CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

1.1 Introduction

The industrialization brought seeds of change in the life style of man and his way of doing things. Many things that were performed by people hand and finger skills were carried away by the speed and efficiency of machines. Since industrialization lead to the invention of many new types of machinery so physical human labour involved in day to day activities got eliminated to a greater extent. Also with the development of different tools of information technology and communication the importance of physical strength diminished to a greater extent. However, the human brain required to be more functional. In the organizational set up the need of storing, retrieving and analysing of information became a basic necessity for successful governance in an organizational set up. Information is an inevitable part of the organization, managing information with the help of systems is of great necessity. Centuries ago people relied on one another because they didn't know how to manage the data they are exposed to. On the other hand in today's generation, almost every single transaction in the organization is dependent on data for their companies to thrive and compete. It can be as simple as a database for record keeping to something as advanced as a computerized system to help them generate millions in revenue. Database software like sales force automation are specifically used in sales, marketing departments. Customer service departments use specifically CRM software which can keep track of customer data, analyse it and produce results. Similarly, finance departments can use accounting and budgeting software for their purpose. Some of the latest software for running and managing business are ERP solutions. In the current era of technology revolution, no industry in the world is untouched to the use of information system and banking industry is no exception. Saha (1986) opined that there have been tremendous growth and diversification in banking activities over last one-and-a half decades. Development of a sound and adequate information system has become a necessity to meet the challenges of growth and diversification. Rawani and Gupta (2002) highlighted that due to phenomenal increase in the size, spread, and activities undertaken by banks in India, because of increase in number of bank branches over last three decades and also with the entry of new banks, there is intense competition for attracting and retaining the customers. Under these circumstances, the use of computers and allied technologies has become inevitable to achieve a satisfactory level of customer service. According to Gulati, Sivakumaran, and Manogna (2002), bank automation in India dates back to early 1970's with the use of bulky IBM machines involving the laborious process of feeding data on punched cards were confined to complex inter-bank reconciliation and payroll accounting. Again Jadhav (2011) says that the major breakthrough in computerised banking started with the use of Advanced Ledger Posting Machines (ALPM) in 1980s. The massive computerisation started at the branch level with the focus on automation of transactions. This reduced errors in calculations and transactions. Customers started getting error free services and were supplied with printed account statements. Islands of computerization started appearing on the surface of the Indian banking ocean as public sector banks, after initial resistance, began frantically computerizing their branches in a phased manner. A large number of customers and branches typically characterize public sector banks controlling between 75-85 percent of the market, public sector banks realized that a legacy of manual systems would impede competitiveness and a shift to computerized banking was the way ahead (Gulati, Sivakumaran, and Manogna,2002). The guidelines issued by Reserve Bank of India with the recommendations of Rangarajan Committee in the late 1980's and the Central Vigilance Commissioner CVC (1998) helped most of the banks to computerise their branches in the later years. But major emphasize on adoption of information technology and computers in their mainstream business of banks in India started after the economic liberalization of 1991. The reason behind that was the cut through competition from the foreign banks because their branches were established in India and followed by their excellent customer service and facilities with the help of computers and technology. In the year 1993, the Employees' Unions of Banks signed an agreement with bank managements under the auspices of Indian Banks' Association (IBA). This agreement was a major breakthrough in the introduction of computerised applications and development of communication networks in Banks[1].

For automation in banks, (Chawla, 2004) two options were put forth i.e. either to automate the front office or back office. Many banks opted for automating the front office by using Advanced Ledger Posting Machines (ALPM) in the first phase. Banks like State Bank of India, which is a public sector commercial bank, concentrated on the back office automation at the branch level. In the second phase automation took place in both the front end and back end operations in banks

[1] http://kannanpersonal.com/inbank2/e-banking/rbi-role.html

within a particular branch, with its own database. After the entry of new private sector banks and with the advent of internet, banks opted for a different model having a single centralized database instead of having multiple databases for all their branches. Internet made it easy to share the databases and maintain a centralised database at a low cost. Internet has provided a paradigm shift in the working of banks (Jadhav, 2011). With the emergence of World Wide Web and networking technologies and also because of low cost of the networking communications, banks in India led to the integration of branches throughout the country. Centralized operations and process automation using core banking applications and IP-based networks improved efficiency and productivity levels tremendously. Core banking applications helped banks to shift from 'branch banking' to 'bank banking.' This basically means that a customer will be treated as a bank's customer than just the customer of a particular branch, which was the case that (Chawla, 2004) pointed out. The growing applications of computerised networks to banking reduced the cost of transaction and increased the speed of service substantially (Chang, 2003). Competition and urge for achieving large market share, banks in India started to provide different banking channels for the customers.

