SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

Chapter 5

SUMMARY, FINDINGS, CONCLUSION AND SUGGESTIONS

5.1. SUMMARY

There has been a sea change across the banking and financial sector in India in the last ten years, the major credit for which is attributable to the Information Processing and Communication Technology, commonly known as IT. It has changed the way in which banking business is being done today. Bankers are now convinced that to create and retain a customer is the key to succeed in this competitive market. Therefore banks re-focus on their core asset the customer. IT has changed the entire scenario of customer-bank relationship, adding growth to bank business and convenience to customers. Technology has already helped in providing various delivery channels to customers. Now the customers no longer have to go inside the bank for their regular banking needs. The options are many to go to the nearest ATM or to the nearest internet enabled computer for access to their account or they can use their own mobile handsets for doing banking transactions. Computerization has reduced processing time in banking transactions. A cheque now deposited gets cleared quickly.

Significance of the Study

Kerala has a long history of strong banking habits. Most of the Keralites have bank accounts and are very active in banking. There has been a drastic change in the way banking services are delivered to the customers. The infusion of technology in to banking has changed the entire picture of delivering services to the customers. Customers no
longer have to wait for getting their services inside the bank branch. Banking services will reach the customers whenever and wherever they want. It is highly imperative to know how far technology has influenced the banking habits of the people of Kerala. This study lays emphasis on the fast changing banking habits of the people of Kerala. For the banking sector also, it is very essential to know whether there is a wide gap between adopters and non adopters of e-banking delivery channels introduced by them.

Scope of the study

The scope of the study is confined to an in-depth analysis of the banking habits of the selected household bank customers belonging to three districts; Kozhikode, Ernakulum and Pathanamthitta of Kerala state. The present study started with an analysis of the general banking habits of the respondents. Later, it focused its attention on the electronic banking habits of the respondents. Even though a variety of multiple e-banking delivery channels are operating in the state, the scope of the study is confined to four popular e-banking delivery channels namely; ATMs, internet banking, mobile banking and credit card.

Research Problem

During the last decade, technology has been dramatically transforming the banking activities in the state. It extends greater convenience and multiple options for customers. But some electronic banking services are still in their infancy while others are more mature. It seems that only a small subset of consumers has adopted certain e-banking channels. Non-adopters still comprise the majority of the bank customers. Awareness of e-banking delivery channels is an essential pre-requisite for the adoption of the same. So there is a need to identify the awareness, the reasons for the adoption, non-adoption and rejection of these bank delivery channels. Again it is necessary to identify whether there is a wide gap between users and non-users of various e-banking channels. There are a number of factors which influence the customer usage frequency of bank delivery channels such as demographic and psychographic variables. There is a need to investigate which factors are more influential in taking the decision whether to adopt or not to adopt different banking channels. After having identified the level of adoption and
usage of e-banking channels, it is essential to identify whether the users are satisfied with these delivery channels. It is also necessary to explore the difficulties faced by the users of e-banking delivery channels.

**Major Objectives**

This study mainly aims to identify the bank customer’s level of awareness with regard to the four major e-banking delivery channels such as ATMs, internet banking, mobile banking and credit card. The next objective is to identify how far awareness leads to the adoption of the same. Examining the influence of demographic and perceptual factors on the adoption of these delivery channels is the next objective. It also analyses the user’s different experiences and their level of satisfaction in using these e-banking delivery channels.

**Major Hypotheses**

After setting the objectives, hypothesis to be tested are listed out. Major hypothesis are; bank customers in Kerala has a reasonable degree of awareness about various technology driven banking channels and the level of awareness is independent of type of bank which they belong to, their age, education and income and bank customers in Kerala has a reasonable degree of adoption of various technology driven banking channels and the level of adoption is independent of type of bank which they belong to, their age, education and income.

**Variables Used**

Variables used for the study are; the banks associated with, age, education and income of the informants, and further eleven perceptual variables such as convenience, accessibility, ease of use, usefulness, perceived risk, perceived need, personal contact, cost effectiveness, reliability, knowledge and informativeness.

**Methodology**

This study is designed as a descriptive one. Data used for this study is derived from primary and secondary sources. Secondary data is collected from various reports of
RBI, SBI, IBA, economic review of Planning Commission, research papers in various national and international journals and e-journals, articles etc. Primary data was collected by way of conducting sample survey among the customers of selected banks operating in Kerala state. A public opinion was gathered through a detailed survey, using structured and pre-tested questionnaire. For pre-testing the questionnaire, a pilot study was conducted among 35 selected bank customers of Calicut district. A reliability analysis was conducted on the 84 scaled statements used for pilot study in order to check the internal consistency of these statements and found that the collected data was highly reliable. The size of the sample is taken as 360 which was determined by way of applying a scientific formula.

**Sample Design**

Multistage sampling technique was adopted for collecting the data wherein the first stage, Kerala state is divided into three regions namely, northern, central and southern. From the northern region which consists of seven districts, Kozhikode district was selected randomly, from central region it is Ernakulam district and from southern region it is Pathanamthitta district. In the next stage, SBI, Federal bank and ICICI were selected from Kozhikode district as representatives of nationalized banks, Kerela based private banks and new generation banks. From Ernakulam district, it is Canara bank, SIB and Axis banks respectively and from Pathanthitta district, it is Syndicate bank, CSB and HDFC banks respectively. In the last stage, 20 customers each were selected conveniently from two bank branches of each bank.

**Scaling Technique Used**

Most of the information required for the study is qualitative in nature. A Five point Likert continuous scaling technique was used for quantifying the various qualitative aspects of the study such as the degree of awareness, experience of use, level of satisfaction of customers, customer’s perception of the selected electronic banking delivery channels provided by the selected banks in Kerala. The collected primary data has been classified on the basis of the type of the bank which the respondents belong to, age, education and annual income level of the informants.
Measures and Tools of Analysis

For the measurement and analysis of the information gathered, appropriate mathematical and statistical techniques have been used. The Classified primary data has been summarized by using simple mathematical techniques like mean and standard deviation, percentages and averages. To test the statistical difference between mean values, chi-square test, t-test and F-test were used. A factor analysis was conducted to identify the factors influencing the adoption and usage of ATMs and internet banking. Regression analysis was also applied to identify how these factors affect the adoption of ATMs and internet banking.

Time Period of the Study

This study covered a period of five years from 2007-08 to 2011-2012. Six months time was taken for collecting the primary data.

Major Limitations

Since it is a descriptive study based on the qualitative information collected from the respondents, scaling techniques have been used for converting the information into quantitative data. Hence the limitations of scaling techniques also affected the study. As the respondents supplied their information using ‘Recall Method’, some recall errors might have affected the study. Only 18 bank branches operating in the state and only four e-banking delivery channels were selected for the study due to time and cost constraints. However the researcher has taken serious efforts to reduce the effect of these limitations.

