CHAPTER 3: LITERATURE REVIEW

3.0 Introduction

Special attention has been given to online banking acceptance in the research undertaken in last few years and many journals have contributed on the issues related to Internet banking (Mukherjee and Nath, 2003). There have been several studies on Internet banking in past which includes study in Australia (Sathye, 1999). The study was undertaken in Singapore (Tan and Teo, 2000). The study undertaken in South Africa is also noteworthy (Hoppe et al., 2001). The works of Internet banking took place in in New Zealand (Chung and Paynter, 2002). Internet banking works of Taiwan has also brought the changes in adoption of Internet banking pattern (Wang et al., 2003). Other researchers in Internet Banking have also explored about the Internet banking (Mookerji, 1998). Several studies have also been made on Internet bank challenges (Pegu, 2000; Dasgupta, 2002; Gupta, 1999; Rao et al., 2003; Ravi et al., 2007).

The drivers of Internet banking have been included in the article "Next-Generation Retail Banking" (Compaq, 2001)-

- Revenues of additional transactions are derived from banks and above their incomes which are offline and online services are charged. The value-added services where the entry is given to provide the banking services related to stock brokerage and foreign banks.
- On the Internet, the savings from reduced transactional cost take place. The customers self-service removes the further requirement for operational staff which in turn leads to less branch sizes, reduced consumable cost like of stationeries.
- The Internet banking offers the facility to customers to be flexible and accessible to banking and in order to attract the customers the banks give the proper services. There will be opportunities of acquiring new customer and products can be sold to existing customers.
• The data acquisition and analyzing of same on database can simplify the relationship of banks with customers. The customer loyalty is made simpler by customizing the products and services which suit the needs of customers.

The reasons for Internet banking acceptance are time, reduction in cost and choice of place (Howcroft et al., 2002). Internet banking is developing because of two fundamental reasons viz. the reduction of branch networks and savings of cost in banks, this leads to increase in use of Internet medium because many customers felt about the excessive time and effort needed in banks with branch networks (Karjaluoto et al., 2003). The core concepts of Internet banking are being described in next section.

**3.1 Review of Core Concepts**

The distribution of bank services is provided to customers with the help of electronic media and communication channels which are interactive and this process is called Internet banking (Salhieh et al., 2011).

Although the Internet is advantageous, banking customers are not adopting Internet banking. This type of banking is like any other technological innovation, but face challenges with its adoption (Patsiotis et al., 2012). The real challenge for marketers is to devise the strategy to prevent Internet banking non-adoption by customers and use of new technologies (Patsiotis et al., 2012).

The importance of customer specific factors which can predict actual Internet banking behavior have been studied in the research (Yousafzai et al., 2012). There are significant differences between Internet banking adopters and non-adopters in terms of easier to operate, convenient, no hassle, reliable, safer to use and good Internet connections (Munuswami et al., 2012).

By making Internet banking operations more easy, the banks can enhance the level of users & can also give more satisfaction to existing ones as they face numerous problems while using Internet Banking (Singh et al., 2012). Internet is the channel of distribution for performing banking transactions on website which is
secure and are taken place in virtual form and retail mode. The leading technology i.e. Internet enables to control their bank transactions and marks the shift in the channel of distribution towards the choice of self-service (Liao et al., 2011; Yousafzai and Yani-de-Soriano, 2012).

Internet banking is preferred by consumer because of convenience and comfort (Khare et al., 2012). Evaluation of Internet banking service quality and impact of satisfaction needs to be explored more and the study is required in Indian context (Adil et al., 2013).

The next section will describe on the factors of Internet banking on which our previous researchers have made the study.

3.2 Review of Factors

It was stated that the functional quality is the quality of interactions of customers that take place during delivery of services (Groonroos, 1990). The quality of outcome received by customer in the service encounter is called technical quality. Davis devised Technology Acceptance Model (TAM) and it is the type of model in which consumer accept and reuse the technology. IT innovations are used in the popular model of technology acceptance.

Consumer chooses Internet banking as per Technology acceptance model. The two factors which have impact on Internet banking adoption are perception of usefulness and ease. The theory of reasoned action adaptation is called TAM (Ajzen and Fishbein, 1980). Davis has developed the model which shows the acceptance of technology and Internet banking adoption. This model is a perfect in which the customers accepts and consume the technology (Davis et al., 1989).

User acceptance for new information technology is specifically tailored (Davis, 1989). Individual attitude to carry out behavior which motivates user's action is known as theory of reasoned action. The perception of usefulness and ease affects the actual usage of technology. The two key beliefs Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) are developed to determine individual's acceptance
of a technology more specifically information system usage. The definition of first belief perceived usefulness is the ‘degree to which a person believes that his/her job performance would be enhanced by system (Davis, 1989). The second belief perceived ease of use is meant with the degree to which the person believes that using a particular system would be free of effort’ (Davis, 1989).

Internet banking is a new term in the distribution of bank services and other techniques which explain is Roger’s theory of innovation diffusion based on consumer Internet banking adoption (Rogers, 1995). He further labeled features of changes that demonstrated in the adoption of change. These are complexity, compatibility, relative advantage, Observability, trialability. Information technology has the positive relation with ease of use in computer technology (Venkatesh et al., 1996).

The study made on the diffusion of all innovations is not always desirable. One change if desired by one user in any situation may not be desirable for another user. Internet banking adoption by consumers owes to the dissemination of innovation (Rogers, 1995). The researcher label five innovation traits that help explain innovation adoption viz relative advantage, compatibility, complexity, trialability and observability. The significant keys of customer satisfaction are faithfulness and commitment (Zeithaml et al., 1996).

If the customer has the insecure feeling about the use of new technology, he can not adopt the technology (Dabholkar, 1996). In comparing transactional Internet banks in mid-1998 to non-Internet banks, it was found little besides relative size to distinguish the two groups (Egland et al., 1998). As Tables 7, 8, and 9 illustrate, the dissimilarities in Internet-based banks and non-Internet banks had appeared in balance sheet and composition of funding by Q3 in 1999, in sources of income and expenditures, and in measures of performance.

The study undertaken has found that the prime concern in Internet banking non-adoption is privacy (Ramsay et al., 1999). The effect of Internet on banking services found six vital dimensions of Internet banking service quality like convenience and
accuracy, reaction and managing complaint, efficiency, queue management, availability and customization (Joseph et al., 1999).

The constraints of time, place and mode are removed by Internet banking implementation (Ballock, 1997). The factors influencing the Internet banking non-adoption by customers are real interactions, existing branches network, fear of technology, low computer acquaintance (Mols et al., 1999).

The researcher has found that the consumers were not aware of Internet banking and its benefits (Sathye, 1999). Knowledge means Internet banking consumer alertness. This refers to the consumers’ alertness of banking transactions with Internet and the support related to Internet banking, and their facts on usage of basic technology (Sathye, 1999). The four channels used for Internet banking are PC banking, Internet banking, managed network and TV based banking.

