service</td>
<td>To cut service costs while improving the quality of goodness and increasing the speed of service delivery</td>
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<tr>
<td>Online</td>
<td>To provide the capability of buying and selling products and information over the internet.</td>
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There are 38.5 million users in India and number is set to grow to 100 million by 2007-08. An estimated of 4.6 million Indian Internet users who bank online and with the efforts of

\(^1\)Internet which is essentially a large network of interconnected of computer networks (Schneider 2002) has had a profound impact on the world of business.
government and industry the number is expected to grow 16 million by 2007-08 including both the internet and mobile banking.

Regarding the impact of e-banking, the study indicates that e-banking helps in improving the relationship between bankers and customers. The bankers expressed confidence that such bonds would bring improvement in the overall performance of banks. About different promotional measures adopted by banks to promote e-banking, the study discloses that banks mostly resort to the use of print media followed by internet, SMS on mobile, outdoor advertisements and television.

2.2 REVIEW OF LITERATURE
The review of the relevant literature helps in the formulation of the problem, operationalization of the concept, the focus of the problem and also setting the objectives of the study. As India is taking giant leaps towards globalization, Internet banking is the sector to be studied with great interest. The question of how attitude towards elements of existing banking service might influence the consumer’s decision to use internet banking has not been investigated (Devlin, 2003). As consumers get more and more educated, getting insight about modern banking, via internet banking has evolved as a primary area of concern for all leading and upcoming banks in India.

A number of researches have been conducted on net banking and its adoption, development and its perils. A review of all the past researches done is mentioned in this chapter. This section gives a review and synthesis of the literature that is directly or indirectly related to the present study.

According to (Davis F D, 1989) perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort. Extensive research over the past decade provides evidence of the significant effect of perceived ease of use on usage intention, either directly or indirectly through its effect on perceived usefulness (Venkatesh V, 2000).

(Rogers, Diffusion of Innovation, 1995) Defines innovation as the process by which innovation is communicated through certain channels over time among members of a social system. The perceived characteristics of innovations, such as “relative advantage”,
“compatibility”, “trialability” and “Observeability” were proposed to determine individual consumer decision to adopt technological innovations.

(Lichtenberg, 1995) There are significant benefits from investment in IT to the firms. It is also found one information system (IS) employee is equivalent to six non-IS employee in terms of marginal productivity.

(Talyor S, 1995) Extend the theory of planned behavior by breaking down the structure of attitude, subjective norms and perceived behavioral control (Laune and Lin, 2005). This resulted in enhancement of power to explain behavioral intentions and accurate understanding behavioural events.

(Brian, 2000 31 Jan) He identified the lack of access to computers as one of the possible reason for the slow adoption of Internet Banking. The Malaysian government in a move to encourage consumers to embrace information technology has encouraged purchases of computers in the last two years by allowing a deduction of Rs 500 (US $130) from taxable incomes when computers are purchased.

(Booz Allen, Booz-Allen's Worldwide Survey revealed a huge Perception Gap between Japanese and Americans/Europeans Banks Regarding Internet Banking, 1997) conducted a global survey covering 386 retail and corporate banking institutions in 42 countries to assess the strategic impact of internet banking on the financial service industry. According to the study, there is huge perception and gap between North American/ European banks and Japanese banks regarding the future of channel within 10 years but Japanese expect traditional branches to remain the most important channel. The study also indicates the rapid growth potential of internet banking. Many of the banks that responded have plans to upgrade the functionality of their internet service offerings.

(F, 2000) A US based study found out a significant shift by consumers and businesses to electronic payments. In response to developments in electronic payments and remote banking, banks have greatly increased their investment in technology, particularly in retail banking. The gains from technological advancements in banking and payments are likely to be substantial both from the point of individual financial institutions and economy wide. In this environment, banks should review and if necessary, adjust their risk management practices in tandem with upgrading their technology activists.
(Suganthi, B. B. 2000, Dec) conducted the review of Malaysian banking suites and revealed that all domestic banks were having a web presence. Only 4% of 10 major banks were with transaction sites. The remaining sites were at informational level. There are various psychological and behavioural issues as trust, security of internet transactions, reluctance to change and preference of human interface which appear to impede the growth of the internet banking.

(Ravi Nath, 2001) The purpose of this research was to gauge perceptions of banks of banks regarding the strategic and operational value of webbased banking, its benefits to customers and banks. The results show that the internet banking is in its nascent stage - only a small number of banks offer web based banking to customers and full benefits of internet banking are still to be realized by many banks.

(Balasubramanya, 2002) study analyzed that the automation in the banking sector has come a long way starting with the Rangarajan Committee report on the banking sector reforms during the eighties, followed by reports of the Narasimhan Committee in the nineties. With over 65,000 branches of the banks (public, private and the cooperative sector) in the country, the author found that the percentage of branches covered by automation were very low. Though many banks had claimed that more than 70% business has been automated due to the enforcement of RBI guidelines, in reality it was much lower, as many functions in each branch were still done manually or with partial automation. Hence, there was a significant amount of automation work to be achieved in the banking sector.

(Dasgupta, 2002) Found that internet banking is fast becoming popular in India. However, it is still in its evolutionary stage. By the year 2005, a large sophisticated and highly competitive internet banking market will develop. Almost all the banks operating in India is having their websites, but only a few banks provide transaction internet banking.

(Karjaluoto H, 2003) also subscribed to the views in his research observations that prior computer experience and skills such as excellence in handling internet, e-mail and e-payment had the most noteworthy impact on online banking usage. The technology experience such as ATM, e-ID, teletext and Automats were significant factors for attitude towards online banking among Finland bank consumers.
(Kamth, 2003) The biggest opportunity for the Indian banking system today is the Indian consumer. Demographic shifts in terms of income levels and cultural shifts in terms of lifestyle aspirations are changing the profile of the Indian consumer. This is and will be a key driver of economic growth going forward. The Indian banking sector is at an exciting point in its evolution. The opportunities are immense to enter new business and new markets, to develop new ways of working, to improve efficiency and to deliver higher levels of customer service.