Literature Review

A detailed review of relevant literature for the study is undertaken by the researcher. All the available literature in connection with the progress and development of e-banking delivery channels are reviewed, and the major findings are described. Most of the research papers related to e-banking published in international e-journals were reviewed for this particular study. The relevant literature regarding awareness, adoption,
factors influencing the adoption of ATMs, Internet banking, Credit card and Mobile banking are reviewed. It further deals with the review of the available literature in connection with the user's experience and satisfaction of e-banking delivery channels.

**Literature Review in the Development of E-Banking Delivery Channels**

Here, the researcher reviewed all the available literature in connection with how different e-banking delivery channels were developed through the passage of time. It is ATMs which were developed as the first self service machine for conducting banking transactions outside the bank premises followed by phone banking, PC banking, internet banking and finally mobile banking. But it is found that the literature is not sufficient to give a complete picture of the development of all the e-banking delivery channels across the world.

**Relevant Literature Related to the Awareness and Adoption of E-Banking**

Here, relevant literature in connection with the awareness and adoption of technology driven bank delivery channels were reviewed. This gives a broad idea about the importance of having good awareness with regard to different e-banking channels for its adoption and active usage. It also discussed the common factors which affect the adoption of e-banking channels such as convenience, ease of use, usefulness, security aspect, perceived risk, cost factor, personal contact with the bank employees, speed and accuracy, reliability and confidentiality etc.

**Literature Review of Factors Influencing the Adoption of ATMs**

A detailed review of all the available literature describing the important demographic, economic, psychographic and perceptual factors influencing the adoption of ATMs, internet banking and credit card is undertaken. The key factors that has a positive influence on the adoption of ATMs are convenience, accessibility, trialability, observability, ease of use, usefulness, speed of operations etc whereas perceived risk, complexity, lack of knowledge and fear of safety and confidentiality are the major factors that discourage the use of ATMs.
Literature Review of Factors Influencing the Adoption of Internet Banking

For adoption of internet banking, major positive factors are convenience, easiness, user-friendly, user involvement, accuracy, time saving, 24 hour availability of service etc whereas lack of access to computers and internet, lack of knowledge, preference to personal contact with the bank staff, security concerns, complexity, reluctance to change etc; act as major hindrances to the adoption of the same. Likewise, available literature in connection with the adoption of credit card is also discussed.

From this review, the implications for the present study are drawn.

Models Discussed

In this review, two models; namely Diffusion Innovation Model by Rogers (1961) and Technology Acceptance Model by Davis (1989) are studied and all the variables used in these models are also discussed. Rogers in his Diffusion Innovation theory, identified five characteristics or attributes of innovations that affect the rate at which innovations are adopted; their relative advantage, compatibility, complexity, divisibility (trialability), and communicability (observability). Additional characteristics were later adopted; perceived risk by Ostlund (1974) and financial and social cost by Zeithaml (1981). In TAM, Davis identifies the perceived usefulness and the perceived ease of use of a technology as determining user behaviour. He found that perceived usefulness has a stronger influence on usage than does ease of use. Davis’s study shows that users are driven to adopt a technology primarily because of the functions it provides them, and secondarily because of the easiness of benefiting from those functions. Variables chosen for the present study are based on some of the variables of these models such as relative advantage, compatibility, complexity, perceived risk, cost effectiveness, ease of use and usefulness. Further in this review, a number of factors are seemed to have an influence on the adoption of the selected e-banking delivery channels. These factors can be bifurcated into two, demographic and perceptual factors. In the present study also, these two groups of factors are taken into account for checking their influence on the adoption of e-banking delivery channels.
Research Gap

From the detailed literature review, it is revealed that a number of studies were conducted in the area of awareness and adoption of e-banking delivery channels all over the world. But very few studies have been conducted in India. Coming to Kerala, a detailed study in this respect has not been initiated. Kerala state is declared as the first total bank literacy state in India. Again, Keralites are considered to be more technosavvy. In this context, it is highly imperative to have an in depth study regarding the banking habits especially the electronic banking habits of the people of Kerala.

Sample Profile

A sample profile of the 360 respondents is described in detail. A profile of the respondents based on the type of bank, geographical area, gender, age, education, occupation, and annual income are presented to get a broad idea about the socio-economic and demographic characteristics of the sample population. 61 percent of the respondents are male people indicating that they are more active in banking as compared to their counter parts. Nearly 70 percent of the respondents are below 45 years of age and about 80 percent of them have at least graduation. Further, people belong to high level occupation are actively involved in this study as compared to their counter parts.

Banking Habits of the Respondents

Since it is very essential to identify the banking habit of the respondents, it is analyzed by way of checking their association with their respective banks and their frequency of branch visit. Important reasons for their bank visit and the major factors affecting the choice of their banks are also assessed to better understand the respondent’s banking habits. Further, to gain deeper insight into the study, four important variables are selected such as type of bank, age, education and income and analysis is done in different aspects.
Period of Association with the Banker

Period of association with a banker is an indication of loyalty to the institution. Longer is the period of association; higher is the loyalty and vice versa. For examining this, respondents are asked to express how long they have been taking the service of the present banker. Statistical analysis is done by way of finding the mean and standard deviation of the collected data. It is revealed that most of the customers have close association with their bank. In order to get a clear insight in to the issue, variable wise analysis is also done.

Frequency of Visit of Bank Branch

Respondents are also asked to give information about the frequency of visiting their bank branch which show that the average frequency of visit by customers is once in a month. This highlights the fact that most of the banks have a strong group of loyal customers. Customers are more interested in branch banking in spite of all the technological advances and entry of non banking entities. They consider bank branches are significant growth engines and the best place to get personalized advice and attention and to conduct complex banking activities.

Reasons for Bank Visit

After having analyzed the period of association with the bank and the frequency of bank visit, the various reasons for the customer’s bank visit are analyzed. There are many reasons for customer’s bank visit such as to deposit cash / cheque, to withdraw cash, to transfer money, for taking demand draft, to pay bills, to take loans, to pay interest/repay loans and to make enquiries/complaints. It is very essential for the researcher to know the major reasons for the customers bank visit. The assessment of the various reasons for bank visit reveals that majority of the customers visit their bank branches for making deposits. It is also identified that many still depend on their bank for withdrawal of money. This highlights the importance of taking emergent action to persuade the bank customers to depend on ATMs for withdrawals. Again it is very much essential that bank authorities should make necessary arrangements for depositing money through ATMs.
Key Factors in Bank Selection

The researcher also made an attempt to identify the key factors that account for the customer's selection of their bank. For the purpose of knowing this eight factors were identified such as 'convenience', 'favorable interest rates on loans/deposits', 'brand image', 'bank has an ATM near your home/working place', 'bank provides technology enabled products and services', 'customer friendly environment', 'advertisements' and 'influence of friends and relatives'. The respondents are asked to distribute in 100 points in the order of importance. An assessment of the factors that account for customer's choice of selection of bank clearly revealed that most of the customers prefer those banks which are at convenient locations and deliver the needed services to the customer's convenience. They also ensure that the bank have ATMs at convenient location near their home, workplace or easily accessible locations while selecting their bank.