This was possible because of development of sophisticated information communication technology and networking models. Competition and the constant changes in technology and lifestyles have changed the face of banking. Nowadays, banks are seeking alternative ways to provide and differentiate amongst their varied services. Customers, both corporate as well as retail, are no longer willing to queue in banks, or wait on the phone, for the most basic of services (Rani and Komal, 2012)

As discussed by Turner (2001), progress in information technology has slashed the costs of processing information, while the internet has facilitated its transmission, thus bringing change in the very essence of the banking business. Around the world, electronic banking services, whether delivered online or through other mechanisms, have spread quickly in recent years. Turner (2001), also highlighted that to cope with the pressures of growing competition, Indian commercial banks have adopted several initiatives and E-banking is one of them.

1.1.1 Electronic Banking Definition

The definition of electronic banking varied from time to time. Neisture (2003) defines electronic banking as provision of banking products and services through electronic delivery channels. E-banking is defined as the automated delivery of new and traditional banking products and services directly to customers through electronic, interactive communication channels (Salehi, 2010) . Electronic banking refers to several types of services through which bank customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999); (Mols, 1998); (Sathye, 1999) and (Burr, 1996), for example, describes it as an electronic connection between bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of following platforms: (a) Internet banking (or online banking) (b) telephone banking (c) TV-based banking (d) mobile phone banking, and E-banking (or offline banking).

A visible presence of E-banking was evident to the customers since 1981, with the introduction of the automated teller machine (ATM). Innovative banking has grown since then, aided by technological developments in the telecommunications and information technology industry. The early decade of the 1990s saw the emergence of automated voice response (AVR) technology. By using (AVR) technology, banks could offer telephone banking facilities for financial services. With further advancements in technology, banks were able to offer services through personal computers owned and operated by customers at their convenience, through the use of internet proprietary software (Baghdadi, Rizvi, & Rizvi, 2011). Some of the important events in India in the field of E-banking are the arrival of card-based payments- Debit, Credit card late 1980s and early 1990s, introduction of Electronic Clearing Services (ECS) in late 1990s, Electronic Fund Transfer (EFT) in early 2000s, RTGS in March 2004, National Electronic Fund Transfer (NEFT) as a replacement to Electronic Fund Transfer/Special Electronic Fund Transfer in 2005/2006 and CTS in 2007 (Sawant, 2011).

The competition the then has been especially tough for the public sector banks (PSBs), as the newly established private sector and foreign banks have already sharpened their competitive edge. Private banks was able to leverage on low-cost channels such as ATMs and net banking to the optimum levels contributing to reduced operating costs. Banks have realized that shifting customer access to lower cost channels can help bring down operating costs (Chawla, 2004). Every bank then wanted to minimize their cost of operations for simple brick and mortar activities and hence thereby decided to provide different electronic delivery channels of banking activities by replacing human labour. With the introduction of electronic means of banking and setting up of Automated Teller Machines, the first time banks started to empower the customer for his own transactions.

According to Srivastava (2007), that pace at which technology in internet banking proceeds doesn't march with the customers' usage rate. Even though banks are more interested in adopting new technology to differentiate themselves in competitive market, they are not getting expected ROI. So, is this the fault at the end of the technology or consumers' perception or consumers' lack of skills or will?

1.2 Statement of the Problem

A number of studies have taken place to find out the attitude, characteristics, perception and behavior of consumers towards electronic banking specially internet banking. Mahmood (2009) in his study mentioned that out of all respondents who have access to internet almost half of them use electronic banking. Mannan (2010) made a study with an objective of analyzing the implementation of technology in Indian banks and understanding the customers' perception. In the research of (Srivastava, 2007), he focused on what are the customer's perceptions about internet banking and what are the drivers that drive consumers. He also discussed how consumers have accepted internet banking and how to improve the usage rate. Singhal and Padmanabhan (2008), explores the major factors responsible for internet banking based on respondents' perception on various internet applications. His study tries to examine whether there is any relation with the demographic variable (e.g. gender) and respondents' perception about internet banking; and, whether the user and non-user perception differs.