It was found that even most successful banks offering Internet banking were able to serve only the relatively small share of their customer base (Daniel, 1999; Jordan & Jene, 1999. The study has found that successful information system adoption is influenced by users' attitudes toward and acceptance of a new technology (Succi et al., 1999). The customer in Australia does not adopt the Internet banking as they are afraid of safety and security on transactions over the Internet (Sathye, 1999).

The research has found that the consumers were not aware of the advantages of Internet banking. The knowledge of technology leads the user to use Internet banking (Sathye, 1999). Internet banking services have the feature of saving of time. (Dellaert et al., 1999). The factor which is based on any customer’s balanced explanation of information technology is referred as personal innovativeness (Agarwal et al., 1999).

The B2B transactions are the segment of technology related services which is fastest (Hof, 1999). The use of Internet banking needs to be learned by new online users (Mols et al., 1999). The studies have implied through their studies that drive business customer satisfaction or dissatisfaction with technology driven services (Meuter et al., 2000).
The important effect for marketing theory and practice is the transition from real market place to a virtual market-space where industry players do not have to have a physical presence as compared to traditional counterpart (Norris et al., 2000). The research has found that consumer behavior is affected by factors like Reference groups or social influence (Bagozzi, 2000).

The prime benefits of the banks are access to new customer segment, reaching new segments of population, cost saving, efficiency, bank’s reputation enhancement and good customer service (Jayawardhena et al., 2000). The channel of delivery for all kinds of banking services including enquiry of balance, bank statements, transfer of funds and new banking services with Internet and there is no need to reach the bank for same. This is called Internet banking (Frust. et al., 2000).

The dimensions mentioned above have been connected with Internet banking adoption. The perceptions of Internet service quality are studied in consumers (Meuter et al., 2000). The banks with virtual media earn more profits and are richer than the traditional media (Sheshunoff, 2000). The providers of Internet banking include ChaseManhattan Bank, Citigroup and Wells Fargo. The wireless will become the chosen channel for banking services with the speed of network and improvement of devices (Engen, 2000).

The literature of Internet banking emphasizes on dimensions which are knowledge and has the significant effect on Internet banking acceptance (Polatoglu et al., 2001). The system has security problem and reliability problem in Internet services (Lee et al., 2001). It was found that if customers are not willing to use Internet channels for commerce, the reason is the security concern (Black et al., 2001). The usage of Internet banking had a high impact on significant effect on consumer faithfulness on the users conversely it had different impact on non-users.

It was concluded that ease and quick service is related to technology used for Internet service delivery (Tomiuk and Pinsonneault, 2001). It was found that electronic banking usage had a considerable effect on customer loyalty among the electronic banking users, while it had a negative impact on non-users (Tomiuk and Pinsonneault, 2001).
It was also found the security as influence for consumers who used Internet banking (Polatoglu and Ekin, 2001). The research on Internet banking in Malaysia has found that the important factors influencing Internet banking are security concerns (Suganthi et al., 2001). The factor ease of use has significant impact on Internet banking adoption (Suganthi et al., 2001).

Other researchers based their study in developing countries (Polatoglu et al., 2001). Payment gateways have been introduced by Indian banks which run on systems with security walls (Rao, 2001). It has been stated about one dimension “ease of use” showing its impact on Internet banking adoption (Suganthi et al., 2001).

Several Internet banking service quality dimensions have been identified. These are reliability, responsiveness, competence, courtesy, credibility, access, communication, understanding the customer, collaboration, continuous improvement, content, accuracy, ease of use, timeliness, aesthetics, security and others. It was also projected that some dimensions such as responsiveness, reliability and access are vital for both physical and Internet banks. (Jun et al., 2001)

Internet technologies are not trusted by customers frequently for two exact reasons: system security and concerns on reliability of Internet services (Lee et al., 2001). In context of Internet banking in India, the issues have been raised by many researchers. The first issue is that Internet banking must be supported by the availability of technology and infrastructure. The second issue is Internet banking must have efficient system of convenient banking. The third issue is related to security and operational which are controlled by adequate mechanism (Sharma, 2001).

The fourth issue is that consumer rights are taken care by a proper legal framework. The qualitative research has been made on Internet services adoption and he found that the consumer with high income tend to use Internet channel for their buying (Black et al., 2001). Internet banking is a matter of concern for many banks which are offline and they have to be ready for competition from modern banks which offer services of banks over the Internet (Rajgopalan, 2001).
The qualitative study was made on the adoption of Internet services and found out that those with the highest income use information technology more and are more likely to purchase financial services via Internet channel (Black et al., 2001). In online banking, there are two types of costs associated namely the normal costs associated with Internet access fees and connection charges and another is the bank fees and charges (Suganthi et al., 2001). The factor price determines the perception of customers as per the researcher.

The change is needed in the attitude of consumers so that they can adopt Internet banking (Sangaran, 2001). The rates in adoption are affected by perception of innovation features (Black et al., 2001). It was found that the usage of Internet banking had a substantial impact on loyalty of consumers; conversely it had opposite impact on non-users (Tomiuk et al., 2001). The study was made that the human and information technology based service delivery process has the association with convenience, ease and fast banking services (Tomiuk et al., 2001).

Banks are turning to the level of customized Internet services – Internet banking portals and Mobile banking in an effort to dissolve and develop customer relationships and to lead in competition (Fonseca et al., 2001; Saatcioglu, 2001). Such Internet-based transactions are connected to computer and Internet and this will continue 24 hours a day (Chan, 2001). The important factor for Internet banking for users is security. The factor knowledge has a strong impact on consumers in Internet banking adoption (Polatoglu et al., 2001).

It was identified that the consumer find it easier to utilize the Internet banking if they have knowledge and skills about Internet banking (Polatoglu and Ekin, 2001). The Consumer Bankers The association has conducted study in 2001 and this indicates that the usage of Internet banking has been quiet in the period of 1996-1998 and the service is utilized with less than 10% of the market. This marks the early adoption phase where the banking industry, in its prominent transition has period of ‘anytime, any-where’ banking.

As per the researcher the non-users are scared because of security issues (Howcroft et al., 2002). The factors like time, saving of cost and independence are the prime
reasons for acceptance of Internet banking (Howcroft et al., 2002). Internet banking has the three factors in its acceptance-Time and costs savings and independence (Black et al., 2002). These studies have explained the consumer adoption of Internet banking.

There was emphasis on lack of Internet banking use has restricted the users to adopt Internet banking (Chung and Paynterm, 2002). They further found that non-users of Internet banking do not even feel the need to use the same because of relative advantage. The similar finding (Sathye, 1999) pointed out that the benefits of Internet banking are not known to many consumers.

The infrastructure of web security systems gives less satisfaction to consumers (Black et al., 2002). The drivers of offering online services are ease and accessibility to its customers. Another reason is reduction of cost (Financial Express, 2002). The importance of right technology and need analysis of customers cannot be denied (Pires and Aisbett, 2002). Several transactions which can be performed on bank’s websites are enquiry of balance, third party money transfer, deposit of payroll and paying of bills. They have been recorded in literature of online banking (Karjaluoto et al., 2002).