Table 5.1. Result of Hypotheses Testing

<table>
<thead>
<tr>
<th>No.</th>
<th>Hypotheses Tested</th>
<th>Tools Used</th>
<th>Results of Hypotheses Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Bank customers in Kerala has a reasonable degree of awareness about various technology driven banking channels and the level of awareness is independent of type of bank which they maintain account, their age, education and income.</td>
<td>Arithmetic mean, Standard Deviation, F-test</td>
<td>Respondents have high degree of awareness in case of ATMs and credit card whereas it is low in case of internet banking and mobile banking. Respondent's level of awareness of selected e-banking delivery channels is clearly dependent on the four variables used in the study such as type of bank which the customers maintain account, age, education and income. Hence, H1 is rejected.</td>
</tr>
<tr>
<td>H2</td>
<td>Bank customers in Kerala has adopted various technology driven banking channels at a reasonable rate and the level of adoption is independent of type of bank which they maintain account, their age, education and income.</td>
<td>Chi-Square</td>
<td>Rate of adoption of ATMs is very high whereas it is low in case of all other e-banking channels. Further, adoption of ATMs and internet banking is clearly dependent on the type of bank, age, education and income. Adoption of credit card is independent of age and education whereas mobile banking adoption is independent of all variables except the type of bank which the customers maintain their accounts.</td>
</tr>
<tr>
<td>No.</td>
<td>Hypotheses Tested</td>
<td>Tools Used</td>
<td>Results of Hypotheses Testing</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>H3</td>
<td>The period of association with multiple bank delivery channels is independent of the type of bank, age, education and income.</td>
<td>One-way ANOVA</td>
<td>Period of association with the selected e-banking channels is independent of the type of bank which the customers maintain their accounts. Again, age, education and income of the users have no influence on their period of association with the selected e-banking channels except ATMs. Hence H3 is accepted.</td>
</tr>
<tr>
<td>H4</td>
<td>The usage frequency of multiple bank delivery channels is independent of the type of bank, age, education and income.</td>
<td>One way ANOVA</td>
<td>Average frequency of usage of all the multiple bank delivery channels is independent of the variable 'age'. Average frequency of using ATMs is dependent on the variables, type of bank and income, whereas that of mobile banking is dependent on education and credit card is dependent on income.</td>
</tr>
<tr>
<td>H5</td>
<td>There is no difference between users' and non users' perception of various technology driven banking channels.</td>
<td>t-test</td>
<td>E-banking users’ general perception towards technology used in banking as well as their perception towards the quality of various technology driven banking channels are significantly different from that of non users’. Hence H5 is rejected.</td>
</tr>
<tr>
<td>H6</td>
<td>There is no association between perceptual factors and the adoption of multiple bank delivery channels.</td>
<td>Factor Analysis, Regression Analysis</td>
<td>There is a close association between perceptual factors and the adoption of multiple bank delivery channels. Hence H6 is rejected.</td>
</tr>
<tr>
<td>H7</td>
<td>Users’ different experiences regarding e-banking delivery channels are independent of the type of bank which they maintain account, their age, education and income.</td>
<td>One-way ANOVA</td>
<td>Users’ different experiences while using the selected e-banking delivery channels are independent of the type of bank which they maintain account, age, education and income. Hence H7 is accepted.</td>
</tr>
<tr>
<td>H8</td>
<td>Users have a reasonable degree of satisfaction of branch banking and various e-banking delivery channels and the level of satisfaction is independent of type of bank, age, education and income.</td>
<td>Arithmetic mean, Standard Deviation, One way ANOVA</td>
<td>Users are reasonably satisfied with all e-banking channels except credit card. In the case of credit card user’s overall level of satisfaction is low. Further, user's level of satisfaction in respect of all e-banking channels is independent of the type of bank which customers maintain account, age, education and income. Hence H8 is accepted.</td>
</tr>
</tbody>
</table>
5.2. FINDINGS

Major findings with regard to the banking habits of the respondents are listed below:

5.2.1. Period of Association with the Bank and Frequency of Visit

The study reveals that majority of the customers are taking the service of their respective banks for nearly seven years. They visit their bank branch at least once in a month. Bank wise classification gives the idea that even though new generation bank customers have six years of experience with their banks, they are more active in branch banking as compared to nationalized and Kerala based bank customers. The result of age wise study shows that the older groups have been using the services of their respective banks for the last ten years followed by elder group with seven years and youngsters with four years. However, it is revealed that even though younger groups have less experience with their banks as compared to older groups, they are more active users of banking than their counterparts. Education wise study reveals that professionals and graduates have six years of experience with their banks, for post graduates it is nearly eight years, for SSLC group it is seven years and for Pre degree it is only five years. Regarding frequency of bank visit, all education groups have more or less similar habit of visiting their bank branch at least once in a month. In the case of income, high income groups have comparatively long years of experience in banking as compared to low income groups. However it is clear that even though very high income group has comparatively long years of experience in banking, they are not much active in dealing with their banks.

5.2.2. Reasons for Bank Visit

Findings related to the reasons for the customer's bank visit reveal that the most important reason is to deposit cash/cheque followed by for taking demand draft and for withdrawing cash. Overall this gives the impression that even though ATMs are very prevalent, many customers still approach bank branches for withdrawing cash. Results of the bank wise classification clearly show that all the three groups of bank customers give prime importance to depositing cash, but nationalized bank customers give second
importance to withdrawal of cash, KSB customers give third importance to this factor. However, new generation bank customers give least importance to this factor implying that they heavily use other banking channels for meeting this purpose. Results of all other studies based on age, education and income give the idea that depositing cash is the most important reason for their bank visit. However in the case of cash withdrawal different customer groups have different habits. Older groups give second importance to this factor as compared to youngsters and middle aged. It is also understandable that dependence on bank branches for withdrawal of cash reduces as we go up from low level of education to high level of education. Similarly, low income groups still depending on bank branches for withdrawal of cash whereas this tendency is less in the case of average and high income groups. This indicates that youngsters, people having at least graduation and above average income groups are increasingly depending on other banking delivery channels, especially ATMs, for taking their money.

5.2.3. Factors Affecting Customers' Choice of Their Banks

Major findings related to the key factors that account for customers’ choice of retail banks reveal that ‘convenience’ is the most important factor which influences the respondents while selecting their bank. The next important influencing factor is ‘the bank has an ATM near to home or working place’ followed by ‘customer friendly environment in the bank’ as the third factor and ‘favorable interest rates on loans/deposits’ as the fourth factor. The least important factor which influences the selection of a bank is ‘advertisements’. The results of all the selected variable wise classifications also support the above findings. This clearly proves that customers prefer those banks which are at convenient location and deliver the needed services to the customer’s convenience. They also ensure that the bank have ATMs at convenient location near their home, workplace or easily accessible locations while selecting their bank.