Service sector is largest and fastest growing sector in the world economy, accounting largest share in total output and employment in most developed countries (Ahmed and Ahsan, 2011). The share of services sector in total GDP is 47 percent in low income countries, 53 percent in middle income countries and 73 percent in high income countries (Ahmed and Ahsan, 2011). In India the Economic Survey 2011-2012 points out that the Services Sector grew by 9.4 percent. The Survey reveals that the share of services in India's GDP at factor cost (at current prices) increased from 33.5 percent in 1950-1 to 55.1 per cent in 2010-11 and to 56.3 percent in 2011-12 as per Advance Estimates (AE). If construction is also included, the Service Sector's share increased to 63.3 percent in 2010-11 and 64.4 percent in 2011-12. Projecting the employment figures the survey says that while agriculture continues to be the primary employment-providing sector, the services sector (including construction) is in second place. As per the National Sample Survey Organisation's (NSSO) report on Employment and Unemployment Situation in India 2009-10, on the basis of usually working persons in the principal status and subsidiary status, for every 1000 people employed in rural and urban India, 679 and 75 people are employed in the agriculture sector, 241 and 683 in services sector (including construction) and 80 and 242 in the industrial sector, respectively.

Zheng (2010) said that high education group is most likely to adopt internet banking. Income levels and education play a vital role in their adoption and usage of tele-banking technology (AL-Ashban and Burney, 2001). Stavins (2001) also opines that education level has a positive effect on adoption of E-banking. According to him consumers with more years of education are more likely to use Internet banking. Kim, Widdows, and Yalmazer (2005) opined that educated people are more likely to use internet banking and since saving time has greater value for them, internet banking, guarantees reduction of the time needed for money transactions. Thus, employed or job holders have higher education levels and hence adoption of E-banking is more likely.

Stavins (2001) points out that both white collared and blue collared workers have higher likelihood of adopting E-banking than those who are unemployed. Kim, Widdows, and Yalmazer (2005) highlighted that consumers who have relatively more opportunity to use computer or internet in their workplace than others, their ability to use technologies related to computer or internet might be higher than others. Therefore people from service category are in a better position to use internet banking or electronic banking.

Jun (2005) also said that occupation has an impact on adoption of internet banking. Mannan (2010) made an occupation wise analysis of the respondents and found that 45 percent of the total respondents who use E-banking are from service category, business category occupies only 15 percent professionals are 7 percent of the total and students are 30 percent of the total. Since people in service category are exposed to computers and internet and hence more likelihood of banking over electronic media.

ATM is a well known E banking channel and according to Pandian and Sharma (2012) majority of the ATM card holders' occupation is salaried class respondents. According to the study of Joshua (2009) conducted in India, electronic banking channel usage and their perceptions pertaining to overall characteristics of the bank, the salaried classification has the highest number among the respondents with 56.7 percent, followed by the business/self employed category with 29.1percent. As discussed by Gupta and Bansal (2012), maximum respondents who use internet banking i.e. 48 percent are engaged in service occupation, followed by business persons and self-employed professionals at 27 percent and 12.7 percent respectively. In the demographic study of (Sharma, Dhaundiyal and Srivastava ,2012) it can be inferred by combination of both private and public sector banks respondents that people from service category are the majority followed by business category, who are aware about the different banking services provided by the banks like balance enquiry, E-banking, Insurance Products, Mutual Funds, Funds Transfers, Mobile Banking, Tele Banking, Credit and Debit Card, and Various Loans Scheme etc. Kaushal (2012) wanted to find out Impact of E-banking on operational performance and service quality of banking sector in India, made a study of the personal profile of the respondents. He found that out of 400 respondents about 43.3 percent of the respondents are serviceman, 20.5 percent are businessmen and 17.5 percent are professionals who use the transactional websites i.e. E-banking enabled websites. Moreover in India 95 percent of the salaried class have bank accounts (Sisodia, *et al*, 2005). Thus, there is a requirement to find out the behaviour of salaried employees as regards to electronic banking delivery channels.