The factors on Internet banking adoption need to be focused as propounded by past studies. In few critical studies of Internet banking adoption which exist today advise the need for further in-depth surveys and the approval issues (Black et al., 2002).

Finally, when people have to choose between electronic or traditional services, customers go for less costly method (Huang, 2002). The study recognizes the fear of consumer for security. This is the actual obstacle in Internet banking adoption (Chung et al., 2002).

Reference groups have impacted the attitude and Internet banking behavior (Karjaluoto et al., 2002). The customer expectations in Internet banking services are huge and he considers first advantage as ease and second advantage as speed (Waite et al., 2002). It was found with web based survey that trust is the significant factor in Internet banking adoption (Suh et al., 2002). The factors for Internet banking
adoption are divided into consumer category, product category, organization category and channel category (Black et al., 2002).

The Internet technology acceptance factors have been studied in Italy and the relationship between Internet banking and traditional banking has been explored and banks perceive both the format of service delivery as compliment or substitute (Corrocher, 2002).

The permission of customers in performing the transactions like transfer and payments, balance access, viewing of statements of accounts; account details viewing, customization print, bank statements printing, etc. are made by Internet Banking (Ongkasuwan et al., 2002).

With the passage of time, the individuals, consumption and markets have shown growth (Zuboff et al., 2003). The change in facilities have led to new customer relationship management strategies and managing knowledge (Gebert et al., 2003). Only top level of demographics is considered for studying the Internet banking adoption (Gartner, 2003b).

Several choices in market are influenced by consumers; the acquaintance of the choice is the factor for users to stay with the provider of banking (Colgate et al., 2003). The main reasons in diffusion of Internet banking are banks cost saving, branch networks reduction and have shown the path to self-service technology as for the customers the branch banking increases the time (Karjaluoto et al., 2003).

Different perceptions of adoption characteristics are possessed by Internet banking users and non-users (Gerrard et al., 2003). Internet banking non-adopters have more concerns than adopters in issues of security and privacy (Hain et al., 2002). The study of TAM has concluded about people adopting Internet banking; the research implied the individual differences in computer self-efficacy which developed positive relation on Internet banking adoption by using features like ease and usefulness (Wang et al., 2003).
Long-term Internet usage has gained trust and is vital factor for the decision of Internet banking adoption (Gartner, 2003b). When consumer attitude is studied towards Internet banking systems, security and privacy issues judgement is associated with trust (Wang et al., 2003).

The hypothetical analysis of Indian Internet banking and found that as compared to banks abroad, Indian banks which offer online services will take time to develop (Rao et al., 2003). The perceived credibility has two important elements viz privacy and security and affects directly consumer adaptation of Internet banking systems (Wang et al., 2003).

The research found again the trust as important factors in Internet banking acceptance in Singapore (Rexha et al., 2003). The customers prefer to stay with banks only when he has the awareness of the given option. Personal innovativeness means the level to which new innovation is brought by individual’s inquisitiveness to try for the same (Colgate et al., 2003).

Self-service technologies used by Consumer intention was influenced by many hierarchies of consumer attitudes (Curran et al., 2003). They used the qualitative method to examine Thai corporate consumers and found the obstacle in a form of security in Internet banking adoption (Rotchanakitumnuai et al., 2003). The automated service at beginning stage has been pointed by earlier researchers (Long et al., 2004) and there is no largely accepted theoretical conceptualization of such services.

Banking services via Internet is the mode to keep the existing customers and attract others to the bank. The online banking as called Internet portal, through which customers can use different kinds of banking services including bill payment and making investments (Pikkarainen et al., 2004). The researches have implied that reliability, ease of use, personality, accessibility accuracy, security and efficiency influences the Internet banking (Long et al., 2004). 21 items have been developed to assess service quality in e-banking by transforming the original SERVQUAL scale (Jayawardhena, 2004). The five quality dimensions have been concluded by this study viz. access, web site interface, trust, attention and credibility.
The study showed that consumers have high expectations and perceptions on the attributes like convenience and ease of use (Waite et al., 2004). The banking with Internet has multiple benefits from the end of customers (Pikkarainen et al., 2004). He further found that perceived usefulness of online banking was the most influential factors in explaining Internet banking adoption.

The study was conducted in the UK, and the finally was proved that security is the prime concern for Internet banking adoption. The consumers do not adopt the technology owing to secure website from where transactions have to be made (White et al., 2004). The research has found that the concerns of consumer related to Internet banking adoption are privacy, security of Internet and trust (Nissenbaum, 2004). There is requirement of security for increasing the consumers’ confidence in Internet banking usage (Ndubisi et al., 2004).

Many experts have observed Internet security, privacy and trust as consumer concerns (Miyazaki and Fernandez, 2001; Gefen et al., 2003; Nissenbaum, 2004). The customer experience is the focus of Internet banking services (O’Loughlin et al., 2004). The battery of 21 items of service quality has been appraised in Internet banking by using SERVQUAL scale in Internet framework. The concerns comprising of security, privacy, trust and risk have effect on Internet banking choices by means of EFA and CFA (Jayawardhana, 2004).

Security and convenience are significant factors in bank account opening. The other significant factors are features and services availability, attractive interest rates and services charges, fast service, bank image acquaintance, location of bank, size of bank and integrated value added services from other resources (GVU, 2004). It was reported that financial services sector have been targeted by more than half of frauds in first half of 2005(IDC, 2005). Targeting of consumer market has to be made for knowing about adopters in the countries like US, Australia and others (Lee et al., 2005). The findings imply that more stimuli is responsible for Internet banking adoption. The decision making of consumers in Internet banking adoption among all types of demographics was studied (Lee et al., 2005).
The factors were identified to adopt Internet banking services in Thailand by consumers and develop the strategies of banks by studying the findings and increased the rate of adoption. The factors which were noted are attitudinal factors like features of the website and Perceived usefulness. The factor of inhibition is perceived behavioral control i.e. external environment (Bussakom et al., 2005).

In a new survey, convenience is the cause due to which Internet channel was selected in USA (Pew, 2005). Security is the important concern for consumers in Internet banking adoption research (Siu et al., 2005). The difficulties in adoption have been seen in the old age by studies undertaken in Internet banking (Ilett, 2005; Perumal and Shanmugam, 2005).

The issue of gender is significant in Internet banking. Shergill and Li’s study in 2005 found that privacy is important issue for females than males. Although in UK females equate males in using Internet banking. (Ilett, 2005) stated the questions about differences of gender in Internet banking adoption. The female non-users have more security concern than the male non-users (ACNielsen, 2005). The Internet banking has positive the association with customer satisfaction and retention (Alhawar et al., 2005).

