CHAPTER - VI

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

6.1. SUMMARY OF MAJOR FINDINGS

The study is conducted primarily to examine the influence of demographic, behavioral, perceptual beliefs and attitudinal factors on the adoption and usage of Self-Service Banking Technologies such as ATM, Internet banking, Telephone banking, Mobile banking and Mobile wallet services. The resulting consequences of behaviour towards Self-Service Technologies adoption and usage pattern, Perception towards service quality, satisfaction levels are also analysed. In order to achieve these objectives of the study, hypotheses were proposed and all of them were tested using appropriate statistical tests.

Two attitude/ intention models are also proposed one for depicting ATM usage and the other pertaining to internet banking usage. In these two cases the projected models are tested using Structural Equation modeling and resulting relationships among the beliefs, attitude, intentions and use percentage are shown as findings.

The summary of findings from the testing of hypothesis is shown in table 6.1. The main findings are divided into different sections and explained, followed by suggestions.
Table 6.1 Summary of test results of the study hypothesis

<table>
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<tr>
<th>S.No</th>
<th>Hypotheses</th>
<th>Results</th>
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<tbody>
<tr>
<td>1</td>
<td><strong>H</strong>₁ₐ. The adoption levels of the Self-Service Technologies by bank customers vary significantly with the variation in the gender.</td>
<td>Not supported</td>
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<td><strong>H</strong>₁₈. The adoption levels of the Self-Service Technologies by bank customers vary significantly with the variation in their age.</td>
<td>Supported</td>
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<td><strong>H</strong>₁₉. The adoption levels of the Self-Service Technologies by bank customers vary significantly with the variation in their type of occupation.</td>
<td>Supported</td>
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<td><strong>H</strong>₁₉₄. The adoption levels of the Self-Service Technologies by bank customers vary significantly with the variation in their income level</td>
<td>Supported</td>
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<tr>
<td>2</td>
<td><strong>H</strong>₂. The adoption levels of the Self-Service Technologies by bank customers vary significantly with the variation in their place of residence</td>
<td>Not supported</td>
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<tr>
<td>3</td>
<td><strong>H</strong>₃. There is a relationship between the various dimensions of Self-Service Technologies Adoption</td>
<td>Partially correlated</td>
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6.1.1. General findings

6.1.1.1. Demographic profile of the respondents

- Out of 377 respondents, majority (68.2 percent) of the respondents are male.
- Out of 377 respondents, greater part (31.8 percent) of the respondents belongs to the category of 18-27 years old.
- In the educational qualification of the respondents, major (37.9 percent) parts of them have done their Master degree.
- The maximum (38.7 percent) of the respondents belongs to the student group with various professional degrees.
- Majority (54.1 percent) of the respondents are married.
➢ Majority (62.3 percent) of the respondents’ income lie between no incomes or up to 15000 categories.

➢ The maximum (50.1) of the respondents are from the semi-urban part of the district followed by second maximum (27.9) were from the rural part.

6.1.1.2. Branch visit frequency

When asked about the frequency of visit to a prime bank, the maximum (46.9 percent) of the respondents have selected monthly once as their preference. Next maximum (23.6 percent) of the respondents visits very rarely. From the literature study (Joshua 2009) it is found that when customers adopt Self-Service Banking Technology their frequency of branch visit got reduced.

From the result of comparisons made between the branch visit frequency and demographic factor like gender, it is found that majority (68.2 percent) of the respondents visiting branch on a monthly (45.5 percent) basis are males whereas female respondents (31.8 percent) visiting branch on a monthly basis is 50 percent.

Branch visit frequencies are significantly differ between the users and non-users of Self-Service Technologies like internet banking and mobile wallet. This shows that the usage of the Self-Service Technologies significantly has reduced the branch visit of the customers whereas in the case of other three services (ATM, Telephone banking and Mobile banking) there is no significant difference between the users and non-users.

6.1.1.3. Multiple bank accounts

Majority (73.2 percent) of the respondents have more than one bank account either in the same bank or in another bank. This might be for the reason of getting service like ATM, Internet banking from the alternate bank. Many of the respondents have opened their alternate account after the implementation of minimum withdrawal
transaction limit from their prime bank as per RBI norms. Some banks are imposing commission for the NEFT/RTGS/IMPS transfer and this might also be the reason for having multiple accounts by the customers.

6.1.1.4. Type of bank account

Vast majority (92.8 percent) of the respondents is having savings bank account and this might be because of various financial inclusion programmes made by the government and banks.