5.2.4. Awareness of E-Banking Delivery Channels

Key findings related to the awareness of electronic bank delivery channels clearly indicate that all customers very well aware that their respective banks provide the facility of ATMs, different types of transactions done through ATMs and the mechanism of using
ATMs. As far as internet banking is concerned, majority of the customers aware that their respective banks provide the facility of internet banking, but regarding internet banking transactions and how to use internet banking, their level of awareness is low. In the case of availability of mobile banking and transactions done through this facility, majority of the respondents have limited awareness. Again most of the respondents are aware of the availability of debit card and credit card.

5.2.4.1. Bank Wise Awareness

Bank wise analysis reveals that with respect to ATMs, all three groups of bank customers have high level of awareness. But in the case of internet banking and mobile banking, nationalized bank customer’s level of awareness is low. Kerala based customers are in a better position. New generation bank customers have good awareness regarding all aspects of e-banking products and services as compared to the other two groups of bank customers. Statistical analysis also supports these findings.

5.2.4.2. Age Wise Awareness

Age wise classification shows that all respondents irrespective of their age group have good awareness regarding ATM availability, ATM transactions and how to use ATMs. But in the case of awareness of all other e-banking products and services it is very clear that youngsters and middle aged are more aware as compared to other age groups. Level of awareness of elder and older groups are very low in the case of internet banking transactions, how to use internet banking, availability of mobile banking and mobile banking transactions. In the case of debit card and credit card, all age groups are aware of but the awareness level of elder and older groups is slightly less as compared to the younger categories. Statistical analysis also supports these findings.

5.2.4.3. Education Wise Awareness

Education wise analysis gives the information that all respondents irrespective of their level of education are well aware of availability of ATMs, ATM transactions and the mechanism of using them. But in the case of all other e-banking services, level of awareness declines as we go down from high level of education to low level of education.
It can be seen that for SSLC group level of awareness in the case of availability of internet banking and mobile banking is very low as compared to their counterparts. Regarding transactions done through internet banking and how to use it, except professionals, all other group’s level of awareness is low. It is the same with that of mobile banking transactions also. In the case of debit cards and credit cards majority of the respondents are well aware of but the level of awareness goes on declining from high level of education to low level of education. Statistical analysis also support that highly educated groups have high awareness as compared to their counterparts.

5.2.4.4. Income Wise Awareness

Income wise analysis also reveal that in the case of availability of ATMs, and ATM transactions, all groups irrespective of their income status are well aware, but in the case of mechanism of using ATMs, awareness level of very low income group is slightly less as compared to other income categories. All income groups except very low income group are aware of the facility of internet banking. But in the case of internet banking transactions and how to use internet banking, level of awareness of all income groups except high income group, is low. It is revealed that most of the low income categories are unaware of these transactions. Further, majority of the respondents from all income groups, except the very low income category, are aware that their banks provide the facility of mobile banking whereas regarding mobile banking transactions, many of them are unaware except the high income groups. In the case of debit card and credit card, awareness level of high income categories is high and it goes on reducing as we go to the lower levels of income groups. Overall it is understandable that the awareness of all e-banking delivery channels reduces as we go down from higher income group to lower income group. Statistical analysis also supports these findings.

5.2.5. Adoption of E-Banking Delivery Channels

The information about the level of adoption of e-banking products and services reveals that adoption of ATM was highest followed by internet banking, credit card and mobile banking. Among the 360 respondents, rate of adoption in the case of ATMs is 90 percent, for internet banking, it is 26 percent, for mobile banking, only 13 percent and
credit cards it is 18 percent. Further it is found that usage of these services is different from adoption. In the case of ATMs, only two adopters have dropped using it. In the case of internet banking out of 95 adopters, 91 are using and in the case of mobile banking, three adopters have dropped using these service. Regarding credit card, out of the 64 adopters, 11 persons are not using this. Droppage rate is high in the case of credit cards followed by mobile banking, internet banking and ATMs.

5.2.6. Usage of E-Banking Delivery Channels

It is found that majority of ATM users have been using it for more than three years. In the case of credit card, average period is three years whereas in the case of internet banking it is less than two years. Mobile banking services are used by the users for the last two years. Regarding frequency of use it is found that majority of ATM users are using it for at least twice in a month. For credit card, it is once in a month which is low as compared to the frequency of usage of other services. Majority of Internet banking users are using it for at least twice in a month whereas in the case of mobile banking, average frequency of usage is near to once in a week. Hence it is revealed that even though rate of adoption of mobile banking is low as compared to other services, the intensity of its use is relatively high. Overall, the implication is that average frequency of usage of mobile banking is the highest followed by ATMs, internet banking and credit cards.

5.2.7. Transactions Performed Through E-Banking Delivery Channels

Main findings related to the transactions performed through e-banking delivery channels are that all are using ATMs for cash withdrawal, majority makes balance enquiry. Only six percent make deposit of cash/cheque, 33 percent takes mini statements and eight percent makes bill payments. In the case of internet banking, account balance inquiry is the most commonly used banking services followed by air/rail ticket booking, fund transfer and online shopping. For mobile banking, 95 percent of the users make balance enquiry and many of them takes information on last three transactions in their bank account.
5.2.8. Bank Wise Classification of Adoption of E-Banking Delivery Channels

Bank wise classification of adoption of e-banking products and services revealed that new generation bank customers are ahead of other two groups of bank customers in adoption of all the four e-banking delivery channels. KBS bank customers are in a better position as compared to nationalized bank customers. Results of the statistical analysis also support that adoption of the selected e-banking products and services is clearly dependent on the types of banks which the users belong to.

Nationalized bank customers have been using ATMs for three years; KBS bank customers for more than three years. Majority of new generation bank customers have been using it for nearly four years. In the case of credit cards, for nationalized bank customers it is more than five years but in the case of Kerala based and new generation bank customers, it is nearly three years. Again new generation bank customers have been using internet banking for two years and mobile banking for more than two years. Internet banking and mobile banking users of KBS banks have been using these for more than one year. Nationalized bank customer's period of being the user of internet banking and mobile banking is low, one year in the case of internet banking and less than one year in the case of mobile banking. Results of the statistical analysis reveal that these differences found among the three groups of bank customers are not significant.

Further it is found that regarding ATMs, nationalized and Kerala based customer's using ATMs twice in a month. But new generation bank customer's frequency of usage of ATM is much higher; most of them are using it every week. In the case of credit card, nationalized bank customers’ and new generation bank customers’ usage frequency is once in a month. For Kerala based scheduled banks customers, it is twice in a month. Majority of the three groups of customers are using internet banking twice in a month. Majority of mobile banking users belonging to the three groups of banks are using it nearly once in a week. All users irrespective of the bank group which they belong to, do not differ significantly on their frequency of usage of credit card, internet banking and mobile banking.
5.2.8.1. Age Wise Adoption

Findings of the age wise analysis reveal that the demographic variable ‘age’ has significant influence on the adoption of ATMs and internet banking whereas age is found to be independent of the adoption of credit card and mobile banking. Majority of the youngsters have been using ATMs for nearly three years indicating the presence of many respondents in this category who are new to ATMs. The middle aged group is using ATMs for more than three years whereas that of elder group is nearly four years. The older group has been using ATMs for nearly five years. In the case of credit card, the younger groups have been using it for more than three years. Middle aged and elder groups have been using credit card for nearly three years whereas older group is for more than five years. Regarding internet banking, younger group have been using it for nearly two years whereas the same as that of middle aged and elder group is more than one year. Only one person from the older category is using internet banking who has only one year experience of using internet banking. In the case of mobile banking also younger generation has more than two years experience. Middle aged group have been using it for two years. Only two persons from the elder group are now using mobile banking, both have one year experience of using the same. The result of the statistical analysis shows that there is significant difference among the four age groups regarding the average period of using ATMs. But in the case of all other services, credit card, internet banking and mobile banking, the difference is not significant.