The study has found the association between security, comfort, and attitude in Internet banking adoption. The relationship in these factors with respect to customer’s age, yearly salary and education were further explored (Moutaz et al., 2005). Personal innovativeness is the risk taking focus that is present in some individuals and not in others. This exists in certain individuals and not in others. New ideas are taken up by Innovative individuals and they have the skill to cope with higher levels of inaccuracy and develop more positive intentions towards innovation adoption.

The bigger volumes of business and a large number of transactions lead to the development of Internet banking in the USA. Large banks offer more Internet-based services than small banks. It has been found that Internet-based banks are more cost effective than non-Internet banks, but this is comprehensive.
Traditional banks lack the value proposition that attracts Internet banking (http://capco.com). The study has been undertaken in Hong Kong to know the service quality parameters of customers and found four critical factors viz problem handling, productivity, trust and security (Siu et al., 2005). The Internet banking adopters need to be studied in markets of US, Australia and other countries (Lee et al., 2005).

Banks have to develop the measures for addressing the issues with Internet banking non-adoption. The Internet banking demand is also required to be increased. Financial institutions need to gain the findings on several factors which influence the consumer in Internet banking adoption and non-adoption.

The social network’s feedback impacts perception of usefulness and ease and innocent beliefs towards a technological innovation (Yao, 2005). Customers’ satisfaction is the term where product usage shows perception, evaluation and reactions. When expectation of performance is compared with the perceived usage, then evaluation of practical and emotional result take place (Saha and Zhao, 2005).

Effective Internet banking strategy gives results of more revenue, loyalty and faithfulness of consumers than the traditional banking strategy (Fox, 2005). Nine service quality factors of Internet banking are efficiency, responsiveness, reliability, responsiveness, privacy, communications, fulfillment, personalization, technology update and logistic/technical equipment (Saha et al., 2005).

The central system in a bank in real time gets affected when a transaction takes place. Consumer expect saving of time (Marlin, 2005). Satisfactions of customers have positive effect on Internet banking (Al- hawar et al., 2005). The studies have reported Convenience as an important factor of advanced technologies adoption (ACNielsen, 2005).

It was indicated in research that the factors of Internet banking adoption are security and trust, basic service quality, added value, transaction support and responsiveness (Falk et al., 2005). The knowledge of these dimensions was concluded to be significant in Internet banking revolution (Falk et al., 2005).
Three dimensions model was tested and proposed by researchers to evaluate the business environment from adopter’s point of view- functionality, security and usability. Three banks in Brazil for selected for same testing on the model’s dimensions (Diniz et al., 2005).

It was emphasized on Internet bank size and found the size as main feature of online banking (De Young, 2005). This leads to major revenue to banks. The prime activities of banks are deposits and larger bank size may lead to bigger share of revenue. The customer prefers the Internet banking because of ease of use (Beer, 2006). Speed is the vital factor to drive Internet banking as per research (Deutsche Bank AG, 2006). Indian consumers showed huge abnormalities. Few bank customers preferred traditional banking than Internet banking owing to their ignorance.

Better consumer loyalty to bank website are increased when security and privacy risk becomes lower (Flavian and Guinaliu, 2006). Cooperative partnerships are created by the Information technology developments and stiff competition between companies. The lines between industries have disappeared (Weng et al., 2006).

The electronic banking services are affected by the limitations of customer location, their satisfaction and ability of banks in managing the software. Customers are forced to continue the patronage if they are satisfied and thus grow the relationship which leads to continuous loyalty (Boateng et al., 2006). Loyal customer decides fast and is not price conscious (Gan et al., 2006).

Security reasons have made non-beginning of financial transactions by 43% of Internet banking users. They prefer face to face because 39% have not started. Respondents with 22% are unaware on Internet banking usage. According to 10% respondents, sites are not attractive and interactive. 2% says that banks do not provide the facility of Internet banking (IAMAI, 2006). The level of consumer awareness of Internet banking affects the Internet banking adoption.
Table 3.1: Factors of Internet Banking

<table>
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<tr>
<th>Study Undertaken</th>
<th>Method</th>
<th>Factors</th>
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<tr>
<td>Cunningham et al., 1996, Ruggiero, 2000.</td>
<td>Mass media use: Uses and gratifications</td>
<td>Informative, social and economic incentives; Security, privacy and trust</td>
</tr>
<tr>
<td>Bandura, 1997; LaRose et al., 2001; Limayem and Hurt, 2003</td>
<td>Mass media use: Future Satisfaction</td>
<td>Self-regulation, Self-efficacy</td>
</tr>
<tr>
<td>Rogers, 1995</td>
<td>Innovation diffusion</td>
<td>Relative advantage, Complexity</td>
</tr>
<tr>
<td>Davis (1989)</td>
<td>Acceptance of technology</td>
<td>Perception of usefulness, Perception of ease</td>
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<tr>
<td>Gefen et al., 2003</td>
<td>Consumer behavior and online service adoption</td>
<td>Channel knowledge, Experience, Accessibility, Time savings, Security, privacy and trust, Cost</td>
</tr>
<tr>
<td>Burnham et al., 2003</td>
<td>Service transfer cost</td>
<td>Routine, Monetary, Social</td>
</tr>
<tr>
<td>Black et al., 2002; Suh et al., 2002; Shergil et al., 2005; Ilett, 2005; Waite et al., 2004</td>
<td>Internet banking adoption</td>
<td>Ease, Security, Privacy, Knowledge</td>
</tr>
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</table>

Source: Lichtenstein et al., 2006)

It was studied that to access, control and use the account, Internet banking may be the good choice. They labeled Internet banking as the intermediary for making the transactions on the Internet (Kim et al., 2006). Internet banking adoption method proposed contained factors like ease, security, privacy and knowledge (Black et al., in 2002). Acceptance of technology proposed included factors like convenience and perceived usefulness (Davis, 1989).

Innovation diffusion theory propounded by Rogers in 1995 had included factors like complexity and relative advantage. The Internet banking model was proposed (Williamson, 2006). They also studied on dimensions which are important for Internet banking. The study found the following factors significant in adoption of
Internet banking- Attention, accessibility, convenience, self-efficacy, usability, risks and costs, relative advantage, knowledge & support (Lichtenstein et al., 2006)