6.1.1.5. Bank choice Criteria

From the Henry Garrett ranking techniques, it is found that the convenience of location was the most cited reason for selecting the respondents’ prime bank, followed by the wide spread of ATMs, better service and friendly staff and availability of more technologies. Bank branch services play an important role in bank choice criteria despite the services provided through Self-Service Technologies. But the second reason is the wider spread of ATMs and this shows the accumulation of one of the SSTs to a greater extent than others.

6.1.1.6 Types of electronic banking channels

Of the total respondents, 92.9 percent of the respondents are using ATM and this proves that a vast majority of the respondents have adopted ATM as their major Self-Service Technology delivery channel and also shows the strong penetration of ATM in the past few years.

6.1.2 Usage patterns of Self-Service Technologies

6.1.2.1 Usage of computers and internet

Of the respondents 69.2 percent have stated that they have access to computers and 62 percent have responded that they have access to internet.
The majority of the respondents (65.8 percent) are regular users of computer as evident from the computer usage pattern which shows that the largest percentage (30.8 percent) of respondents use computer for one to three hours per day. 18.3 percent of the respondents use computers for one hour or less and 9.3 percent of the respondents use the computers for 3 to 6 hours per day.

The results showed that majority (62 percent) of the respondents browse internet on a daily basis for one to 6 hours and the rest hardly use. The frequency of internet usage and hours of internet browsing are found to be higher among the users as compared to non-users of Self-Service Technologies. From the hypothesis it has been proved that those who browse computer and internet more have more adoption of Self-Service banking Technologies.

Hence banks can target those customers whose usage of computers, internet and other technology are relatively on the higher side.

6.1.2.2 Awareness on Self-Service banking Technologies

Awareness levels about ATM are found to be 100 percent because of its penetration and growth in recent years whereas for Internet banking it is found to be 60.5 percent. In case of telephone banking and mobile banking it was 32.6 percent and 67.4 percent respectively. It is 16.7 percent for Mobile wallet and this awareness level is found very minimum because many of the banks do not provide this service.

Awareness levels among non-users of these services are still lower at 29.4 percent, 18.8 percent, 28.6 percent and 6.3 percent respectively for Internet banking, telephone banking, mobile banking and mobile wallet services.

When compared with Semi-urban areas, the awareness levels are lower in rural and urban areas. Therefore, in order to encourage the usage of these services, banks have
to proactively promote these services as it is found that awareness is the first essential stage in the adoption process.

6.1.2.3 Frequency and length of different Self-Service technologies

It is found that ATM is the most frequently used Self-Service Technology channel with 72.3 percent of respondents using it at least once or twice a week. Internet banking is the second widely adopted SST channel of about 60.3 percent using this service at least once in a month. Telephone banking service is not popular among all the respondents since only 46.7 percent are using it at least once in a month.

In the case of mobile banking services, 53.2 percent of the respondents are using it at least once or twice in a week. This may be due to the higher penetration of the smartphone among the customers even in the rural parts of the districts. It is also found that 50 percent of the respondents use mobile wallet service once in a week or twice a week. This may be due to the fact that mobile wallet was just introduced by a few banks at the time of the survey.

Concerning the length of usage in case of ATMs majority of the respondents (65.1 percent) have been using it for more than 3 years, while the maximum of the internet banking users (35.5 percent) have been using it for two to three years. In the case of telephone banking maximum of the respondents (47.8 percent) has been using it for less than one year. Similarly is the case with mobile banking services users with maximum of (42.3 percent) for less than one year. Since the mobile wallet services are introduced only recently obviously all the users are using it for less than one year.
6.1.3. Factors affecting adoption and adoption levels of self-service banking technologies

6.1.3.1. Demographic factors and adoption levels of Self-Service banking Technologies

a) Gender wise comparison of adoption levels

Even though the adoption levels among the male segment of the respondents are more than the female segments except in the case mobile banking, the difference is statistically significant only in case of telephone banking at 95 percent confidence level. Some of the studies done abroad (Laforet and Li, 2005) have shown that the adopters of SSTs are predominantly males.

b) Age wise comparison of adoption levels

From the ANOVA test it is found that adoption levels of all the Self-Service technologies like ATM adoption levels (ATM_adp), Internet banking adoption levels (IB_adp), Telephone banking adoption levels (TB_adp), Mobile banking (MB_adp) and Mobile wallet (MW_adp) are significant among the different age groups. It is also found that the age group 18-37 has to be targeted for promoting theses services as this age group has the maximum potential for adoption of SSTs.