Now we know that quality of product or service leads to customer satisfaction, which leads to customer loyalty, which leads to profitability. Ashtiani and Iranmanesh (2012) says that many marketers consider word of mouth as one of the most powerful marketing communications, especially when expressed by a familiar and trusted person. Arasali, Mehtap-Samdi, and Katircioglu (2005) believe that positive word of mouth about banks is customer recommendation of the bank to others. On the other hand, Ghafari Ashtiani, Charsetad, and Abbasi (2009) have discussed the factors associated with adoption of electronic banking. One of which being positive word of mouth. Again in an organization or at work place, word of mouth communication is considered as an important component of workplace communication. The satisfaction on the E-banking delivery channel and specifically efficient, easy usability of the E-banking channels can also spread positive word of mouth among same class of people for adopting E-banking delivery channels.

Banking organizations looking for sustainable business and competitive edge will always try to retain and increase number of customers and since E-banking is a way of retaining and increasing customers through innovation diffusion hence usability of the E-banking delivery channels are a major concern. Usability evaluates the quality of user interaction with the site. Lost business happens daily at many online banks due to poor usability of their websites. Research shows that 50 percent of prospective customers registering for online banking bail out before signing up, mostly due to problems navigating the site, completing online forms, security fears, and understanding content and feedback (Chris, 2004). Mahmood

(2009) pointed out in his study that nearly half of the respondents found the Electronic Banking website content to be excellent or good. However, the survey noted concerns regarding the ease of use of these websites. Along with all, to sustain in the competitive market, it is necessary and beneficial for the banks to find out their position in overall electronic delivery channel medium among all players in the same industry.

So, the following research questions arise:

(i) Is there any socio economic aspect in adoption of electronic banking among salaried class of society?

(ii) Is there any role of E-banking delivery channel services towards development of loyalty for the same among the salaried class of society?

(iii) Is there any relationship between satisfaction of E-banking delivery channel and spreading word of mouth for similar transaction among friends, colleagues and relatives?

(iv) What is the performance of the E-Banking services of different banks and comparison of the performance of different banks?

1.3 Review of Literature

Customer satisfaction, loyalty and word of mouth etc. has always been marketing concern for organizations selling both product and service. There was a time when organization were less and competition too. Managers at that time were not that much concerned regarding customer satisfaction, loyalty etc. Customers' attitude has changed a lot from earlier time. They are now much more critical and vocal for unsatisfactory services as options available to them is plenty. Rawani and Gupta (2002) highlighted that due to phenomenal increase in the size, spread, and activities undertaken by banks in India because of increase in number of bank branches over last three decades and also with the entry of new banks, there is intense competition for attracting and retaining the customers. Under these circumstances, the use of computers and allied technologies has become inevitable to achieve a satisfactory level of customer service. Analysis of Customer satisfaction, loyalty and word of mouth etc for electronic delivery channels are important for the longevity of the banks in the competitive market.

Lichtenstein and Williamson (2006) in his study,' Understanding Consumer Adoption of Internet Banking', reports key findings from an interpretive study of Australian banking consumer experiences with the adoption of internet banking. The paper provides an understanding of how and why specific factors affect the consumer decision whether or not to bank on the internet, in the Australian context. A theoretical framework is provided that conceptualizes and links consumer-oriented issues influencing adoption of internet banking.

Tan and Teo (2000) in his study opined that attitudinal and perceived behavioural control factors, rather than social influence, play a significant role in influencing the intention to adopt internet banking. In particular, perceptions of relative advantage, compatibility, trial ability, and risk toward using the internet were found to influence intentions to adopt Internet banking services. In addition, confidences in using such services as well as perception of government support for electronic commerce were also found to influence intentions.

In the study of Laukkanen and Pasanen (2008) , 'Mobile banking innovators and early adopters: How they differ from other online users?' found out that demographics such as education, occupation, household income, and size of the household do not influence mobile banking adoption, while age and gender are main differentiating variables.

Suranto and Mattila (2004), in their study 'Mobile Banking and Consumer Behavior – New Insights into the Diffusion Pattern', found out that Information sources (i.e., interpersonal word-of-mouth), age, and household income significantly influence mobile banking adoption.