Table 3.2: Internet Banking Solutions for Banks

<table>
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<tr>
<th>Consumer Issue</th>
<th>Solutions</th>
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<tbody>
<tr>
<td>Lack of awareness of Internet banking and its benefits</td>
<td>Attract consumer attention to Internet services through better marketing, Inform consumers about features, advantages and benefits of Internet banking, especially its convenience. Face consumer concerns about technology and support</td>
</tr>
<tr>
<td>Lack of dedicated unchallenged consumer Internet access</td>
<td>Establish facilities such as dedicated Internet banking kiosks in banks and public places, Develop cheaper mobile alternative technologies, Both of the above would improve perceptions of convenience, shown to be a prime motivating factor in Internet banking use.</td>
</tr>
<tr>
<td>Restrictive workplace access</td>
<td>Offer incentives to businesses to facilitate Internet banking</td>
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<tr>
<td>Lack of confidence in Internet</td>
<td>Offer training of Internet</td>
</tr>
<tr>
<td>Competition with phone banking</td>
<td>Offer training in Internet banking, Market relative advantages of Internet banking, especially the convenience factors</td>
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<tr>
<td>Challenging setup support</td>
<td>Streamline setup procedures and provide set up support</td>
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<tr>
<td>Convenience</td>
<td>Improve screen design and navigation, Integrate banking systems</td>
</tr>
<tr>
<td>Lack of trust; Security and privacy risks</td>
<td>Provide consumer reassurance and information, Improve application security and privacy, and bank information security and privacy. Assist consumers in developing secure Internet banking practices and risk management procedures</td>
</tr>
<tr>
<td>Inadequate knowledge and support</td>
<td>Develop innovative consumer support solutions, Train branch staff in Internet banking. Develop new knowledge management strategies</td>
</tr>
<tr>
<td>Women’s concerns</td>
<td>Develop targeted strategies to improve women’s access and Internet self-efficacy, and address their technological concerns</td>
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</table>

(Source: Lichtenstein et al., 2006)

The Internet banking adoption has been studied by previous researches and found that the main factors that inhibit the adoption of Internet banking are security and scarce operational facilities including power and telecommunications (Eviwiekpaefe and Chete, 2006). It was stated about perceived risk as the critical factors which stop the customer to adopt the online banking (Bauer and Hein, 2006). It was
explored the staff role in banks and thereby increase the online competition (Durkin, 2007).

The banks retain their large branch networks and move towards relationship driven sales culture. It was noted that the important factors for maintaining the trust to online initial trust are perceptions of its use, security, privacy, image and its customization. The intention to purchase is positively affected by Internet trust and acquaintance (Chen et al., 2007).

It was observed that Internet banking consists of systems which enable individual and corporate customers to access their accounts, transact business and get information related to financial products and services with Internet (Kham, 2007). The definition of Internet banking has been given in many ways but the most popular one is given by this research (Arunachalam and Sivasubramanian, 2007). Internet banking is process of banking where a customer can access his or her bank account via PC with Internet, mobile phone or Web browser.

The study had indicated that efficiency is the significant factor in Internet banking adoption (Carmel et al., 2007). This paper showed knowledge gaps related to online service quality measurement and structure, its importance and impact on customer satisfaction. Further, the study indicated the importance of factors which enhances the Internet adoption rate (Carmel et al., 2007). It was observed that customers have attitudes and perception that discourage them from using Internet banking (Gikandi and Bloor, 2010; Isaiah, 2011).

It has been reported that the Indian banking sector was liberalized in early 1990s and was chiefly controlled by the government (Gupta, et al., 2008). The pressure has been created on the performing banks with competitive forces and more stringent regulatory framework. Bank’s survival and growth requires important ingredient – Efficiency. The research has found the factors affecting customer satisfaction in Internet banking (Ibok et al., 2009). They are access of account, account control, use of account, cost/time effectiveness, ease of use, privacy and security.
The study was conducted in Internet banking to know the determining factors of Internet banking. The factors which are significant in Internet banking adoption as per the researchers are utility request, utility transfer, ticket booking and fund transfer. The utility factor has been further cited by the later researchers (Singhal et al., 2008). The shift from traditional banking to Internet banking had taken place and the reasons for the change are perceived ease of use, perceived usefulness and security included in Internet banking (Quereshi, 2008).

It was studied that satisfaction of customers in Internet banking services are determined by four factors namely reliability, accessibility, privacy/security, responsiveness, and fulfillment, but least satisfied with the ‘user-friendliness’ dimension (Khan et al., 2009).

Many Factors actually affect the usage of Internet banking. They are individual norms, faith, intention, bank faith, attitude, perception of its use and ease (Falk et al., 2007). Internet banking is used in many developed countries as it is a cheapest mode of providing services of Internet banking. Their usage incurs less cost for banks (Arunachalam et al., 2007).

Figure 3.1: Technology Adoption Theory

(Source: Falk et al., 2007)
Indian banking makes use of delivery channel which is called Internet banking. This provides the benefits of information and transaction. The adoption level of Internet banking in India is low (Ravi et al., 2007). A satisfied customer is always loyal (Timothy et al., 2007). Customers are able to make the banking transactions through Internet (Laukkanen, 2007). The customers are dissatisfied if customer perception of bank performance is less than customer’s expectation. When the perceived performance exceeds expectations, customers are satisfied and this leads to positive behaviors or outcome (Yau, 2007).

The researcher had studied the key factors of Internet banking adoption in Jordan. This paper also tried to authenticate the suitability of Unified Theory of Acceptance and Use of Technology in Internet banking perspective. The results of this study indicate that both terms provide a good base for future technology acceptance research. The three main factors concluded from this study are performance expectancy, effort expectancy, and social influence (Abu Shanab et al., 2007).

There is direct and significant relationship between the satisfaction of customers and their respective commitment towards banks. More website use will lead to higher commitment and consumer’s prior interactions can make role in changing his commitment to financial services (Casalo et al., 2008).

A Long queue is common in branch banking venue, and it is not surprising if people with knowledge of technology will switch to Internet banking (Kerem, 2008). The major banks in New Zealand are working as a separate legal entity. They all are offering Internet banking services to their customers in New Zealand, works as a separate legal entity.

A uniform approach is applied by Reserve Bank of New Zealand for regulating both traditional and Internet banking activities. Japanese Banks are progressively directing on Internet banking transactions with customers and the same is vital part of strategy. International banks are willing to get hold of the domestic market of any country in order to expand them in the world. These banks need to streamline their business models fit to conditions of India (Gupta, 2008).
More website use can lead to more commitment to the website (Casalo et al., 2008). The previous interactions made by consumers with banks have direct relation with the commitment of consumers. The websites which prove the financial services invite the committed customers.

The trends in Internet banking are probed by the paper and describe the factors which impact the customer use of banking (Dutta et al., 2008). The seven factors deduced from the studies of 19 attributes of Internet banking adoption and the five important factors were encouragement, ease of use, convenience, lifestyle, social aspect and bank image. The dimensions like knowledge and trust deficiency, issues of privacy and security and training issues inhibits the adoption of Internet banking (Dutta et al., 2008).

The channel numbers can be increased by mobile phones and provides self-service options which are low priced. This leads to access to funds, information of banking. The channel of mobile delivers convenience, immediacy, and choice to consumers (Clark, 2008). The study identifies the perception of the customer towards Internet banking and further focus was on quality of service from their point of view. The importance of online user and their satisfaction are essential for growth of Internet banking.

The Internet service quality is the foremost requirement for consumer which decides the frequency of his usage (Loonam and O'Loughlin, 2008). The paradigm shift has taken place in banks. The mode of banking has been changed from traditional to Internet banking (Kautish, 2008). This study focuses on the addition of valuable tools of Internet banking and they are used to acquire new customers and retain the existing ones. The existing customer gives more business to banks. Availability, effectiveness, ubiquity, speed, better performance gives the preference by people for Internet banking.