c) Occupation and adoption level

From the ANOVA test it is found that adoption levels of all the Self-Service technologies like ATM adoption levels (ATM_adp), Internet banking adoption levels (IB_adp), Telephone banking adoption levels (TB_adp), Mobile banking (MB_adp) and Mobile wallet (MW_adp) are significant among the different occupation groups. The self employed people and business people are the fewer users of these self-Service technologies except ATM and bank should concentrate more on this group.

d) Income wise comparison of adoption levels
It is evident from the analysis of variance test that the difference in the adoption levels of Self-Service Technologies (ATM adoption levels (ATM_adp), Internet banking adoption levels (IB_adp), Telephone banking adoption levels (TB_adp), Mobile banking (MB_adp) and Mobile wallet (MW_adp)) with respect to the income levels is statistically significant. In most of the services the highest adoption levels are shown by the specific income group in the study (30000-45000 per month).

6.1.3.2. Comparison of adoption levels among various places of residence

It is found that the respondents from the semi-urban have higher adoption levels in all the Self-Service Technology channels except in the case of Telephone banking more than others. It is less in telephone banking service because of the less usage of telephone in the semi-urban areas.

From the analysis of variance test it is found that the adoption levels of all the SSTs is not statistically supported and thereby we can conclude that the place of residence of the respondents do not vary with the adoption levels of Self-Service Technologies.

6.1.3.3. Determinants of Self-Service banking Technologies adoption levels

From the result of the factor analysis showed that the present study divides the determinants of SST adoption levels into three categories. First one is named as ‘Relative advantage/Perceived benefits’ which contains advantages of using Self-Service banking technologies and is believed to offer relative benefits over the traditional face-to face branch banking services. Second factor is named as ‘Self efficacy/ Capacity’ which shows to what extent the customer believes that he/she has the perceived ability to use the SSTs and how much a customer is confident of using it. The third category is named as ‘Need for personal contact’ which means in the delivery of banking services to what
extent the customer wants to have personal contact or face-to-face interaction with the bank employees.

6.1.4. Services used by the respondents

6.1.4.1. ATM services

All the respondents are using ATM primarily for cash withdrawal purpose. Next vast Majority (80.6 percent) of the respondents use ATM for the purpose of balance enquiry and the least services used by the respondent (6 percent) is cheque book request.

6.1.4.2. Internet banking services

Among the Internet banking users, vast majority (87.3 percent) of the respondents are using it for the online shopping purpose. The next majority (71.1 percent) of respondents are using it for the purpose of fund transfer since it is the main function. Cheque book request service is used by the least number of respondents (21.1 percent) since it is related to the branch banking service.

6.1.4.3. Telephone banking services

Of the users, all the respondents were using this service for the balance enquiry purpose since almost all the banks have introduced missed call enquiry service. Next maximum of respondents were using account statement request and customer care services with 31.1 percent.

6.1.4.4. Mobile banking services

From the users of mobile banking users it is found that majority (74.8 percent) of the respondents are using it for the purpose of mobile/DTH recharge. The second majority (68.5 percent) of the respondents are using it for the purpose of fund transfer. The services like Statement Enquiry, Online shopping, Ticket booking and Bills payment are also used by the respondents with the percentages 62.2, 55.9, 55.9 and 49.5
respectively. This shows that a mobile banking service has gained a great popularity among the customers.

6.1.4.5. Mobile wallet services

Among the fewer users, maximum (66.7 percent) numbers of respondents are using it for the purpose of mobile/DTH recharge. The second majority (50 percent) of them were using it for the purpose of travel/entertainment ticket booking.

6.1.5. Customer satisfaction and perception of individual self-service banking technologies

6.1.5.1. Relationship between the service quality perception, customer satisfaction and the adoption levels of self-service banking technologies

From the chi-square test, it is inferred that there is an association between the satisfaction level and gender of the respondents in the case of ATM, Internet banking and mobile banking at 95 percent confidence level where as in the case of telephone banking it is not supported.

From the chi-square test, it is inferred that there is an association between the satisfaction level and place of residence in the case of Internet banking and telephone banking at 95 percent confidence level where as in the case of ATM and mobile banking it is not supported.

The perception pertaining to the service quality and customer satisfaction of the services through the self-service banking technology channels is found out for ATM services, Internet banking services, Telephone banking services and Mobile banking services.
The satisfaction levels and service quality perceptions are not significant in the case of Internet banking, Telephone banking and Mobile banking for the different gender groups.