Naseri and Elliot (2011), in his study 'Role of demographics, social connectedness and prior internet experience in adoption of online shopping: Applications for direct marketing', found that adoption of online shopping is significantly decreased as consumers' age increases. Some other findings are like men are more likely to adopt e-commerce than women, education exert a significant and positive impact on the adoption of e-shopping, consumers in managerial/professional occupations exhibited greater propensity to adopt online shopping, adopters of consumer e-commerce are more likely to be married/couple than never married/ widowed /separated/ divorced, household size does not affect adoption of online shopping.

Chang (2005) in his study 'Dynamics of Internet Banking Adoption', found that 45 years old or more is more likely to adopt IB than younger generations between ages 13-24, Females are marginally more likely to adopt internet banking than males, people with higher education (*Edu*) are less likely to adopt internet banking than those with less education, high income group is more likely to adopt internet banking than low income group.

In an Indian study of (Khandelwal, 2013), 'E-banking: factors of adoption in India', highlighted that demographics play an important role in the adoption of E-banking facilities as it has been seen that age and gender factor considerably affects the adoption.

Petruzzellis, Romanazzi, and Gurrieri (2008) in their study, 'Loyalty and customer satisfaction in retail banking, the role of social network', highlighted that there is a positive relationship among customer satisfaction, customer loyalty, and profitability.

Hamid (2012) found that there was a significant positive effect of E-Banking Services on customer value and customer loyalty.

Floh and Treiblmaier (2006) made a study to investigate the importance of antecedents of online loyalty such as trust, quality of the Web site, quality of the service and overall satisfaction. A survey among more than 2,000 customers of an Austrian online bank was conducted and a structural equation modelling approach was used to gain important insights into how customer retention in the online banking business can be ensured.

Yee and Faziharudean (2010) made a study which attempts to develop a model based on the usage of information system, with the purpose to investigate factors influencing customer loyalty towards internet banking websites. Factors that influence customer loyalty towards internet banking website in Malaysia have been investigated and tested. The study also attempts to identify the most essential factors among those investigated: service quality, perceived value, trust, habit and reputation of the bank. Based on the findings, trust, habit and reputation are found to have a significant influence on customer loyalty towards individual internet banking websites in Malaysia. As compared to trust or habit factors, reputation is the strongest influence. The results also indicated that service quality and perceived value are not significantly related to customer loyalty.

Afsar, Rehman, Quereshi, and Shahjaahan (2010), made an attempt to find the factors of customer loyalty and their relationships with the banking industry in one of the developing countries, which is Pakistan. Then analyzing the relationship among different factors, a model for the customer loyalty is proposed at the end of the research. Perceived quality, satisfaction, trust, switching cost and commitment are the factors which influence the loyalty of the customers.

Rodrigues and Proença (2010) highlighted that there is a positive correlation between the rate of satisfaction and the positive word-of-mouth.

Das (2013) studying customer satisfaction and word of mouth in Indian Banking sector found out that satisfaction has a significant positive impact on WOM communication.

Chen (2011) examines the exogenous antecedents of loyalty in the purchase of 3C products. According to the study, loyalty is influenced significantly by technology readiness, satisfaction and electronic word-of-mouth.

Ashtiani, Charsetad, and Abbasi (2009) discussed the factors associated with adoption of electronic banking. One of which being positive word of mouth.

Ashtiani and Iranmanesh (2012) says that many marketers consider word of mouth as one of the most powerful marketing communications, especially when expressed by a familiar and trusted person. Since the perceived risk related to buying services is greater than when we buy a good, customer are more likely eager to trust more on word of mouth in their buying behaviour.

Arasali, Mehtap-Samdi, and Katircioglu (2005) believe that positive word of mouth about banks is customer recommendation of the bank to others.

Joseph, McClure, & Joseph (1999) in their study, 'Service quality in the banking sector: the impact of technology on service delivery', found out the dimensions of service quality as convenience/accuracy, feedback/compliant management, efficiency, queue management, accessibility, customization.

Saha (2011), study mainly focuses on investigating the major factors that influence online customers' satisfaction with the overall service quality of their banks. This research study revealed that banking needs, followed by core services, problem resolution, cost saved, convenience and risk and privacy concerns were the major factors that strongly affect the overall satisfaction of online consumers. On the other hand, feature availability and consumer continuation were found to moderately affect the overall satisfaction of customers using Online or internet banking services.
As regards to website usability the study Arunachalam and Sivasubramanium (2007) found that the user experience in internet banking was a construct of three underlying dimensions: satisfaction, appearance, and ease of use. In addition, when markets of electronic services mature a good user experience of customer could be

a competitive advantage, with which companies could differentiate their products and services. From this perspective, it could be argued that evaluation of user experience and different user experience scales will be likely needed in the future'.