Banking analysis factorial analysis discloses that the group variables like speed, trust, confidentiality, accuracy, and safety are optimized by services of banks (Gupta, 2008). The banks have factors of dissatisfaction like system integration, cost, and service and support (Warrington, 2008). The consumer adopts Internet
banking because of two factors viz convenience and security (Comninos et al., 2008). The study had brought the non-adorption reasons for Internet banking. The causes are security issues like misuse of accounts, frauds and non-user-friendly, difficulty in remembering details of bank transactions (Sharma et al., 2009).

Ten significant factors were recognized related to the users’ adoption of Internet banking services. The major sources of dissatisfaction were Security and Privacy and they play an important role in shaping the users’ acceptance of Internet banking services and different division of age group, education level and income level were also considered (Poon et al., 2008).

The study reported that the dimensions of online banking adoption are perceptions of Internet usefulness, ease and convenience and acceptance of Internet banking are positively affected by the factors (Safeena et al., 2009). According to researcher, when the customer shows the price tolerance and continuous purchasing to the company this is called retention. This kind of behavior has the intellectual inclination (Power et al., 2009).

In North America and Europe, the studies on Internet have focused on Internet banking adoption (Kim et al., 2009). Risk and security are the important attributes for technology acceptance (Polasik et al., 2009). The relationship in factors of comfort, security and attitude have further been studied and concluded that TAM beliefs and perceived risks (safety, privacy, performance and social) have a direct influence on Internet banking adoption (Alda’s-Manzano et al., 2009).

The growth of Internet banking is slow in European countries. The popular banks are engaged in offering of Internet banking services. The world leaders in terms of Internet penetration are Swedish and Finnish markets. Many types of online services can be seen in them. Internet Banking started quite slow in the country of Australia and then they became fast.

The study suggested that patronage is not only continued by satisfied customers but also referring prospect to the firm will be kept and such continuous support is likely to lower the retention elasticity of the company (Umorok, 2008). When the customer
uses Internet to access the account is called as Internet-based banking. The customers can have modem also to dial up the server of banks to access their accounts. The private network which connects banks with its customers is called extranet. In this network login password is provided by banks to access their accounts. This enhances the security and privacy also.

The Internet banking has three levels in terms of its functioning. The first is informational which the level one is and bank receives the marketing information on its products services on its websites. The second level is called communicative and the third level is known as transactional. All of these are websites but the function take place in different levels (Thulani et al., 2009).

As per researcher the issues of security is less and the direct connection is present between the bank network and the server. The interactions of customers with banks become more active with the help of transactional websites. Emails, inquiry of account, application of loan are the elements which guide the interaction. The communication has become automated with the use of such facilities. The fund’s transfer is not allowed (Thulani et al., 2009). The variables which are credible like trust, Technology Acceptance Model faith, risks of security, privacy, performance and social affects the Internet adoption (Thulani et al., 2009).

The trust can reduce the risks perceived by customers in adopting Internet banking (Alda’s-Manzano et al., 2009). The principal element is the trust which can minimize the issues of security and privacy and may strongly affect the consumer in Internet banking adoption (Alda’s-Manzano et al., 2009). The banks have good efficiency ratio if they have Internet banking than banks which no Internet facilities (Malhotra et al, 2009).

Internet banking system has active users. They have the advantages of convenience, ease of use, time, smoothen the transactions (Aderonke et al., 2010). Internet banking has expanded their geographical reach and may increase customer base through deploying electronic delivery channels at lower cost (Silva et al., 2010). The further study was conducted on other factors which affect the Internet banking adoption and aimed to empirically examine the factors impact in Vietnam. The
factors which were concluded as impact factor of Internet banking adoption are Perceived usefulness, perceived ease of use, trust and government support (Alain et al., 2010).

The study had emphasized on few factors which lead to happy customer; they are speedy service and reliability (Mawa, 2010). The research had brought the determinants which can satisfy the customers of e-banking in Bangladesh. They are reliability, responsiveness, and assurance (Mawa, 2010). The findings of the study indicated that factors like security & privacy, trust, innovativeness, familiarity, awareness level increase the adoption of online banking services among Indian customers (Dixit et al., 2010). Further it was indicated that adult consumers are willing to accept Internet banking despite security issues if given the guidance from banks (Dixit et al., 2010).

The factors have been explored by the study which affects customer satisfaction in Iran. Seven factors model has been derived through the paper. These are convenience, accessibility, accuracy, security, usefulness, bank image, and web site design. The difference between males and females are significantly found in some of factors (Sadehi et al., 2010)

The seven factors of internet banking adoption were studied (Hosein, 2010). They are awareness, accessibility, convenience, trust & security, know - how and support, Internet experience and Internet consumption. These factors according to him influence the adoption of Internet banking by customers. The study had given a framework for the Indian Banking where factors could be used by banks for enhancing the Internet penetration among users.

The banks need to introspect the factors and concerns while targeting their consumption of banking products. The technology may be used as medium for knowing the efficiency of banks. Another study has stated on following factors which are determinants for Internet banking. They are communication, reputation, experience, perceived usefulness, trust, attitude, self-efficacy, intention, and loyalty (Ghamdi et al., 2010).
The acceptance of Internet banking in adults are studied in Indian perspective and found the factors of concern which affect the Internet banking non-adoption, and they are security and privacy issues in Indian context (Dixit and Dutta, 2010).

The study enumerated on the dimensions of Internet banking services viz. website security & privacy while using Internet banking, trust, innovativeness, familiarity and awareness. The customers are more inclined towards security and privacy (Dixit and Dutta, 2010).

The customer preference for Internet banking is impacted by many factors like perceived security, Experience of bank, Internet prestige, Internet skills, marketing exposure, reliability and demographic features (Musiime, 2011).

**Figure 3.2: Internet Banking Adoption Model**

(Source: Hosein, 2010)
The major sources of dissatisfaction are credibility factors like security and privacy which have stuck customer’s satisfaction. The customers get satisfaction from sources like perception in terms of ease of use and its usefulness (Jalal et al., 2011). The researchers included other areas which focused on Internet banking innovations in other developed countries (Lin et al., 2011).

The key driver for the changes taking place around the world is information technology services. The dimensions which impact the Internet banking adoption in India are determined. Internet banking consumption examines the customer perceptions regarding the usefulness, risk, and ease of use. In an emerging economy of India, these factors become important for bank’s strategy formulation process. The consumers who are engaged in electronic billing, have a considerably stronger preference for dealing with a bank. They choose the physical presence rather than an Internet-only bank (Safeena et al., 2011). It was proposed to develop India-specific Internet banking adoption model and application of BSQ (Banking Service Quality) concept (Kamble, 2011).