Different places of residence show significant variations in the customer satisfaction and service quality of these self-service banking technologies except of mobile banking service.

6.1.5.2. Mobile banking perceptions

Most important aspects aiding the use of mobile banking services is that mobile phone is a familiar device and that it remains always with a person. This is proved by Likert scaling techniques.

From the Friedman test, it is found that the main factor hindering the adoption of mobile banking is ‘feeling comfortable with other means of conducting banking transactions’ followed by lack of familiarity.

6.1.5.3. Mobile wallet perceptions

Most predominant factor that motivates the customers for the adoption of mobile wallet service is consumption of time followed by any time service. This has been proved by Likert scaling techniques.

From the Friedman test, it is found that the main factor hindering the adoption of mobile banking is ‘Lack of awareness’ followed by the reason ‘feeling comfortable with other means of conducting banking transactions’. Awareness is not enough among people because the service is still in its premature stage of adoption.

6.1.5.4. Reasons for non-use of Internet banking and telephone banking

From the Friedman test, it can be inferred that non-usage of internet banking services and telephone banking services was due to the comfort in other modes of
financial transaction either through branch banking or ATM. The second most prominent reason for not using the service is the lack of training given by the bank.

Other major reason for non-usage of these services is lack of proper awareness about the service. About 70.6 percent of the non-users of internet banking have no awareness regarding the service and 81.2 percent of the telephone banking users have no awareness about this service.

6.1.5.5. Challenges in using ATM

It is inferred that machines out of cash i.e. non-availability of sufficient fund at all time and not proper printing of statement for the transactions are the major challenges faced in using ATM. Some other challenges that occur rarely are machines getting out of order and long waiting queues and these problems are unavoidable at certain conditions.

In our study there are few respondents who are presently not using ATM services due to the following reasons. ATM card gets damaged or missed out, PIN gets locked because of more than three trials and these reasons are found out from the respondent through informal discussion.

6.1.5.6. Relationship among Beliefs, Attitude and Intention to use ATMs and Internet banking

The SEM model has been constructed to assess the relationship among Beliefs, Attitudes and Intention to use ATM and Internet banking. The outcome shows the antecedent belief security of usage shows significance towards the usage of ATM services where as in the case of Internet banking, perceived usefulness shows greater significance on the intention to use that particular service.
6.2. MANAGERIAL IMPLICATIONS AND SUGGESTIONS

1) The banks have to locate their bank branches and ATM centers conveniently to target their customers and see to it that it is staffed with subservient employees and maintain great service standards. This is because, as seen from the results, the bank branches are still relevant in the Indian context and the result shows that important bank choice criteria are convenience of location, wide spread of ATMs, better service and friendly staff. So in spite of different modes of SST, the banks cannot choose to ignore their bank branches in India.

2) Banks have to ensure that their customers are using the SSTs provided by them so that the branch visit frequency by their customers which was found to be the highest could be reduced. All the nationalised banks have to encourage semi-urban customers to use more of SSTs than to depend on branch banking as it is found that the branch visit frequency of the semi-urban customers is more in urban areas. The banks can probably promote the usage of SSTs among their customers and provide incentives for usage by way of reduced banking charges if the transactions are done through SSTs.

3) The results show that the users of SSBTs spend significantly more time before the computers and browse internet more often than non-users, therefore the banks have to target those customers whose usage of computers, internet and other technology products are on the higher side for promoting SSTs usage.

4) Lack of awareness among the non-users could be a major reason for not adopting the SSTs. The awareness among the rural customers is very low when compared to the urban and semi-urban customers. The nationalised banks have to increase the awareness level among these customer segments through
promotional measures such as advertising, publicity and so on. Awareness
camps for SSTs adoption like CASA (opening of current account and savings
account) can be organized by the banks which will create more awareness and
there by a bank can train their customers.

5) The nationalised banks have to encourage the existing users of SSTs such as
internet banking, telephone banking, mobile banking and mobile wallet to use
these services more frequently, as the study shows that majority of the users are
using it only on a monthly basis. Perhaps the trepidation about the usage of
services might be preventing them from using these services more frequently.
The banks can encourage their customers to use these services more frequently
through rewarding points and also by reducing the service charges. Many of the
private banks have the advantage of ‘zero charges for fund transfer’. Nationalised banks should also provide such benefits for the frequent users.