Mahmood (2009) pointed out in his study that nearly half of the respondents found the EB website content to be excellent or good, however, the survey noted concerns regarding the ease of use of these websites.

1.4 Research Gap

People in service category are one of the maximum users or probable users of electronic banking. Though numbers of studies have taken place to find out the attitude, characteristics, perception and behavior of consumers towards electronic banking but practically very less study has been taken as regards to working people or employees of private, public or government enterprises. Hence, the attitude and behavior towards E-banking channels among job holders need to be studied. At this juncture, the present study is undertaken to address the salaried section of people in Barak Valley in Assam.

1.5 Objectives of the study

The main objective of the study is to find out the attitude and characteristics of salaried employee section of society towards electronic banking delivery channels. The employee section of the society is literate, have income to spend, have their bank accounts and also access to computers and other electronic medium. Many of them opt for using of electronic banking channels such as internet banking, mobile banking, debit cards, credit cards etc. Thus, in order to find out the characteristics and attitude of the target population and performance of banks as regards to E-banking delivery channels, we need to proceed through the following sub-objectives:

(i) To find out the socio economic aspects that influence the adoption of E-banking delivery channels among salaried employees.

(ii) To find out the role of E-banking delivery channel services in developing loyalty for usage of the same among target population.

(iii) To find out the relation between the level of satisfaction and 'word –of-mouth' of the target population on E-banking delivery channels.

(iv) To measure the performance of banks, in the different dimensions of E-banking services, as perceived by the target population.

(v) To develop a composite index to compare the overall performance of the different banks by combining the different dimensions of the E-banking services.

1.6 Hypothesis of the study

To attain the objectives of the study the following hypotheses are proposed. The hypotheses will act as a roadmap to the present researcher to attain the objectives.

(i) Socio-economic factors have an impact in adopting E-banking delivery channels among salaried employees.

(ii) Customers using E-banking delivery channel services are more loyal to the same compared to those customers who are not using those channels.

(iii) There is an association between the level of satisfaction and the 'word-of-mouth' of the target population.

The rest of the objectives will be attained through computation as described in the methodology.

1.7 Methodology

For defining a methodology for the said project the entire job is divided into the following sub-heads.

1.7.1 Type of Research: Type of research is descriptive in nature.

1.7.2 Area of study: The sample will be collected from salaried employees using E-banking delivery channels from Southern Assam comprising of three districts Cachar, Karimganj and Hailakandi specifically known as Barak Valley.

1.7.3 List of banks to be considered:

Based on RBI data for October, 2013, the following are the ranks of banks as per bank wise data of volumes in MOB/NEFT/RTGS transactions (banks are selected on the basis of their presence in Barak Valley). [2]

[2] https://www.rbi.org.in/scripts/NEFTView.aspx

Table 1.1 List of banks to be considered in the study

Serial no	Bank Name	No of MOB/NEFT/RTGS transactions	Status
1	State Bank of India	13410983	Active
2	HDFC Bank ltd.	7649492	Active
3	ICICI Bank ltd	6176714	Active
4	AXIS Bank ltd	5537647	Active
5	Punjab National Bank	1221868	Active
6	Bank of BARODA	1005052	Active
7	UNION Bank of India	995418	Active
8	CANARA Bank	761672	Active
9	Indusind Bank ltd	658604	Active
10	CORPORATION Bank	565861	Cancelled
11	Oriental Bank of Commerce	465104	Cancelled
12	Indian Bank	460098	Cancelled
13	UCO bank	288684	Active
14	United Bank of India	272296	Cancelled
15	VIJAYA Bank	220036	Active

The Corporation bank, Oriental bank of Commerce and Indian Bank has been cancelled since they either have no salary savings accounts or very negligible number of salary account.

United bank of India has been cancelled since they did not provide data after repeated requests and visits.