(Lustsik O, 2003) based on the survey of experts of e-banking in Estonia banks found that Estonia has achieved significant success in implementation of e-banking and also on the top of the list in emerging countries. All the major banks are developing e-business as one of the core strategies for future development.

(Mukherjee A, 2003) He concentrated on the concept of trust in online relationship marketing in India and tested a model of trust in which “shared values”, “communication” and “opportunistic behavoiur” were taken as antecedents of trust. They concluded that both shared values and communication played a significant positive role on trust and that trust had a significant positive influence on commitment.

(Rao G R, 2003) He provided a theoretical analysis of internet banking in India and found that as compared to banking abroad, Indian banks offering online services still have a long way to go. The online banking to reach a critical mass, there has to be sufficient number of users and sufficient infrastructure in place.

(Gerrard B, 2003) studied the characteristics of online banking in Singapore and found that computer experience or computer proficiency was an influential factor for adoption of online banking.

(Jasimuddin, 2004) Found that within one year old of the introduction service in Saudi Arabia, Saudi banks had at least decided on their internet presence. 73% of the Saudi banks possessed their own websites and 25% of the websites were offering full service over internet. The banks viewed the internet as a key alternative delivery channel.

(Jadhav, 2004) Described various channels of e-banking services such as ATM, Telephone banking (Tele-banking), Mobile banking, Internet banking and its features. Comparison of public, private, foreign and co-operative banks and barriers to the growth of e-
banking in India are also discussed. Finally, the paper discusses an overview of the major private sector banks such as ICICI, HDFC, IDBI, UTI & GTB banks which provides e-banking services.

The author’s observations are: Many Indian banks are yet to make a desirable progress in implementing the technology and gearing up to confront the challenges posed by the rapid changes that are sweeping the banking sector globally. Private and Foreign banks have been fast in adopting and adapting to the Internet technology. Very few public sector banks offer Internet banking services, whereas; none of the cooperative banks offer Internet banking services. ATM is becoming a most preferred delivery channel from the common banking services. In order to enhance the reach to the rural population in the remote areas, the banks will need to automate the delivery channels in the local language which could eventually lead to shrinking of the number of branches. The banking industry’s security is at a higher risk, due to the advent of e-banking.

(Pikkarainen T Pijjarainen, 2004) Report examined that the amount of information a customer has about internet banking and its benefits may have a significant impact on the adoption of internet banking.

(Mishra, 2005) The paper explained the advantages and the security concerns about internet banking. According to him, improved customer access, offering of more services, increased customer loyalty, attracting new customers are the primary drivers of internet banking. But in a survey conducted by the online banking association, member institutions rated security as the most important concern of online banking.

The study conducted by the author (Abhay, 2006) presented the rapid changes in the financial services environment- increased competition from new players, product innovations, globalization and technological advancement- have led to market situation where battle for customers has become intense. In order to rise up to the challenges, service providers are even more interested to enhance their understanding of customer behaviour patterns. This paper examines the forces that can act as barriers in mobile banking service adoption.

According to(Khalfan, 2006) reasons for e-banking infrastructure investment includes the promise of transaction cost reduction by limiting overheads associated with bank staff and bank branch costs and to provide better services to customers who increasingly desire 24 hour banking. Indeed, Almobil (2005) note that a common reason for bank adoption of e-banking is to maintain the bank’s competitive position and image. Factors affecting consumer acceptance
and adoption of Internet banking have been investigated in many countries such as the US (e.g. Laser et al., 2005; Kolodinsky et al., 2004), Europe (Littler and Melanthiou, 2006; Pikkarainen T Pijjarainen, 2004; Howcroft B, 2002; Karajaluto H, 2002; Daniel, 1999), Australia (e.g. Lichtenstein and Williamson, 2006; Sathye 1999), and Asia (see Yiu et al., 2007; Chan and Lu, 2004; Suh and Han, 2002).

(Lichtenstein, 2006) An interpretative study was conducted of Australian banking consumer’s experience with the adoption of internet banking. The research provides an understanding of how and why specific factors affect consumer-oriented issues influencing adoption of internet banking was provided. Specifically, the findings suggest that convenience was the main motivator for consumer to bank on the internet, while there was a range of other influential factors that may modulated by banks. The findings also highlighted the increasing risk acceptance by consumers in regard to internet based services and the growing importance of offering deep levels of consumer support for such services. Gender differences are also highlighted. Finally, the paper suggests that banks will be better able to manage the consumer experience with internet banking if they understand that such experience involve a process of adjustment and learning over time and not merely the adoption of a new technology.

(IAMAI, 2006) There are 38.5 million internet users in India and the number is set to grow to a 100 million by 2007-08. An estimated 4.6 million Indian internet users are banking online today and with the efforts of the government and the industry, the number is expected to grow 16+ million by 2007-08 including both Internet and Mobile Banking. The growing number of internet users to get a better understanding of this dynamic channel and introduce it as an additional and mandatory touch point to serve their customers.

(Ravi V, 2006) Initially Internet banking was used mainly for the purpose of information sharing and presentation medium. After sometime banks were started using it as a source of marketing their financial product online. With the growth of safer electronic fund transfer services more banks had also implemented internet banking as their transaction and informational medium. There is a plethora of research that stress on examining the relationship among users. Most of them have shown that internet accessibility, awareness, attitudes towards change, proper guidance to operate internet banking services, security concerns, trust on bank
and problem solving attitude of bank employees are the major factors that can drive the adoption of the internet banking services in India.

(R K Mittal, 2006) He discussed that the transaction through technology channels cost much less to the banks than the customers reaching the bank and doing the transactions. In the last decade, banks have invested heavily in the technology. In the use of technology, the new private and foreign sector banks have taken the lead over the public and old private sector banks. Today public sector banks are also investing heavily in technology to compete with the new private and foreign sector banks. In the study, author has identified the different technology issues and challenge such as a choice of the right channel. Justification of IT investment in terms of ROI (Rate of Interest), e-governance, customer relationship management, security concerns, penetration of IT in rural areas, etc. Banks are required to address issues and challenges effectively to stay in business and grow.