It is also found that all users of e-banking products and services are equally active in using the same. In the case of ATMs and internet banking, average frequency of usage is more than twice in a month, for credit cards once in a month, for mobile banking it is once in a week.

5.2.8.2. Education Wise Adoption

It is found that the adoption of ATMs and internet banking is dependent on education. 99 percent of the professionally qualified people have adopted ATMs followed by post graduates with 87%. It also gives the information that 90% of the respondents from the graduation and pre-degree/plus two group have adopted ATMs. But the rate is low in the case of those who have SSLC, 71%.In the case of internet banking
professionals have high rate of adoption with 35%. In the case of all other categories, the rate is low. The factor education has no influence on the adoption of credit cards and mobile banking.

Further findings show that nearly four years is the average period of use of ATMs for the highly qualified group, three years is that of graduates and around two years is for the less educated groups. These differences are also statistically significant. However, in the case of other channels, the different education group’s average period of use is more or less the same. For credit cards, average period of use is more than three years, for internet banking and mobile banking, it is two years.

It is found that regarding frequency of use, different education groups significantly differ only in the case of mobile banking wherein, low education group is not very much active as compared to other education categories.

5.2.8.3. Income Wise Adoption

There is close association between income of the respondents and adoption of ATMs, credit cards and internet banking implying that above average income group’s rate of adoption of these is high as compared to low income categories, but in the case of mobile banking it is not true where income does not have any influence on its adoption. This proves that mobile banking is the cheapest e-banking delivery channel. Again, above average income groups are found to have long years of experience with ATMs as compared to other categories. They are also very active users of ATMs and credit cards as compared to other categories. But in the case of internet banking and mobile banking all are equally active irrespective of their level of income.

5.2.9. ATM Users’ and Non-Users’ Attitude towards Banking Technology

ATM users have positive attitude towards technology used in banking which is fully reflected in their adoption and usage of the same. ATM non users are concerned with the security of the technology enabled banking services. They express their unwillingness to use new methods to conduct banking transactions. They also have the opinion that technology enabled banking services are complicated and highly insecure to use. They admit that they are not very active users of banking services and they are very
much satisfied with the existing mode of banking services. They strongly agree that they do not feel the need to use ATMs. They also have strong negative perception towards ATMs which plays a crucial role in dissuading them from using ATMs. Another important point to be noted here that these two groups strongly agree that bank should provide proper awareness regarding technology enabled banking services.

5.2.10. Attitudinal Differences between Users and Non-Users of ATMs

Users of ATMs feel that location and 24 hour availability of ATMs are very convenient for them and they are very much comfortable with the same. They also experience that ATM operations are very easy for them. Majority of the users can access ATMs whenever they need it, and they do not feel that the queues of the ATM are quite large. They also agree that ATM makes banking services easy for them, it is time saving, accurate and quicker than visiting the bank branch. But majority of the users express concern over the security of ATMs. They also opined that it is not safe to deposit money through ATMs. Finally they strongly agree that ATMs are very essential for their banking. In the case of non users, one of the main reasons for their low average usage value is that they do not have the experience of using ATMs. They feel that the location of ATMs are not very convenient for them and find it difficult to access the same. They also think that going to bank branch is better than using ATMs. They are very much concerned about the security of using ATMs and they opined that it is risky to deposit money through ATMs. Finally, they strongly agree that they do not feel the need to use ATMs. Non users have strong negative perception towards ATMs and this is fully reflected in their action of not using ATMs.

5.2.11. Influence of Perceptual Factors on the Adoption of ATMs

A factor analysis reduced the 13 perceptual statements into four factors corresponding to convenience, perceived risk, speed of operations and accessibility.

The regression analysis suggests that the factors, convenience, speed of operations and accessibility are positively associated with the adoption of ATMs and perceived risk is significantly negatively associated with the adoption of ATMs. These four factors are important in predicting ATM usage in such a way that individuals who perceive ATMs
as convenient, quick to use, time saving and easily accessible are more likely to use ATMs whereas those who perceive ATMs as risky to use, inconvenient, inaccessible and unreliable are unlikely to use the same. These results indicate that the active users of ATMs consider convenience as the most important attribute which greatly influences their adoption and active usage of ATMs. Further it is found that there is a significant relationship between the predictor variables and ATM usage. Perceptual factors are also considered to be strong predictors of ATM usage.

5.2.12. Internet Bank Users' and Non-Users' General Perception of Banking Technology

Findings show that internet bank user’s general perception of technology used in banking is very positive; this is clearly reflected in their approach to internet banking. They are very much interested in using new methods to conduct banking transactions. They disagree that technology enabled services are complicated to use. They also opined that they are very active users of banking and they feel they are not satisfied with branch banking.

Non users of internet banking feel that technology enabled banking services are little bit complicated to use. They also agree that they are not very active in banking and many of them are satisfied with branch banking. They are not against of technology used in banking but they do not support complete replacement of people with machines in discharging banking transactions. This support the fact that most of the non users of internet banking have adopted ATMs, some are using credit cards and mobile banking. Hence we cannot say that they are against of banking technology.

5.2.13. Attitudinal Differences between Users and Non-Users of Internet Banking

Internet users are comfortable with internet banking. As compared to branch banking, for them, internet banking is more convenient since it is quick to use than visiting the bank branch personally. They also feel that internet banking is very much needed for conducting their banking activities. But regarding the security aspect, even users are concerned about the security of internet banking and also the consequences of making mistakes. They also admit that branch banking is safer than internet banking. But
at the same time, they are not ready to stay away from internet banking due to the fear of losing money.

Many of the users of internet banking still like to maintain personal contact with their bank branch and they prefer to deal face to face with banking personnel in doing banking transactions. Regarding the economic aspect of internet banking, users of internet banking do not agree that branch banking is very costly but at the same time they believe that internet banking transactions are cheap compared to branch banking transactions. Further, majority of them strongly agree that charges on various internet banking transactions are unknown. They also opined that they are knowledgeable of all the benefits of internet banking.

On the other hand, non users are not at all interested in internet banking. They strongly feel that branch banking is more convenient than internet banking even though majority of them opined that branch banking is little bit time consuming. It is very important to note that majority of the non users do not have the basic facility, computer/internet connection, to do internet banking. They are also very much concerned about the security of internet banking and consequences of making mistakes. They also agree that they do not use internet banking due to the fear of losing money. They strongly believe that branch banking is much safer than internet banking. Due to these factors, they do not feel the need to use internet banking. Non users of internet banking prefer to go to branch banking and like to deal face to face with banking personnel for doing their banking transactions.