Table 3.3: Internet Banking Merits and Demerits

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Transaction Cost</td>
<td>High cost involved</td>
</tr>
<tr>
<td>Web Availability</td>
<td>Systems cost and connection</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Theft Recognition</td>
</tr>
<tr>
<td>Ease</td>
<td>Secrecy policy problems and uncertainty</td>
</tr>
<tr>
<td>Service Operations improvement</td>
<td></td>
</tr>
<tr>
<td>Bank Success</td>
<td></td>
</tr>
<tr>
<td>Maintain customers</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Lin et al., 2011)

Research states that the economic impact of the wireless sector in India, China and Philippines, assess that the indirect effect of wireless is at least three times the direct benefits (McKinsey, 2011). The sources of dissatisfaction are credibility factors like Security and Privacy. This has effect on consumer’s satisfaction. Perceived
usefulness and ease of use have come as the sources of satisfaction by this study (Jalal et al., 2011).

The Internet banking growth shows the major barrier in the form of lack of awareness of new technologies and their benefits (Karimzadeh et al., 2012).

The Internet service quality factors impact the study of the customer satisfaction, and the tool was developed to measure the factors of Internet banking service quality. To measure service quality, they also developed the scale of 22 items. The five dimensions resulted from EFA viz Privacy, Reliability, Responsiveness, Efficiency, and Site Aesthetics. CFA had further validated the model (Gupta and Bansal, 2012).

**Table 3.4: Literature Review on Internet Banking**

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Year</th>
<th>Area</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tan et al.,</td>
<td>1998</td>
<td>Singapore</td>
<td>Questionnaire and interview were used. Calculation of mean took place</td>
<td>Internet adopters found Internet useful for connecting with their customers as well as suppliers.</td>
</tr>
<tr>
<td>Nath et al.,</td>
<td>2001</td>
<td>United States of America</td>
<td>Test of Significant Differences</td>
<td>Bankers see Internet banking as a strategic opportunity</td>
</tr>
<tr>
<td>Jaruwachirath anakul and Fink</td>
<td>2005</td>
<td>Thailand</td>
<td>Internet adoption Based planned behavior</td>
<td>Factors of attitude, website features, perceived usefulness, and environment external are critical obstacle to adoption</td>
</tr>
<tr>
<td>Abu Shanab and Pearson</td>
<td>2007</td>
<td>Jordan</td>
<td>Survey based on questionnaire, Multiple regressions were used</td>
<td>Performance expectancy, effort expectancy, and social influence were found to be significant predictors.</td>
</tr>
<tr>
<td>Ho et al.,</td>
<td>2008</td>
<td>Taiwan</td>
<td>Use of online survey, Analysis using SEM</td>
<td>Technology which is Self-service characteristics demonstrated positive effects on customer value (CV) and customer readiness (CR).</td>
</tr>
<tr>
<td>Authors</td>
<td>Year</td>
<td>Country</td>
<td>Methodology</td>
<td>Findings</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------</td>
<td>-----------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sohail and Shaikh</td>
<td>2008</td>
<td>Saudi Arabia</td>
<td>Structured Questionnaire. EFA and CFA were used</td>
<td>Identified three key factors namely <strong>efficiency and security</strong>, <strong>fulfillment</strong> and <strong>responsiveness</strong></td>
</tr>
<tr>
<td>Malhotra and Singh</td>
<td>2010</td>
<td>India</td>
<td>Multiple regression technique is employed</td>
<td>Bank size and experience in offering Internet banking, funding pattern and bank ownership are found to be significant determinants</td>
</tr>
<tr>
<td>Safeena et al.,</td>
<td>2010</td>
<td>India</td>
<td>Use of Structured questionnaire Statistical analysis such as EFA</td>
<td>Perceived usefulness, perceived ease of use, consumer awareness and perceived risk are the important determinants of online banking adoption</td>
</tr>
<tr>
<td>Khare</td>
<td>2011</td>
<td>India</td>
<td>SERVQUAL model. Statistical analysis like ANOVA and multiple regression</td>
<td>Customer’s quality perceptions differ between the two genders and across age categories</td>
</tr>
<tr>
<td>Kamble et al.,</td>
<td>2011</td>
<td>India</td>
<td>Banking Service Quality Scale being used</td>
<td>Private banks scored high on <strong>effectiveness, access, and tangibles</strong> whereas, public sector banks score better on <strong>price and reliability</strong></td>
</tr>
<tr>
<td>Liao et al.,</td>
<td>2011</td>
<td>Taiwan</td>
<td>Model of TAM Confirmatory Factor Analysis and Structural Equation Modeling analysis</td>
<td>Perceived playfulness and habit have more significant effects on users’ intention than perceived usefulness</td>
</tr>
<tr>
<td>Yousafzai et al.,</td>
<td>2012</td>
<td>UK</td>
<td>Customer-specific Internet banking acceptance model(CSIBAM)</td>
<td>The results indicate the importance of customer-specific factors in predicting actual behavior.</td>
</tr>
</tbody>
</table>

(Source: Adil et al., 2013)
The study had emphasized on the factors which affect Internet banking adoption among intellectuals (Muzividzi et al., 2013). The factors which influence Internet banking adoption or non-adoption are security, marketing exposure, Internet skills, reliability, Internet prestige, quick service, the variety of services offered, and Internet experience. The responses were consolidated from both users and non-users, and they agree on the security of transactions as the significant factor in influencing the adoption of Internet banking (Muzividzi et al., 2013).

The study was made on Internet banking services and emphasized that banks must highlight the benefits to customers to attract them to adopt Internet banking (Prema, 2013). The customers of banks transfer funds through transactional websites. They conduct other online transactions of banks also via this level of Internet (Adil et al., 2013). The research has found the extended TAM and states that attitude towards IT and behavioral intention is impacted by perceived usefulness and ease of use (Rupanjali Nath et al., 2013).

The important predictors of customer satisfaction are ease of website use, comfort, accessibility, confidence and responsiveness. Consumer satisfaction is impacted by Internet banking service quality (Sharma et al., 2014). The perception of online banking in the minds of actual and potential consumers should be improved.

Gap analysis is the technique utilized to determine whether firms exceed or fall below customer expectations. The gap analysis applies to any aspect of industry where performance improvements are desired in customer service and relationship management (Singh, 2014). Measuring differences is the first step in enhancing customer satisfaction. Additionally, Fulfillment of customer expectation gives competitive advantages (Singh, 2014).

It was found that IT adoption affects customers of banks on effectiveness, efficiency and competitiveness and globalization of the bank (Vimala, 2015). The channels of banking need to be managed to reach the goal of highly satisfied customers and their retention. If the customers consider the usefulness and desirability of electronic banking services, they will gather the courage to accept Internet banking service (Hojjati et al., 2015).
The factors affecting transition from traditional to e-banking are Convenience, speed and easy monitoring. Different initiatives of banks contribute to Internet banking adoption (Khan et al., 2015). The study has found the insights into the lack of popularity based services reasons in Indian Banks. The academicians will gain the knowledge in offering the service mix to reach online services (Khan et al., 2015).