(Amin, 2007) He conducted a study on the internet banking adoption among young intellectuals in Malaysia. The aim of the study was to study technology, acceptance of internet banking among undergraduate’s students in Malaysia using the modified Technology Acceptance Model (TAM) as the theoretical framework. The results suggest that perceived usefulness, perceived ease of use, perceived credibility and computer self efficacy are the factors affecting the adoption of internet banking.

(Gita Radhakrishna, 2007) He examined the legal issues specific to internet banking, focusing on the incidence of fraud and its prosecution. The objective of the research was to investigate three questions in relation to Malaysia. Firstly, the incidence of fraud in internet banking; secondly, the adequacy of the relevant regulations and statutes; and thirdly, whether the setting up of a cyber-court would better facilitate the prosecution of such financial crimes in Malaysia. Technology and the borderless nature of the internet present fraudsters with manifold opportunities. ‘Phishing’ leads to identity theft and ‘money laundering’ has been found to be the main threat to internet banking. The newness of the subject and traditional banking secrecy have contributed to a dearth of legal literature pertaining to issues in internet banking, specific to Malaysia. It was found that the applicability of various existing laws and banking practices to internet banking has not been fully tested in Malaysia and is still evolving.
(Srivastava, 2007) He studied consumer’s perception on usage of internet banking. The study focused on the factors that drive consumers to use internet banking. How consumers have accepted internet banking and how to improve the usage rate were also another area of focus. The research found that if skills of consumers can be upgraded, consumers will be more willing to use internet banking. In addition, the study shows that inhibitory factors like trust, gender, education, culture, religion, security and price can have only minimal effect on the consumer mindset towards internet banking.

(Geetika Nandan, May 2008) He discussed the concept of Internet Banking, perception of internet bank customers, non-customers and issues of major concern in Internet banking. The state of Internet banking in India has been explored using various concepts like E-banking scale, and gap analysis related to the various services and the security features offered. In order to have a clear and focused insight about the perceptions of users (and non-users) about Internet banking, a survey was conducted. The findings of the survey provide valuable insights into concern for security, reasons for lower penetration, and likelihood of adoption, which have been used to make useful recommendations.

(Kaleem A, 2008) Bankers consider minimizes inconvenience; minimizes cost of transactions and time savings to be important benefits and chances of government access; chances of fraud and lack of information security; to be vital risks associated with electronic banking.

(Singhal D, A Study on Customer Perception towards Internet Banking: Identifying Major Contributing factors, 2008) He examined and determined the major contributing factors with respect to customer perception towards internet banking. Both primary and secondary data were used, structured questionnaire was suggested to gather the primary data with a sample of 61 respondents. The factor analysis technique has to be used and their result shows that major factors’ like security, utility transaction as well as utility request, ticket booking and fund transfer. More than 50 % respondents accept that internet banking is more flexible, easily accessible and more convenient system to satisfy our customers.

(Hua, 2009) In the common parlance the study of perceived easiness in using websites and the privacy policy found that the most important factor influencing adaptability of E-banking
is security. Further the study noticed that perceived ease of use is less important than privacy and security.

(IAMAI, Report on Internet banking in India, 2009) It was found that only about 12% of online users prefer internet banking as the banking channel in 2009 as compared to 20% of the same in 2008. These figures indicate that a significant number of online users do not use or avoid the use of the internet as a banking medium in India. There has been very limited research done in this field to explore the factors that promote and also factors that inhibits the acceptance and use of internet banking in India. So, it calls for destitution to understand the reasons for not using it.

(M S Khan, 2009) He studied the drivers for change in the evolution of the banking sector and the move towards electronic banking by focusing on two economies - Australia and India. The paper found that Australia is a country with internet ready infrastructure as far as telecommunication, secure protocols; penetration and consumer’s literacy are considered. India by comparison, is overwhelmed by weak infrastructure, low PC penetration, and developing security protocols and consumers’ reluctance in the rural sector. Although many major banks have started offering internet banking services. The slow pace will continue until the critical mass is achieved for PC, internet connections and telephones. However, upsurge of IT professionals with growing demand is pressing the government and bureaucracy in the country to support and develops new initiatives for a faster spread of internet banking.

(Uppal, 2008) The study found that in the post-LPG (Liberalization, Privatization and Globalization) era and Information Technology (IT) era, transformation in Indian banks is taking place with different parameters and the contours of banking services are dynamically altering the face of banking, as banks are stepping towards e-banking from traditional banking. On the basis of five-point Likert-type scale, this paper empirically analyzes the quality of e-banking services in the changing environment. With different statistical tools such as weighted average method and ranking, the paper concludes that most of the customers of e-banks are satisfied with the different e-channels and their services, but the lack of awareness is a major obstacle to the spread of e-banking services. The paper also suggests some measures to make e-banking services more effective in the future.
(Ganesh, 2010) The banking sector has gone through some interesting innovation in the few years. Changes like mobile banking, phone banking, internet banking, ATM machines and doorstep banking have fundamentally altered the way conventional branch banking was done earlier. These changes have increased the efficiency of banks, reducing transaction costs. For instance, one can now operate one’s bank account through a mobile phone without going through mobile through the hassle of visiting the branch. These innovations have enabled banks to move up the ‘value chain’ in terms of their relationship with customers. While the customer is satisfied, the cost savings are also huge. For instance, a regular cash withdrawal is now done by the ATM according to these customers’ convenience. This means bank employees can spend more time with customers on relatively more complicated transactions, which require customized solutions. With rapidly changing business environment, customer expectation are rising. Therefore, regular training on products, processes and technology innovations is of paramount importance.

(Malhotra P, 2010) He showed that most impacting factors of internet banking service in India; through exploratory study the present condition of internet banking was examined and some facilities recommended to the Indian banks. The websites survey was conducted of selected banks in India, which explored during July, 2008 and the selected sample of banks which has operated in India at 31 March, 2007 is of 82 banks. The multiple regression technique has to be applied and the result show in comparison with public sector, foreign and private banks offer to provide an extensive range of facilities and services in internet banking. These impacting factors include the size of bank, financing pattern, bank experience of providing internet services and ownership of the banks.

(Nupur, 2010) He found that satisfaction level of e-banking users is related to reliability, responsiveness, assurance, empathy and tangibles.