5.2.14. Influence of Perceptual Factors on the Adoption of Internet Banking

The factor analysis condensed the eighteen perceptual statements into four factors corresponding to perceived risk, personal contact, convenience and cost effectiveness.

The regression test done between the factor variables and internet banking usage frequency implied that the four factors together predict 56 percent of the variations in internet banking adoption. This shows that there is a significant relationship between the predictor variables and internet banking usage. Further, the perceptual factors are also considered to be strong predictors of internet banking usage. The regression analysis suggests that perceived risk, personal contact, convenience and cost effectiveness are the
important predictors of internet banking usage. It shows that the factors convenience and cost effectiveness are positively associated with the adoption of internet banking whereas the factors perceived risk and personal contact are negatively associated with the adoption of internet banking. Specifically, a person who perceives internet banking to be more convenient and cost effective is more likely to be an internet banking user. On the other hand, perceived risk and personal contact are negatively affecting the rate of adoption of internet banking in the sense that if customers feel transactions done through internet is more risky; they would not be ready to post financial information over the internet. Similarly, those who prefer the presence of bank staff than machines while making their banking transactions are less likely to adopt internet banking.

5.2.15. Attitudinal Differences between Users and Non-Users of Mobile Banking

Mobile banking users do not have the opinion that it is an unpractical device for banking like non-users. Users support that mobile phone is very convenient for conducting their banking transactions whereas non-users do not believe like that. Further the users very well understand how to use mobile banking whereas non-users reveal that they do not understand sufficiently well to use it. Overall it is understandable that users have strong positive perception towards mobile banking as compared to their counterparts.

5.2.16. Attitudinal Differences between Users and Non-Users of Credit Card

It is found that users and non-users significantly differ in their perception of credit cards. Users are of the opinion that credit card is very useful for them whereas non-users do not believe it. Again, majority of credit card users opined that they prefer credit cards than cash for their shopping whereas non-users feel the other way round. They always prefer cash than credit card for their shopping. This gives the idea that users of credit card have positive perception whereas non-users have negative perception towards credit cards.
5.2.17. Users’ Experience of ATMs

Main findings of the users’ experiences with regard to ATMs reveal that most of the users rarely have the specified problems while using ATMs. Some users occasionally have the problem of waiting in long queues at ATMs. Certain others occasionally insert ATM card incorrectly. Nationalized bank customers occasionally experience the problem of waiting in long queues at ATMs and ‘ATM running out of order’ as compared to Kerala based and new generation bank customers.

It is found that older groups occasionally have the experience of waiting in long queues at ATMs whereas the other two groups rarely experience it. Further the older group opined that ATMs are working slowly but other groups rarely have this experience.

Findings show that with regard to having to wait in long queues at ATMs, graduates and post graduates occasionally have this experience whereas others opined that they rarely experience it. In the case of ATM running out of order, highly educated groups rarely experience it as compared to others. Again, pre-degree and post graduate groups opined that they occasionally have the experience of inserting card incorrectly whereas other groups rarely experience it.

Except very high income group, all others occasionally have the experience of waiting in long queues at ATMs. In the case of all other variables different income groups rarely have these experiences with ATMs.

5.2.18. Users’ Experience of Internet Banking

Users occasionally experience that internet banking is working too slowly, charges on various internet banking transactions are not known and they feel fear of lack of security and confidentiality in transactions. Again it can be found that users rarely have the problem of not getting up-to-date information and internet banking is doing wrong transactions.

Bank wise analysis shows that nationalized bank customers occasionally have the experience of slow working of internet banking and they feel that charges on various internet banking are not known as compared to Kerala based and new generation bank customers. In the case of fear of lack of security and confidentiality in transactions all the three groups of customers occasionally have this experience.
Youngsters and middle aged occasionally feels that internet banking is working too slowly as compared to their counter parts. In the case of doing wrong transactions, all age groups opined that they rarely have this experience. Again, elder group opined that occasionally they have the problem of not getting up-to-date information, whereas others rarely experience this problem. All age groups except the older group complained that charges on various IB transactions are not known, and they are also concerned of the security aspect of internet banking.

SSLC group opined that they frequently have the experience of slow working of internet banking whereas others occasionally experience this problem. Further, all education groups rarely have the experience of their internet bank doing wrong transactions. Pre-degree group frequently have the problem of not getting up-to-date information, graduates and post graduates occasionally experience this whereas this is not a problem for SSLC group and professionals. Again, pre-degree, graduates and professionals complained that they frequently do not know the charges of IB transactions whereas their counter parts occasionally have this experience. With regard to security aspect, we find that fear of security increases as we go down from high level of education to low level of education.

Findings show that very low income, middle income and high income groups occasionally experience slow working of internet banking, whereas low income and very high income groups rarely experience this problem. Again, very high income group opined that they very rarely experience internet banking doing wrong transactions while others rarely have this problem. Further, middle income and high income groups occasionally feel that they are not getting up-to-date information in internet banking, low income and very high income groups rarely experience it whereas very low income group never have this problem. Middle income and high income groups are of the opinion that they occasionally have the problem of not knowing charges on various IB transactions, whereas low income groups rarely experience it. In the case of fear of lack of security, we can find that this experience increases as we go down from very high income to very low income groups.
5.2.19. Users’ Experience of Mobile Banking

Findings show that mobile banking users encounter the specified problems rarely. Thus it is clear that mobile banking users are very comfortable while using the same.

Nationalized bank customers occasionally experience fear of security while using mobile banking whereas in the case of Kerala based and new generation bank customers; they rarely experience ‘fear of security’. Nationalized bank customers also revealed that they occasionally get unclear instructions regarding mobile banking transactions. But Kerala based and New generation bank customers opined that they rarely get unclear instructions. Further all the three groups of bank customers have the opinion that they get needed information of how to use mobile banking. They also express that mobile banking does not have complicated procedures while transacting.

It is understandable that all users regardless of their age, education, occupation and income experience few problems with mobile banking.

5.2.20. Users’ Experience of Credit Cards

Findings show that credit card users frequently experience the problem of ‘Interest charged is very high’, occasionally experience the problems of ‘Danger of losing credit card ‘It involves hidden costs’,’ ‘Unreasonable charges on late payments/outstanding balance’. These results go in parity with the low level of satisfaction disclosed by the respondents especially in the case of interest charged on credit cards.

All users irrespective of the types of banks they belong to, frequently experiences the problem of charging of a very high interest and unreasonable charges on late payments. In the case of the danger of losing credit cards, Kerala based and new generation bank customers occasionally have the experience as compared to nationalized bank customers. Further, Kerala based and new generation bank customers frequently experience the problem of hidden costs. Except the older category, all others feel that interest charged is very high whereas the response of older group is that they always experience this problem. Regarding danger of losing credit card, all groups regardless of their age occasionally have this problem. Further, the first three groups opined that they
occasionally experience that credit cards involve hidden costs and unreasonable charges on late payments whereas the older group frequently have these problems.