1.7.4 Defining the population

One important and foremost task of the researcher is to define the subjects on whom the study is to be performed. According to the objective, we are concerned with those subjects who use electronic banking delivery channels and at the same time are salaried employees. Thus, to start with, the population comprises of firstly salaried employees and secondly they are the bank customers who specifically use electronic banking services of their respective banks in three districts of Barak Valley, i.e. Cachar, Karimganj and Hailakandi.

Since exactly the size of the population is undeterminable due to banks inability to provide the number of customers fulfilling the criteria of the population (i.e. Total customers who are salaried employees at the same time E-banking users). Thus we had to depend on the total number of customers (savings account) of the respective banks under consideration for the study. Here, total number of customers (savings account) is the superset of the customers who are salaried employees at the same time E-banking users.

1.7.5 Sampling Unit

The entire study of finding out the attitude of salaried employee section of society towards electronic banking delivery channels concentrates around five objectives. Out of the five objectives, Objective 2, 3, 4, and 5 has same sampling unit and objective 1 has a different sampling unit.

Sampling Unit for objective 1: Since the study for objective 1 is concerned for finding out the socio economic impact in adoption of E-banking. Hence, we are to consider both E-banking adopters and non-adopters. Thus the sampling unit shall be any individual who is a salaried employee and at the same time a customer of his or her respective banks irrespective of use of electronic banking.

Sampling Unit for Objective 2, 3, 4 and 5: Since the study of these objectives is concerned on only the adopters of E-banking, hence we are to consider only the E-banking users. Thus the sampling unit for objective 2, 3, 4 and5 shall be any individual who is a salaried employee and secondly he or she is the bank customer who specifically uses electronic banking services of his or her respective bank in Barak Valley.

1.7.6 Sample size and Sample selection process

1.7.6.1 Sample Size

Sample size for Objective 2, 3, 4 and 5:

For Objective 2, 3, 4 and 5 the approximate sample size can be calculated using the formula

$$n = \frac{1}{e^2}$$ where e is the proportion of error present in the study.

n is the Final approximate sample size

An error of 5 percent will require a sample of approximately 400 units.

The sample size to be collected is determined by the formula given by (Malhotra & Dash, 2009). According to (Malhotra & Dash, 2009), the statistically determined sample size requires adjustments. The sample size determined statistically represents the final sample size that must be achieved in order to ensure that the parameters are estimated with desired degree of precision and given level of confidence. In surveys this represents the number of interviews that must be completed. In order to achieve this final sample size, a much greater number of potential respondents have to be collected. In other words the initial sample size has to be much larger than the final sample size because the incidence rates and completion rates are less than 100 percent.

The formula as given by (Malhotra & Dash, 2009) is

$$\text{Initial Sample size} = \frac{\text{Final Sample size}}{\text{Incidence rate} \times \text{Completion rate}}$$

Here, incidence rate is defined as the rate of occurrence of persons eligible to participate in the study expressed as percentage.

Completion rate is defined as the percentage of qualified respondents who complete the interview. This takes into account the anticipated refusals by people who qualify.

In the current study after conducting the pilot survey, the incidence rate was found to be 48 percent and completion rate was found to be 80 percent.

Thus according to the formula with final sample size n = 400, estimated initial sample size is calculated to be 1041.666 i.e. 1042.

Here initial sample size (1042) is estimated total number of persons to be approached for the survey to get the final sample size (400)

Thus the initial sample size (1042) contains three types of respondents

Type 1 Respondents: Those respondents who are sample units of objective 2, 3, 4 and 5, i.e. the salaried employees and at the same time E-banking users, who are eligible to participate in the study.

Type 2 Respondents: Those respondents who are not eligible to participate in the study for Objective 2, 3, 4 and 5 {Because they are either (a) salaried employees and E-banking non adopters or (b) E-banking users but not salaried employees (c) Neither salaried employees nor E-banking Users}

Type 3 respondents: Those respondents who are qualified to be respondents but do not complete the interview taking into account the anticipated refusals.

Thus all these three types of respondents need to be approached to get final sample size of 400 needed for objective 2, 3, 4 and5.

* It is to be noted that Type 2 (a) respondents who are approached are not eligible to participate in the study for objective 2, 3, 4 and5 but these respondents are eligible to participate for the study of objective 1.

Sample Size for objective 1:

For objective 1 also we depend on the formula

$$n = \frac{1}{e^2}$$

where e is the proportion of error present in the study.

n is the Final approximate sample size

An error of 5 percent will require a sample of approximately 400 units.