(Safeena Rahmath, 2010) The customer’s perspective about internet banking adoption in an emerging Indian economy by using the convenience sampling method for collecting data of the students of educational institutes was investigated by questionnaire. The variables of the research are perceived usefulness, perceived ease of use. The results show that the perceived usefulness, perceived ease of use a perceived risk are the most important factors for the adoption of online banking and also help to make a strategy formulation process.
(Ahmad, 2011) In a study of assessing the impact of e-banking functionality factors over satisfaction, it was found that among all variables security, privacy and content appear to have the greatest impact on satisfaction.

(Aklaq M A, 2011) He examined the complexities or factors that resist the customers to adopt internet banking in Pakistan. For this traditional innovation diffusion model (IDT) has to be used and the selected survey sample was 45. The selected test is chi square test which includes variables like easy to access to computers, familiarity with the technologies, concerns for download speed, unfriendly website design, unreliable website services, misusing of information, security, fear of government on track transaction, people gaining easy access and training needs and as well as awareness campaigns, in which six are found significant. The analysis result shows 67% of the proposed complexities due to familiarity with the internet technology, download speed, website design unfriendly, people gaining easy access, misusing of information, security, fear of government tracking transactions, hinder the users in accepting the adoption of internet technology in Pakistan. It is recommended that banks should focus on the internet banking usage among its customers because their costs associates are much lower than traditional systems.

(Gbadeyan R A, 2011) He scrutinizes the consumer’s choice of banks is influenced by the quality of e-banking service provided. The stratified sampling was used while a survey instrument was developed comprising open ended and Likert type of questions. The instrument contained 36 items and was administered to about 400 respondents’, while 360 completed and returned their questionnaire. The chi square analysis revealed that the quality of e-banking services offered by banks have significant influence on their customers at 95%, 3 degrees of freedom. The paper recommends that various measures should put in place to ensure more security, such as installation of encrypted software, verification system of customers’ identification cards, frequent change of password, examining test questions and using mixed password such as the use of alphanumeric amongst others. The paper concludes 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.

(Prema, 2011) The quick adoption of internet banking can lead to success for the banks, consumers as well as for the economy. The evidence of consumer’s reluctance to use internet
banking for scholarly inquiry about the underlying factors influencing individual consumer’s decision to adopt internet banking. People are cautious and often reluctant to move from traditional ways of banking to internet banking. On the other hand, globalization and its impact on the use of information technology in the banking industry compel banks to “push” clients towards internet banking.

(P S. B., 2011) Internet users in India spend an average 58 hours a week –more than half their waking hours–online a new survey has revealed. Half the net users interviewed by antivirus company Norton admitted that they suffered from withdrawal within the first three hours of being cut off from the web. “Indian spends 12.9 hours browsing, 9.7 hours socializing and 6.1 hours on email every week,” said David Hall of Norton didn’t make comparisons, a survey by market research firm ComScore put Canadians at 45.3 hours a week online, Americans in 38.6 hours and the British in 35.4 hours.

(Sultan Singh, 2011) He evaluated the service quality of internet banking services in India from customers; perspectives and concluded that customers are satisfied with the service quality of four dimensions such as reliability, accessibility, privacy/security, responsiveness and fulfillment, but are least satisfied with the ‘user friendliness’ dimension.

(Habib, 2012) The paper presents the data, drawn from a survey of internet banking consumers and the service providers (banks) that offer internet banking and develops a functional model for maximizing value to the consumers, which the banks may choose to adopt Internet banking strategically. The paper identifies the weaknesses of conventional banking and explores the consumer awareness, use patterns, satisfaction and preferences for internet banking than conventional forms of banking and also highlights the factors that may affect the bank’s strategy to adopt internet banking. It can be concluded that internet banking in India is 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.

(Marhana, 2012) This study aims to analyze the Muslim consumers’ adopters’ category pertaining to the adoption process, banking activities and perceptions on the Internet banking attributes. It also examines whether the demographic factors, product characteristics and categories of adopters influence the usage of Internet banking in the context of Rogers (1983) diffusion of innovations model. The results revealed that the majority of these findings would
have significant implications for Internet banking providers. Muslim consumers have not used Internet banking. However, the future of Internet banking is promising as many of the Muslim consumers fall in the early adopters and the early majority. In addition, the majority of the respondents also indicated that they intend to use Internet banking service in the future.

(Raza Syed Ali, 2012) This study investigates the determinants which attract the customers to adopt Internet banking in Pakistan by employing internal and external customers, on the sample size 210 for internal and 151 for external respondents through using the survey research instrument questionnaire. The confirmatory factor analysis with multiple regression technique has been applied. The result of regression analysis shows that perceived usefulness (PU), information of internet banking (INF), perceived risk (PR), security and privacy (SP) shows that more influence to increase the intention of external customers to adopt Internet banking services while government support (GS) provide more influence for internal customers to adopt internal customers in adoption of Internet banking services. This study proves that external customers can be more emphasized, if they believe convenient in adopting the services. It is recommended that, bank should take some consideration to apply Internet banking by delivering the information in an easier way, provide more usefulness and benefits and also minimize the fraud as providing more security and privacy. This will help the bank to increase their profit by reducing its costs, time saving and retain more potential users.

(Sharma, 2012) The research is based on primary data collected from 520 rural respondents regarding 17 variables which are expected to affect the satisfaction level of E-banking users. The findings of the study showed that more than 60% comprises of non graduates and approx 72% felt uncomfortable in transacting online because of language problem. Most of them were not aware of the multi language provision in E-banking.

(Anil, 2013) Booking of railway and air tickets, hotel reservations and tour programs, paying bills, etc., by internet are gradually becoming popular in India. It is essential to understand more about the trend in the number of persons having access to the internet, the pattern of usage- particularly for purchasing online and the average volume of purchases per user, how this is increasing and any impediments in its path.

RBI has been taking steps to impose on banks to open more branches in rural areas. However, the economics of running a brick and mortar branch business model that supplements
conventional banking with internet banking network. The uses of technology will also provide new banks to expand their outreach, especially in the remote and rural areas.