It can be found that except SSLC group, all other education categories opined that they frequently experience the problem of high interest charged for credit cards, hidden costs and charges on late payments. It can be found that low income and high income groups reveal that they frequently experience the problem of high interest and unreasonable charges on late payments. In the case of danger of losing credit card, it can be noted that this problem increases as we move up from low income group to very high income group. Further, low income group seems to have very much bothered about the hidden costs involved in credit cards.

It is found that most of the credit card users expressed their dislike in using credit cards. They think it will create a spending culture among the people. Usage of credit card is still confined to the upper class of the society. Some of the adopters have dropped using it frustrated with the high rate of interest charged for using credit cards.

5.2.21. Customer Satisfaction of Branch Banking

The findings show that majority of the customers are satisfied with their bank’s location, quality of services provided by the bank, operating hours of the bank, and the behavior of the staff. But in the case of commission charged on services, provision of up-to-date information and awareness provided by the banks and parking facility, their overall satisfaction is low. Regarding location of the bank, and quality of services, level of satisfaction of the three group’s bank customers is more or less equal. But in the case of operating hours, behavior of the staff, provision of up-to-date information, awareness provided by the banks and parking facility, new generation bank customers are more satisfied as compared to the other two groups of bank customers.

In the case of operating hours of the bank, youngsters are less satisfied as compared to elder groups. With respect to parking facility, only older group is satisfied, whereas others are not much satisfied in this matter. Post graduates and professionals are less satisfied with the operating hours of the bank as compared to their counter parts. Regarding behavior of the staff, SSLC and professionals are very much satisfied as compared to other categories. Again, only pre-degree/plus two category is satisfied with
up-to-date information provided by banks whereas others are not much satisfied in this matter. Overall it is understandable that all the five education groups are satisfied with branch banking. Operating hours of the bank, middle income groups are less satisfied compared to others, whereas in the case of commission charged on services and parking facility, only very low income group is satisfied while others are not much satisfied in this matter. Regarding provision of up-to-date information provided by banks, very high income group is not much satisfied as compared to other groups. The aggregate figures reveal that all income groups are fairly satisfied with branch banking.

5.2.22. Customer Satisfaction of ATMs

Most of the users are very much satisfied with their ATMs except in the case of parking facility. Kerala based scheduled bank and new generation bank customers are well satisfied with their ATMs whereas level of satisfaction of nationalized bank customers is slightly low as compared to others. Level of satisfaction of all age groups except the older ones, is more or less same. Older groups opined that they are very well satisfied with all aspects of ATM transactions. In the case of parking facility, the level of satisfaction of all age groups is less as compared to other factors.

In the case of location and operating hours of ATMs the satisfaction level of all education groups are more or less equal. Regarding accuracy of transactions, Pre-Degree and Post graduates are relatively less satisfied as compared to others whereas for reliability of transactions, safety of ATMs and ease of use, Pre-Degree group’s level of satisfaction is less as compared to their counterparts. In the case of parking facility, only SSLC group is satisfied whereas others are less satisfied in this matter.

Further it is found that all income groups are fairly satisfied with ATMs.

5.2.23. Customer Satisfaction of Credit Cards

In the case of usefulness, safety and ease of use, users are fairly satisfied with credit cards but in the case of interest charged on payments, most of the users feel dissatisfied. Nationalized bank customer’s satisfaction level is low in the case of all variables, especially in the case of interest charged on payments, they feel dissatisfied. Kerala based and new generation bank customers are satisfied with the usefulness, safety
and ease of use of credit cards, but in the case of interest charged on payments, they also expressed dissatisfaction.

Regarding interest charged on payments, level of satisfaction of all age groups is very low, where the older group opined that they are dissatisfied in this matter. In the case of ease of use, level of satisfaction of middle aged is the highest followed by youngsters and elder group whereas it is low for older group. Altogether it is understandable that level of satisfaction declines as we go down from youngsters to older groups.

The aggregate figures show that post graduates are more satisfied followed by Pre-Degree, graduates, SSLC and professionals. The level of satisfaction reduces as we go up from the low income group to very high income group.

### 5.2.24. Customer Satisfaction of Internet Banking

Users of internet banking are satisfied with all the variables. In the case of security of transactions, level of satisfaction is low as compared to other factors. Overall it is understandable that users are fairly well satisfied with internet banking.

Kerala based and new generation bank customers are well satisfied with internet banking, but the level is low in the case of nationalized bank customers. Elder group has the highest level of satisfaction with respect to usefulness of internet banking followed by youngsters. Level of satisfaction of middle aged and older groups are more or less equal in this matter. Regarding ease of use, youngsters are more satisfied whereas the satisfaction level of elder group is slightly less. In the case of 24 hour service facility, all age groups are more or less equally satisfied. For security of transactions, satisfaction levels of all age groups are less wherein the level reduces as we go up from youngsters to older groups. In the case of speed of transactions, first three age groups opined that they are satisfied whereas the older group is dissatisfied in this matter.

Professionals have the highest level of satisfaction regarding usefulness followed by graduates, Pre-Degree, SSLC and post graduates. In the case of ease of use also, professionals has got the highest level of satisfaction and post graduates has the least satisfaction. For 24 hour service facility all education groups are fairly satisfied. In the case of security of transactions, satisfaction level of all education groups are less, among
them, Pre-Degree and post graduate groups have the lowest satisfaction. In the case of speed of transactions also, pre-degree and post graduate groups are not much satisfied as compared to their counter parts. The level of satisfaction declines as we move from the highest level of income to the lowest level of income.

5.2.25. Customer Satisfaction of Mobile Banking

Users feel very much satisfied with mobile banking. This is quite clear from the further study that all users irrespective of their bank, age, education and income are well satisfied with mobile banking. This gives evidence that mobile banking has great growth potential in the years to come.

5.4. CONCLUSION

Based on the above findings, it can be concluded that technology has greatly influenced the bank customers encouraging them to conduct banking in an innovative manner. They have good awareness regarding ATMs and credit card whereas it is low in internet and mobile banking. Further, variability of awareness of ATMs is less among the three groups of bank customers and among the different age, education and income groups whereas for all other e-banking delivery channels, variability of awareness is high among different categories.

Adoption of ATMs was highest followed by internet banking, credit card and mobile banking, whereas as droppage rate is high in the case of credit cards followed by mobile banking, internet banking and ATMs. Further it is revealed that variability of adoption of all the selected e-banking products is high among the three groups of bank customers where new generation bank customers are ahead of Kerala based scheduled bank and nationalized bank customers. Variability of adoption of ATMs and internet banking is high among the different age groups; here youngsters are leading; whereas it is low for credit cards and mobile banking. It is further found that adoption of ATMs and internet banking is dependent on education where highly educated have high rate of adoption. Income is closely associated with the adoption of ATMs, internet banking and credit cards where the high income groups are ahead of others but the picture is different in mobile banking proving that it is the cheapest e-banking delivery channel.
The study reveals that users of e-banking delivery channels have strong positive perception towards technology used in banking which is reflected in their adoption and usage of the same whereas non users clearly exhibited their disinterest and ignorance in using various technology driven banking channels. The study also identifies four perceptual factors such as convenience, perceived risk, speed of operations and accessibility which influences the adoption of ATMs wherein convenience, speed of operations and accessibility are positively associated with the adoption of ATMs whereas perceived risk has negative influence. In the case of internet banking also, four perceptual factors were identified wherein the factors ‘convenience’ and ‘cost effectiveness’ have strong positive influence and ‘perceived risk’ and ‘personal contact’ have negative influence on internet bank adoption.