Out of these 400 units, first 200 units are the salaried employees and E-banking adopters and second 200 are the salaried employees and E-banking non adopters. The first 200 units have come from the sample collected for objective 2, 3, 4 and 5 i.e. respondents Type 1 mentioned earlier and the second 200 have come from respondent Type 2(a) mentioned earlier .

1.7.6.2 Process of selecting the sample:

Post Stratified random sampling has been used to collect the sample from each bank under consideration. The criterion of stratification was banks. The number of customers selected from the banks was through proportional allocation i.e. the sample from each bank depended on the proportion they contribute in the total population. So that the sum total of individual sample taken from each bank is equal to the total sample size.

The following table represents the sample size to be collected from each bank under consideration.

Table 1.2 Bank wise sample size to be collected

Sl. no.	**Name of bank**	**Population as on 31st March, 2014**	**Sample to be collected out of 400**
1	STATE BANK OF INDIA	399206	246
2	ICICI BANK LTD	7800	5
3	AXIS BANK LTD	20000	12
4	HDFC BANK LTD.	7374	5
5	UNION BANK OF INDIA	67239	41
6	BANK OF BARODA	16429	10
7	CANARA BANK	25688	16
8	VIJAYA BANK	14500	9
9	UCO BANK	54593	34
10	INDUSIND BANK LTD	3000	2
11	PUNJAB NATIONAL BANK	32843	20
	Total	**648672**	**400**

1.7.7 Data Collection Method

Both primary and secondary data has been collected .The primary data is collected through a systematic schedule.

1.7.8 Data Analysis Method

Data Analysis involved calculation of different descriptive statistics and use of Likert scale. Hypothesis testing is done using ANOVA, factor analysis, different types of regression analysis like binomial logistic regression, simple and multiple regressions, structural equation modeling and other appropriate statistical/quantitative tools to meet the objectives.

1.7.9 Reliability tests

Cronbach alpha reliability tests were used to measure the reliability of the adopted questionnaire and it has been found that the value of Cronbach falls above the acceptable range of 0.6 as given by (George and Mallery ,2003) and cited by (Jan, Abdullah, & Shafiq, 2013) (Das, 2013) (Azad & Esmaeili, 2012).

1.8 Scope and Limitations of the Study

The study will through a light upon the nature of salaried employees of the mass population towards the adoption of E-banking delivery channels. Finding relationship between level of satisfaction on E-delivery channel and word of mouth may help the banks to analyze the impact of customer enabling electronic transaction and spreading word of mouth for similar transaction among friends, colleagues and relatives. Banking organizations looking for sustainable business and competitive edge will always try to retain and increase number of customers and since E-banking is a way of retaining and increasing customers through innovation diffusion hence usability of the E-banking delivery channels are a major concern. The study will also help to find out the role of E-banking delivery channels in developing customer loyalty. A banks performance index can be prepared on the basis of performance of the E-delivery channels.

The study has its own restrictions and limitations. The limitations are results of two distinct constraints that are difficult to overcome. The first one is related to the generalization of the outcome of the study. The generalizations drawn on the basis of objective may not hold good at a different cultural setup, geographical region, race etc. Thus, the finding of the study to certain extent may be true only in the geographical area on which it is subjected. The second issue is the sample size. As time and cost hurdles are difficult to overcome so the current researcher is debarred from taking a bigger sample size that could have diminished the standard error of the results obtained. Since the study is based on survey on the attitude of salaried employees so it may invite some amount of biasness. Such biasness may be un-intentional and accordingly get included in the study either due to respondent, investigator or both. However, proper care would be taken to eliminate such situation to the extent possible. Both the sampling error and non-sampling error have their role to play in the survey and are limitations to any such study.

1.9 Chapterization Scheme

The chapterization of the project will be as below.

Chapter 1	:	Introduction and Statement of the Problem
Chapter II	:	The socio economic impact in adoption of E- banking among salaried employees
Chapter III	:	E-banking delivery channels in developing loyalty
Chapter IV	:	Impact of satisfaction on word- of -mouth in E-banking delivery channels
Chapter V	:	The performance of the E-banking services of different banks
Chapter VI	:	Composite index development to compare banks in terms of E-banking services
Chapter VII	:	Findings, conclusions and future area for research