(Anil, 2013) (Pikkarraninen, Karjalto and Pahnila(2004) define Internet Banking (IB) as an “Internet Portal, through which customers can use different kinds of banking services ranging from bill payment to making investments.” It is the most innovative service offered by banks over the last decade. This transformation from traditional banking to e-banking has been quantum leap change. The aim of this research study is to investigate the factors influencing the adoption of IB in Vadodara, Gujarat, and Western India. The paper provides a detailed understanding of how and why specific factors affect the consumer decision. Survey /Interview data from 300 local respondents was used to accomplish this objective. The empirical findings revealed that adoption of IB is dependent on five key factors. This research study would also help to suggest that how banks would be able to manage consumer experiences by adopting IB services.

(IAMAI, India to have 243 million Internet users in June 2014, 2014) According to the Internet and Mobile Association of India, internet userbase in the country stood at 190 million at the end of June 2013. With more and more people are accessing the web through mobile phones, internet users’ base in the country is projected to touch 243 million by June 2014 a year growth of 28%.

(Manjunath, 2013) Service quality, a measure of the overall value of a service is a key concept in service marketing. The service quality has been a significant impact on customer loyalty. They can lead to customer satisfaction and customer loyalty. The aim of the study is to find customer perceptions on service quality dimension among consumers of bank services. The results show service quality is an important element to create customer loyalty that will lead to customer satisfaction and loyalty. Therefore, in trying to develop strong service quality, bankers should be interested in assessing the degree of customer dependence. The banks service quality depends on the perceptions of their service customers. Satisfied and loyal customers indicate positive perceptions of the banking services.

(Rajarathinam, 2013) In their research, observe that in spite of their security and privacy concern, adult customers are willing to adopt online banking if banks provide them necessary guidance which indicated that consumers who lack electronic banking skill may slowly adopt
internet banking and banks should take necessary steps to upgrade their usage skills by the respective banks.

(Seyyennejad Mohaddeseh, 2013) The main objective of this study is to add to understanding about the role of relationship marketing tactics in customer loyalty. We determined the amount of the sample size with the use of the Cronbach sampling method. To gather data, we used questionnaire with 37 items. Questionnaire reliability was estimated by calculating Cronbach’s alpha. In order to analyze the data resulted from collected questionnaire deductive statistical methods are used and to display some statistical data we used Pearson correlation coefficient and multivariate regression. Findings show that correlation results show a positive relationship between trust, commitment, communication, conflict management and competence as independent variable and customer loyalty as the dependent variable. Therefore, as the level of trust, commitment, communication, conflict management and competence increase, the customer loyalty also increases. On the other hand, based on the correlation analysis results, there is also a positive relationship between relationship marketing as independent variables. Therefore, the increase in relationship marketing enhances the customer loyalty.

(IAMAI, India to have 243 million Internet users in June 2014, 2014) Mumbai is clearly the metro with the highest number of internet users, but Bangalore (perhaps not surprisingly) is the one witnessing the fastest growth in their numbers, a comparison of data put out by its Internet and Mobile Association of India (IAMAI) recently and similar data put out it in 2011 shows. Among the top eight metros, Bangalore and Pune are growing significantly faster than others while Ahmadabad’s pace is decidedly slower, the data shows. It also reveals that some of the smaller metros like Surat and Jaipur are not too far behind the big eight.
India has 100 million internet users. A social networking site, Facebook aims at 1 billion users in the June 2014. India is in the second position after US in internet userbase. Mobile internet users are 26 million by March 2014 and are expected to grow by 32 million by June 2014.

2.3 BENEFITS OF INTERNET BANKING

According to Christopher et al (2006), E banking has become an important channel to sell the products and services and is perceived to be a necessity in order to stay profitable in successful.

2.3.1 BENEFITS TO CUSTOMERS

Net banking has immense potential with the increased focus on paper work reduction. Banks use advanced electronic methods so that customers can view accounts and perform transactions on the Internet or on mobile devices. Some banks offer discounts or waive account maintenance
fees for online customers. There are many reasons why online banking has emerged as a staple of daily life. It is fast, safe and convenient. It also means that there is no more need to travel to your nearest bank for basic services any longer. Here are some of the other advantages that banking online offers:

- **24x7 services** - Online banking transactions can be performed at any time and from anywhere. There is improvement in customer access, since the bank can access more customers within a short time through the internet. Customers have access to their bank accounts and can view transactions 24 hours a day, seven days a week. Customers can perform transactions conveniently on a global scale through their PCs or handheld computing devices. Net banking removes the geographical barriers that exist in traditional banking and has made banking more cost-effective and efficient.

- **Less clutter** - Net banking also reduces the amount of paperwork and filing you'll have to do. The customer can do everything right from their computer.

- **Time savings** - Online banking, undoubtedly, saves your time, allowing you to directly transact from your office, home or wherever you are, provided you are connected to the Web. The medium relieves you of visiting the bank and waiting in a queue.

- **Cost savings** - Web banking is cheaper. With the benefit of having no physical structure to keep up, virtual banks have low overhead. They will also provide lower overdraft fees. Even banks, which are backed by physical buildings encourage on the internet banking with free of charge bill paying services. There are no extra charges and these online banking services are absolutely free. Previously, banks used to charge heavily for all their services.

- **Bucket of services** - The customers can be offered more services through online banking. Net banking allow the customer to pay all of their bills automatically. With a one-time set up, funds can be deducted from their bank account on a preset date and used to pay all of their recurring bills, saves several hours each month. Automatic bill payment also allows saving money on postage, envelopes and checks for customers. Another advantage of automatic bill payment is never forgetting a bill again--it's automatic, so tension is over for the customer.
Customer Orientation towards Internet Banking- Scheduled Commercial Banks

- **Compare Services** - Web banking enables you to compare deals easily. The customer can visit the various online banks and discover their interest rates and policies and compare checking and savings accounts. In a way the customer will be able to identify the interest rates and compare loan terms. It is possible to check the banks' credibility.

- **Convenience** - The biggest advantage that online banking brings to the table is its convenience. We can pay phone and electricity bills via online banking without rushing to the utility company's bill collection outlets. It helps us to avoid unnecessary delayed payments.