It is further revealed that users’ different experiences with e-banking delivery channels and their satisfaction go hand in hand in the sense that those who have less difficulties exhibited high level of satisfaction and vise versa. In the case of all the selected e-banking delivery channels except credit cards, users do not have much difficulties and they are fairly satisfied with the same. In the case of credit cards, most of the users frequently experience high interest rates, hidden charges and charges on late payments which leads to low level of satisfaction of credit cards.

It is important to note that this study shows that e-banking technologies cannot be aggregated into a single category and thus a “one size fits all” marketing approach will not work across various e-banking products and services. Seeing an advantage in using a new technology would lead to an increase in the likelihood of adopting it. This was the case for all e-banking technologies examined. This study support that customers prefer a mix of banking delivery channels over a single channel.

The results of the study also point to the existence of a large, untapped target market which may be left behind in the state as the e-banking revolution moves ahead. This digital divide among bank customers offers great opportunities to the banks. A tandem approach by the Kerala banking industry and Government may help increase the adoption rate among those of lower socio-economic status.

The research findings clearly suggest that the drive towards ease of banking and convenience is favored by the customer and therefore banks should find alternative
strategic routes designed to improve service delivery either human based or technology based.

Mobile banking has immense possibilities and it is waiting for the right combination of technology and business model to storm the world of banking. It will assist in making financial inclusion possible by opening the doors of banking to the common man through mobile handsets.

It is important to understand that no technology can replace human interface. Computers cannot be made to work smarter than human beings in the foreseeable future. Personal choices, intuitions, likes, dislikes etc. will keep playing a dominant role in the way people interact with their service providers, customers and other counter parts. Technology will facilitate the transactions but it will be the man or woman behind the technology who will matter the most and have the last word.

5.3. SUGGESTIONS

Based on the above findings and conclusion on e-banking awareness, adoption, experience and satisfaction, the following suggestions are made to make further improvements in these aspects of e-banking.

1. The use of e-banking delivery channels is still not up to the mark as expected by the banks. This requires awareness building among the customers about the benefits of these services. Customers should be properly educated about the mechanism of using these services.

2. The banks have to initiate steps to educate the customers about new banking services / new products, ATMs, online banking, mobile banking etc. The banker may have to conduct different programs like customers day, customer meet and customer campaign in which they can directly interact with their customers and educate them about their new products /services.

3. Banks should take prompt and timely action to ensure the smooth functioning of ATMs. Customers should be relieved from their apprehensions and make them feel comfortable while using ATMs.

4. There is the need for banks to continuously persuade their customers to use ATMs for withdrawal of money. Eventhough most of the ATMs provide the service of
accepting deposits, many users do not avail of this service as they have apprehensions on its security aspect. It is very essential that bank officials should make necessary arrangements which will enable the customers to make their deposits through ATMs in a safe and secure manner. This will become a major breakthrough in the growth phase of ATMs as it will relieve the customers from depending their bank branches to make cash deposits.

5. For ensuring security, banks must appoint watch and ward staff who would also be able to guide the customers for availing services at ATMs. Steps should also be initiated to avoid the problem of technical breakdown which is common in some of the ATM centers through regular inspection and preventive measures.

6. For adoption of internet banking, it is necessary that the banks offering this service make the consumers aware about the availability of such a service and explain how it adds value to their banking needs.

7. Both users and non users experience higher risk in using internet banking. Bank managers should impart more information on various security and privacy measures adopted by them to the customers. Proper implementation of information security will be of utmost importance for banks to remain in business. Internet banking option is prone to fraud. Phishing for personal information over the web is common and difficult to uncover. Customer awareness education on how to use internet banking safely and precautions to take while sending sensitive information over the internet would help reduce fraud.

8. Banks should ensure safety and confidentiality while delivering services through internet banking. By customer education, bank managers can remove some disbelieves that non users have with regard to internet banking. So the challenge to all banks will be to expand the internet banking user base and slowly increase the range of services to the customers.

9. Since mobile banking has great growth potential in the future as it provides greater accessibility to the bank customers, banks should initiate urgent steps to encourage the customers to avail of the wide range of services delivered through mobile banking now. Banks should grow from the initial level of SMS banking to
WAP banking as it opens up more opportunities to the customers to conduct any banking transactions through their mobile handsets.

10. Since bank customers exhibited a lukewarm response towards credit cards due to high interest rates, hidden charges and unreasonable charges on late payments, banks should make necessary restructuring by way of reducing the interest rates and removing the unnecessary charges.

11. Branchless banking procedures can be challenging for people who are illiterate or unfamiliar with technology. Making customers aware of how best to use banking services is critical. While this is the responsibility of the bank, RBI and government can create the appropriate climate through a well-planned media campaign.

12. Customer awareness campaigns are necessary in each location where branchless banking has taken root. The banking correspondents’ roles and responsibilities should be explained to existing and potential customers by the principal banks. Practical demonstration on how to use their cards, mobile phones and authentications while transacting should all be part of customer awareness training. When inclusion of a large number of clients is targeted through banking correspondents, financial literacy campaigns are particularly important. The information passed on to customers at awareness events will increase their comfort level and make them knowledgeable of their rights and responsibilities.

5.6. SCOPE FOR FURTHER RESEARCH

This study opens up new areas for further research in many related areas. Some of them are listed below;

i. Diffusion of internet banking in India
ii. Effectiveness of ATM usage- A cost benefit analysis
iii. Problems and Prospects of Credit card usage
iv. Implementation of Core Banking Solution- Major Challenges
v. Mobile Banking Adoption- Opportunities and Challenges
BIBLIOGRAPHY


149. Vatan (2003), "Bankalar subesiz bankaciligi sevdi". Available at: 


   [http://info.isoc.org/guest/zakon/Internet/history/HIT.html](http://info.isoc.org/guest/zakon/Internet/history/HIT.html)


BOOKS


Websites

www.axisbank.com/


https://www.canarabank.in/

www.csb.co.in/

www.federal-bank.com/

www.hdfcbank.com/HDFC

www.icicibank.com/

www.keralabanking.com/

http://www.npci.org.in/

http://planningcommission.nic.in/

www.rbi.org.in/

https://www.sbi.co.in/

http://www.slbckerala.com/

https://www.southindianbank.com/

www.statebankoftravancore.com/

www.syndicatebank.com/

www.thebanker.com/