This study has given the findings on factors which may increase or inhibit the adoption of Internet banking among banks customers. The authentication of theories of TAM and TPB are used to study Internet banking adoption and use (Omotayo et al., 2015).

Previous researchers have focused more on countries and regions other than India. The present study is India-specific and is expected to enhance the body of knowledge in the subject. Earlier studies have used SERVQUAL instrument under which factors were generic. The paper has focused on the factors which impact the service quality of Internet banking. They are convenience, dependence, security, privacy and usefulness, handiness, amenable, reliable and competent (Madhavi et al., 2015).

Table 3.5: Transaction through Internet Banking

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>No of Transactions(In Millions)</th>
<th>Growth (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2010-11</td>
<td>2014-15</td>
</tr>
<tr>
<td>NEFT</td>
<td>132</td>
<td>927.55</td>
</tr>
<tr>
<td>RTGS</td>
<td>49</td>
<td>92.75</td>
</tr>
</tbody>
</table>

(Source: Chauhan et al., 2015)

According to IDC the status of Internet banking have many steps to be taken. Although the banks have taken many measures but they need to adopt structured programme to increase the adoption of Internet banking. The research has reported that the factors of concerns inhibiting the adoption of IB increase, then the
awareness of IB will decrease to a slight extent. The banks should, therefore, work on reducing the concerns about IB (Khan et al., 2015).

For this study, responses have been obtained from actual users of Internet banking facility. Customer satisfaction is a measure of how products or services meet or surpassed customer expectations. In a competitive market like the banking industry, it consists of various strategies aimed at keeping, meeting or exceeding customers’ expectations.

### 3.3 Conceptual Framework and Development of Hypotheses

There have been various studies made in Internet banking adoption by the researchers but the holistic approach for studying the Internet banking w.r.t adoption and non-adoption has not been studied so far. Further in this study the associations between factors are also studied. This research has been carried forward to study on the various factors of adoption and non-adoption for Internet banking customer.

Internet banking is the programmed delivery of new and traditional banking products and services to customers through electronic channels which are interactive (Salhieh et al., 2011). The effectiveness of delivery of these bank products to customers is based on the consumer satisfaction. Customer satisfaction is quite crucial in Internet companies owing high quality products demanded by their customers. If they are unsatisfied, it is easy for them to move away to another site and leave those companies forever (Singh, 2013).

From the above literature review, it is clear that the consumer willingness to adopt Internet banking is based on various factors. The low level of Internet banking adoption has developed the conceptual framework. The consumer behavior based on consumer expectations, consumer perception, and user satisfaction are studied. The Internet banking adoption model is developed. The following Figure 3.3 shows the hypothesized causal relationships among the factors of interest. This model is based on literature about fifteen independent variables that are assumed to affect the Internet banking adoption. TAM is backbone of the conceptual framework. The framework is based on two parts viz. Internet banking adoption and non-adoption.
The study has been made to analyze on the results of adoption factors and non-adoption factors for customers of Internet banking. The banks have been taken into consideration for which these factors have been minutely studied. The conceptual framework is the basis of the Internet banking adoption model which has been proposed in fifth chapter. The framework is extended by incorporating few variables for studying non-adoption of Internet banking. These variables have been analyzed in this study.

These variables affect the Internet banking positively or negatively. According to literature review the positive factors may be reliability, accessibility, accuracy, security, efficiency, responsiveness, fulfillment, perceived ease of use, effectiveness, price, tangibility, performance expectancy, social influence, size of bank and experience of bank. The negative factors for Internet banking adoption may be safety and security, physical presence, ease of use, satisfaction, awareness, comfort and speed. These factors of concerns lead to Internet banking non-adoption.

Figure 3.3: Conceptual Framework for the Thesis:
The study had described the factors as follows (Lichtenstein et al., 2006).

Accessibility:-

“Access to computers is not the issue, but access to the Internet is. We’ve all got computers at home, but not access to the Internet at home.”

Convenience:-

“I choose to use online banking because of the convenience”

Perceived ease of use:-

The banks and financial institutions want everyone to go online, but they haven’t actually set up their system so that people can actually use it.”

Reliability:-

“I do not trust the Internet channel for banking.”

Security:-

“When I do think about it, I realize that what I’ve been doing is waiting until I feel confident that any of my information or details would be secure.”

Price:-

“Price is low in Internet channel.”

Efficiency:-

Flexibility in using Internet channel.

Satisfaction:-

Satisfaction is a measure of how products or services meet or surpassed customer expectations in the case of Internet banking. Customers’ satisfaction is a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product / service (Saha and Zhao, 2005).

Effectiveness:-

In terms of price and time.
3.3.1 Gaps in the Research

The literature review establishes that there are lacunae in the areas of research in Internet banking adoption and non-adoption in India. There have been many investigations undertaken in India in past where the holistic approach to customers for Internet banking adoption and non-adoption model was proposed. The factors of satisfaction and concerns of Internet banking are shown. The factors of adoption and non-adoption of Internet banking have not been studied broadly so far in the past by the researchers who lead to the current study taken up in Internet banking. (Refer to 3.1 and 3.2 in Chapter 3)

3.3.2 Research Objectives

The gaps in earlier studies have made this research to be undertaken in the area of Internet banking where consumer behavior is studied with respect to their adoption and non-adoption. Earlier studies have not made any detailed study on non-adoption factors.

Based on the above discussion the research objectives of this doctoral work are:

1. To identify factors of adoption and non-adoption of Internet banking.
2. To measure satisfaction levels of customers of Internet banking.
3. To explore consumer expectation from Internet banking.
4. To suggest an Internet banking adoption model of users in India

The different hypotheses of the study have been made as follows-

3.3.3 Research Hypotheses

The hypotheses are framed based on objectives. The factors of satisfaction for Internet banking adoption have been studied through the first three hypotheses. The factors of concerns for Internet banking non-adoption have been studied by the last three hypotheses.

- 1H0- Significant differences do not exist in factors of satisfaction in the case of Internet banking adoption between Public Sector banks.
- 2H0- Significant differences do not exist in factors of satisfaction in the case of Internet banking adoption between Private Sector banks.
- 3H0- Significant differences do not exist in overall factors of satisfaction in the case of Internet banking adoption between Public and Private Sector banks.
- 4H0- Significant differences do not exist in factors of concerns in the case of Internet banking non-adoption between Public Sector banks.
- 5H0- Significant differences do not exist in factors of concerns in the case of Internet banking non-adoption between Private Sector banks.
- 6H0- Significant differences do not exist in overall factors of concerns in the case of Internet banking non-adoption between Public and Private Sector banks.

This study has collected the data on factors of Internet banking adoption and non-adoption based on different demographics. This research has made an investigation into different aspects of Internet banking consumer behavior. The customers’ satisfaction and concerns have been studied in both Public Sector banks and Private Banks in India.

The research methods have been chosen based on research framework of the study. The next chapter will describe the methodology used for this framework.