- **Faster banking** - Online banking is a faster way of performing banking functions. Even buying goods online, pay bills, or transfer money, it gets done in real-time and within moments.

- **Other benefits** - Online banking has several other benefits. Users can shop online, buy tickets, make advanced bookings, etc. Loan Applications: Through banking on the internet any customer can apply for a loan without even having to visit their local branch. We can sell and buy stocks and shares, open a new account and even close an existing account, all with very little effort on our part.

**2.3.2 BENEFITS FOR BANKS**

Internet banking business is becoming increasingly popular, as businesses are becoming more global in their reach. These are the following benefits extended to banks, which are using net banking.

- **Faster workflow** – Internet banks enable transfer of information more swiftly on-line. (Salawu et al, 2007) In the commercial world, especially in most advanced societies today, money is rather carried on information storage medium such as cheques, credit cards and electronic means that in its pure cash form.

- **Eco-friendly process** - Online banking is an eco-friendly process as it does not consume volumes of paper like conventional banking modes and hence helps protect the environment. It cuts down on paper waste due to cheques, statements and other mail and paperwork. Net banking also cuts down on gasoline usage, as trips to the bank become unnecessary. This contributes to significant savings in the bank.
• **More Customers** - Bank can access more customers within a short time through the internet through online banking, better service levels and strategic marketing initiatives; banks are more able to reach out to more customers than possible through traditional banking through physical location branches.

• **Geographical Convenience** - It is convenient, it isn’t bound by operational timings, there are no geographical barriers and the services can be offered at a minuscule cost (IAMAI’s, 2006).

• **Attractive Rates and Incentives** - Better management practices, consolidated operations and streamlined savings from managing and delivering online banking services allow banks to offer attractive rates and other incentives to customers.

• **Time savings** - Online Banking saves a lot of precious time because as transactions are carried out in seconds and banks can see the updates immediately. It can also provide balance alerts if customer balance reduces and alerts the customer in case of due dates of bill occurs. This meant more time could be devoted to selling products in the branches rather than back office processing and transactions.

• **Cost Effective** - Internet banking is very cost effective. It does away with the need to have too many personnel or clerical staff around in the bank. Not only did computerization allow costs to be reduced, but also reduced the degree of human error inherent in the paper based approach. It also raises efficiency in that many customers can be served all at the same time.

• **Asset Management** - Banking through the internet has made the effective management of all their assets possible. Banks provide sophisticated tools and mechanisms to aggregate accounts, get alerts on market activity, get stock quotes, as well as manages a portfolio of investments.

### 2.4 THEORETICAL FRAMEWORK

In the literature, consumer adoption of internet banking as an innovation is consistent with the theory of diffusion of innovations (Rogers 1983) and the technology Acceptance Model (TAM) (Davis, 1989). TAM involves two primary predictors for the potential adopter – perceived adopter (PU) and perceived ease of use (PEOU) of technology as the main determinants of the
attitude towards a new technology. PU is the degree to which a person believes that using a particular system would enhance his or her job performance; while PEOU is the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). These two beliefs create a favorable intention towards using the IT. Based on the models studied in this study, the framework of factors which are considered for both non–users and users of internet banking are formulated as below:

This research develops and tests a theoretical extension of the Technology Acceptance Model (TAM) (Davis, 1989), Theory of Planned Behavior (TBP) (Ajzen, 1985) and trust and examines the factors that influences the adoption and acceptance of the information technology and system of internet in the banking sector in India, especially internet banking.

**Figure 2.1 Research Frameworks for Non-Users**

The research on consumer attitude and adoption of internet banking showed there are several factors predetermining the consumer’s attitude towards online banking such as person’s demography, motivation and behavior towards different banking technologies and individual acceptance of new technology.

A model, named trust and TAM\(^2\) has been previously presented in exploring the acceptance of online e - shopping setting (Gefen, 2003a). This integrative model placed use of the online system into both system features such as ease of use and usefulness and trust in e-vendors. This result indicated that these variables are good predictors for behavior intention to use the online shopping. However a diffusion of innovative technology related to communication channels, individual, organizational members and social system except for the technology itself (Rogers, Diffusion of Innovation, 1995).

\(^2\)Technology Acceptance Model given by Davis in 1989.
Theory of planned behavior (TPB)\(^3\) is the model widely used in predicting and explaining human behavior while also considering the role of individual, organizational members and social system in this process (Ajzen, 1985). Accordingly the three influences of those in theory, i.e. attitude, subjective norm and perceived behavioral control can be interpreted as attitude for technology should for organizational members and social system, roles and perceived behavioral control for individual role.

As the focus of this study is on the internet banking setting, which is considered as type of innovative technology, organization and social system such as peer or superior influence and self efficacy in computer or external resource constraints should play the important role in determining the acceptance of internet banking (Taylor S, 1995). As a result, an extension of trust and TAM model with TPB including subjective norm and perceived behavioral control and also an intention. Hopefully, this will provide us more information to solve this problem of low usage rate in using internet banking.

2.5 FACTORS INFLUENCING THE NON ACCEPTANCE OF INTERNET BANKING

Demographic factors, many studies have investigated the effects of the customers demographic characteristics such as age, gender and education level on their attitude towards different banking technologies and individual acceptance of new technology. Furthermore (Lee, 2001) recent shows that adopters of internet banking tend to be more highly educated, wealthier and younger with good knowledge of computers and especially familiar with internet usage.

2.5.1 Gender - (Venkatesh V, 2000) He investigated gender differences in the overlooked context of individual adoption and sustained usage of technology in the workplace. They found gender determinant of short term usage and can be used to predict sustained usage behavior in individual adoption and continued usage of technology in work places. When it comes to gender, studies have found that there is a difference between the males and females in using various types of technology (Burke, 2002).

\(^3\) Theory of Planned behavior given in 1989 regarding person’s planned behavior towards technology
2.5.2 Age - The technology acceptance literature proposes that there is a strong relationship between age and the acceptance of new technologies. Older customers are found to have negative attitudes towards technology and innovations. On the other hand, younger adults are seen to be more interested in using new technologies, like the Internet to conduct activities such as looking for new products and product information to compare and evaluate their options. (Czaja and Sharit, 1998; Czaja et al 2001; Lu et al 2003). (Wang, 2003) found that age has a significant influence on user acceptance of Internet banking. Moreover, (Alagheband, 2006) asserts that younger individuals are more likely to adopt Internet banking. Generally, Harrison and Rainer, 1992 suggest that there is a strong relationship between age and the acceptance of innovation where he found that older consumers are found to hold more negative attitudes towards new technologies.

2.5.3 Education Level - Education also plays a significant role with regards to attitude towards technology use. Higher educated customers such as university graduates are more comfortable in using technology, like the internet or Internet Banking. A reason for this is that education is often positively correlated with an individual adoption towards internet banking.

2.5.4 Occupation is also considered an influential factor for non adoption among non users. (Ndubisi N O, 2006) He examined consumer attitudes, system, characteristics and internet banking adoption Malaysia. The research framework links attitudinal constructs such as importance to internet banking needs, compatibility, complexity, trial ability and risk to internet banking adoption. The results of the study reveal that the attitudinal factors play a significant role in internet banking adoption.

2.5.5 OTHER FACTORS FOR NON-ADOPTION AMONG CUSTOMERS
Many factors are seen to be influencing the acceptance of internet banking and it is important to take these factors into account when studying customer attitudes towards Internet banking.

1. Awareness of its benefits
   - Unawareness of internet banking benefits
   - Lack of know how
• Lack of internet access
• Lack of information from banks
• Lack of internet confidence

2. Accessibility
• Non availability of internet connection
• Slow connection, speed
• The restrictive access
• Access difficulty

3. Security
• Lack of computer knowledge
• Fear of loss of information to others
• No secure transaction
• The threat of being a fraud while transacting online
• Chances of Password Leak

3. Risk
• Misuse of personal information may be delivered to another person
• Not have trust in a digital signature
• Virus transmission occurs
• Charge extra on Debit & credit card
• Error in transacting

4. Cost
• Difficult initial setup procedure
• The cost of acquiring a computer
• Cost of internet
• Both cost of computer and internet connection

Lack of awareness is the most important factor that negatively affects Internet banking adoption (Sathye, 1999). (Pikkarainen T Pijjarainen, 2004) He had reported that the amount of information a customer has about Internet banking and its benefit may have a critical impact on the adoption of Internet banking. In addition (Howcroft B, 2002) find that lack of awareness of
Internet banking services and its benefits are found to be the reasons for consumers’ reluctance to use Internet banking services.

*Security concerns* are very important for both companies and consumers who participate in online businesses. Many consumers are hesitant to buy items over the internet because they do not trust that their personal information will remain private. Recently, some companies that do business online have been caught giving away or selling information about their customers.

Risk is also considered another factor for non adoption of net banking among non users. Several of these companies have guarantees on their websites, calling that customer information will be kept private. However, many customers are unaware that their information is being shared and are unable to stop the transfer of their information between companies.

(Alam, 2009) Another factor that would stand in the way of consumer adoption of Internet banking is the cost factor. In Internet banking, two types of costs are involved. First, the normal costs associated with Internet access fees and connection charges and secondly the bank fees and charges. Roth well and Gardiner (1984) observed that there are two fundamental sets of factors affecting user needs, namely price factors and non-price factors. To this extent, Guadagni and Little (1983), Gupta (1988), Mazursky et al. (1987) identified price as a major factor in brand switching. If consumers are to use new technologies, the technologies must be reasonably priced relative to alternatives. Otherwise, the acceptance of the new technology may not be viable from the standpoint of the consumer. In view of the Malaysian Government’s encouragement to move towards the digital era essential costs (access and connection) have been kept at a minimum.

### 2.6 FACTORS FOR USERS

The research framework for users is discussed below in the given figure 2.2.

#### 2.6.1 Perceived Usefulness

According to Davis (1989) perceived usefulness is defined here as the degree to which a person believes that using a particular system would enhance his or her job performance. In many instances, there is also extensive research in the Information System (IS) community that provides evidence of the significant effect of perceived usefulness on usage.
intention (i.e. Guriting and Nelson, 2006; Venkatesh and Morris, 2000; and Venkatesh and Davis, 1996 to name a few).

The proposed relationship between perceived usefulness and behavioral intention is based on the theoretical argument by Wang et al. (2003), and Guriting and Nelson (2006). Wang et al. (2003) found that perceived usefulness has a positive effect on behavioral intention to use the Internet banking. In simple words, perceived usefulness has a significant relation on behavioral intention. Guriting and Nelson (2006) found that perceived usefulness and perceived ease of use significantly determine behavioral intention.

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**Figure 2.2 Framework for user’s factors**

- Factor-1 Perceived Usefulness
- Factor-2 Convenience
- Factor-3 Accessibility
- Factor-4 Quality of Internet connection
- Factor-5 Easy to Understand
- Factor-6 Security
- Factor-7 Trust
- Factor-8 Internet experience
- Factor-9 Satisfaction

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2.6.2 Convenience has been identified by a number of studies as an important adoption factor (AC Nielsen, 2005; Pew, 2003; Ramsay and Smith, 1999; Thornton and White, 2001). A US survey found the main motivator for internet banking to be convenient in terms of 24/7 access and time savings (Pew, 2003). Interestingly, Chung and Paynter (2002) found that many people who did not use internet banking believed they did not need high levels of convenience. Accessibility, which may be related to convenience, has been found important (Ramsay and Smith, 1999). High levels of workplace internet use have also been associated with the uptake of internet banking (Durkin, 2004).

2.6.3 Accessibility of the internet: Availability of access to the Internet is an essential prerequisite for the adoption of Internet banking. The more widespread access to computers and the Internet, the greater the possibility of use of Internet banking. O'Connell (1996) identified lack of access to computers as one of the possible reasons for the slow adoption of Internet Banking. The Malaysian government in a move to encourage consumers to embrace information
technology has encouraged purchases of computers in the last two years by allowing a deduction of RM500 (US $130) from taxable incomes when computers are purchased.

2.6.4 The quality of the Internet connection is seen to be an essential component for any Internet-based application. Sathye (1999) used Internet access as one of the factors affecting the adoption of Internet banking. Without a proper Internet connection the use of Internet banking is not possible. Pikkarainen et al. (2004) identifies the importance of a decent Internet connection and its quality in adopting Internet banking and he concludes that without a proper Internet connection, the use of Internet banking is not possible. In the case of Saudi Arabia, the Internet was introduced in 1998 and is controlled by the Saudi government and firewalls were created to block users from accessing material on the Internet that violates religion or encroaches on the Saudi culture.

2.6.5 Easy to understand
- Information provided about internet banking is accurate
- Web site functions properly and don’t freeze
- Simple to use and easy to navigate
- Interactive website helps to accomplish task

2.6.6 Security
Security, privacy, trust and risk concerns may impact consumer internet banking choices. It was found that 80% of global phishing attacks in the first quarter of 2005 targeted the financial services sector (IDC, 2005). One survey by Chung and Paynter (2002) identified consumer fears regarding transaction security as an inhibitor to the adoption of internet banking. Security has also been identified as a key consumer concern in other internet banking adoption studies (e.g. Black et al., 2002; Siu and Mou, 2005). In Australia, Sathye’s (1999) study highlighted consumer security fears while Ramsay and Smith (1999) found privacy to be a key consumer concern. Trust in the internet gained through long-term internet usage has been found an important factor in the adoption decision (Gartner, 2003b). In the context of consumer attitudes toward internet banking systems, a trust may be related to consumer judgement on security and
privacy issues (Wang et al, 2003). Suh and Han (2002) found trust an important factor in consumer adoption of internet banking using a Web-based survey, while Rexha et al (2003) obtained similar results in Singapore. Moreover, Sathye (1999) found that consumers will not be ready to change from present familiar ways of banking to Internet banking unless their specific need is satisfied.

### 2.6.7 Trust

Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment. The issue of trust is more important in online as opposed to offline banking because transactions of this nature, contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet (Alsajjan and Dennis, 2006; Suh and Han, 2002).

### 2.6.8 Internet Experience

Customers who are central to the banking service are not a homogeneous class. They come from varying socioeconomic and cultural backgrounds. Their perception about the banking services is so dynamic that it may differ from customer to customer and even for the same customer at different points of time, depending on their experience with the website. Successful banking relationships are formed at a human level. Factors which help in retaining the existing customers are:

- Past experience with bank
- Familiarity with the services offered by the banks and simplified procedures
- Knowledge of or experience with competitor’s products and services.
- Brand image banking with a particular bank is regarded as a status symbol.
- Overall queries handling and website convenience
- Extra services or value addition provided by the bank.

### 2.6.9 Satisfaction
According to Kotler (2000), satisfaction is a person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations. The real success of IT in the banking sector depends upon the customer’s satisfaction. Therefore, banks should organize and conduct customer awareness programs in their service area. Banks need to take care of the factors which irk (trouble) the customers and these are shown below:

- Poor service attitude
- Long queues
- Inability of the bank to meet customer needs
- Lack of proper ambience
- Lack of humility that prevents banks from meeting customer needs
- Faster payment/receipts in cash counter
- Positive attitude of the counter staff
- Proper adherence to the standing instructions to the customers
- Correct crediting of interest on deposit accounts and avoiding fraudulent withdrawals.

Researches in the past suggest that service quality and satisfaction are distinct constructs (Bitner, 1990; Bolton and Drew, 1991; Parasuraman et al 1988). The difference is that perceived service quality is a form of attitude, a long-run overall evaluation, whereas satisfaction is a transaction-specific measure. E-banking has become an important phenomenon in the banking industry and it will continue as more progress is made in information technology. The financial industry is gradually experiencing transformation from cash based system to a paperless system that is more convenient and reliable.

2.7 CRM in Financial Services and Banking

Customer Relationship Management is the ongoing series of functions, skills, processes and technologies which together, allow organizations to more profitably manage customers as tangible assets. Technology has enabled marketing efforts to be used to greater effect and efficiency through database management. It also enables the setting up of an internal market of its own customers and identifies cross selling opportunities and defines the profiles of customer segments for bringing in new customers.
Long term success of financial institutions depends upon the effective use of customer database. Samuel (2002), in his research explains that the 21st century customers are global and have a high degree of need for cognition, recognition, approval and respect and it requires a passionate attention and interest in solving the problems of customers. Thus, for successful banking, the key lies in customizing, competing and enhanced customer centric approach and a shift from market share to customer share.

In his conclusion, customer relationship management is explained in four simple steps for successful banking. The customer life cycle stages involve 4 steps -customer identification through referrals, customer relationship development through customization, customer satisfaction through cross-selling, customer retention and increasing their loyalty.

![Customer Satisfaction and Service Quality Diagram]

**Benefits of Customer’s Satisfaction and Service Quality**

*2.8 E-CRM in Banks*

The term E-CRM was coined in mid 1990, when customers started using web browsers, the internet & other electronic touch points (email, POS, terminals, call centre and direct sales. According to Romano (2001) E-CRM is concerned with attracting & keeping economically valuable customers and eliminating less profitable ones.

E-CRM simply indicates CRM database access via the web. It means intranet access for internal users, extranet access for business partners and customers. E-CRM applications are the generic of application systems which handle customer interactions over these new electronic channels of communications.
E-CRM provides the capability to capture, integrate and distribute data/information. Knowledge gained from its organizational website throughout the entire institutions. E-CRM can achieve better understanding by using technology and web based application as important tools to link “front office” –sales, marketing and customer service with “back office”-financial, operations, logistics and human resources. It can reduce the costs involved in communicating to customers, optimize workflow as a result of integration with other enterprise systems facilitate better market segmentation and enable enhanced customer interactions, relationship and personalization opportunities (Adebanjo, 2003).

**Figure 2.5: Linkages between quality, customer service and marketing**

Thus, high level of customer control that translates into customer satisfaction and repeat purchase is the most critical advantage of E-CRM in banks. Other related benefits include decreased cost of sales and promotion, high supply chain management integration and improved logistics management.