6) Performing mobile banking transactions is even more flexible as a mobile has
become an indispensable device nowadays and perhaps the banks can convince
the customers regarding telephone banking and mobile banking’s low start up
costs.

7) Though ATMs are the most commonly adopted SSBT and the percentage of
transactions through them exceeds even those of the traditional branch banking,
they are still being used by majority of the users as convenient cash dispensers.
There is a need to promote the usage of its value-added services such as mobile
recharge, fund transfer and even some of the basic services such as cash deposit.

8) As it is found that fund based transactions and other value added services are
utilized only by a minority of the sampled respondents, the banks have to
encourage the usage of these services in order to ensure the full potential of SSTs and safe way of doing it.

9) As the adoption levels of SSTs are found to be less in the case of female customers, banks have to put extra efforts in popularizing these services amongst female customers.

10) The banks have to initially target the 18-27 age group (highly educated) to promote the SSTs so that the probability of adoption is more. In some of the services the age group 28-37 also becomes the potential customers so it is necessary to promote this group to create more adoption among the customers.

11) The study has revealed that the adoption levels of customers from rural areas are significantly lower in case of all the Self-Service banking Technologies except telephone banking as compared to Urban and semi-urban. So banks should take steps to improve the usage level in the rural areas. All the banks in rural area are having ATM machine inside the branch and nobody is using it. Banks should appoint some attender to carry out the services like cash withdrawal, passbook entry and so on.

12) Of the three determinants of SSBT adoption level measured, it is found that the relative advantage has the highest impact on total Self-Service technology adoption followed by the perception of self efficacy and lack of need for personal contact. So banks will definitely benefit if they identify more technology channel among their customer base and who don’t prefer personal service and then convince this category about the relative merits in using the SST channel.
13) The service quality has significant influence on customer satisfaction levels of SSTs so the banks have to improve the quality of services provided through these self-service banking channels. For instance, in case of Internet banking, service quality can be ensured by banks through the development of a website containing all the required information, high level security providing error free transactions, with generous options, fast resolution for complaints and easy navigation. Likewise for ATM banks should improve their quality service by making availability of cash all the times which means frequent check of cash availability in ATM. In the case of telephone banking, clear instructions and avoiding too much waiting time will increase the customer satisfaction.

14) Another implication to the management of the banks is that the delivery of the services through these channels completely changes the equation. When we look into the satisfaction levels of customers among various places of residence semi-urban customers are satisfied more when compared to the rural so the banks should offer these services to such areas. In case of ATM, attenders must be appointed to help the customers in order to avail services such as Passbook entry form the Kiosk, sometimes cash withdrawal and also for cash deposit services.

15) The most important reason for the non-usage of internet banking and telephone banking services are that the customers are happy with other modes of transaction such as branch banking and ATMs, lack of awareness, lack of training by the banks and so on. To overcome these factors, banks have to educate the customers regarding the advantages of transacting through these electronic banking channels, provide training to customers especially female in
using them and assure the customers regarding the latest security measures employed by them.

16) The most important reasons for the non-usage of mobile banking service apart from non-availability of smart phones with customers are that they are happy with other modes of transactions followed by the lack of familiarity. Mobile phone has become an essential device nowadays; mobile banking has great potential as the self-service technology in current situation. Again proper education is needed especially in the rural areas of the districts and providing training for those using this service becomes a mandatory suggestion to every nationalised bank.

17) From the projected attitude/intention models for ATMs and the internet banking, it is found that the antecedent beliefs influence the usage of SSTs in a significant way. As for the concerns regarding the security while using these services which is the most prominent antecedent belief influencing the usage of SST, the banks have to alleviate these fears through proper customer education and provide appropriate guarantees for proper performance. As usefulness is a significant belief which can positively influence the intention towards continued usage of internet banking, the banks have to make the process very simple and at the same time more reliable.

6.2.1. General Suggestion given by the respondents

Respondents are asked to give their suggestions which will help for the development of Self-Service technology to the nationalised banks with an open ended question. Some of the most valuable and common suggestions given by the respondents are below:
18) Unlike ATM none of the service has vernacular language in its website or applications. Many of the respondents are not using most of the self-service technologies because of the non-availability of instructions in regional language so banks should modify the language pattern so that the services like Internet banking, mobile banking and mobile wallet would be available in different languages. Recently State bank of India launches its mobile wallet application called e-buddy which is available in 13 languages. Nationalised banks also should introduce major languages into their website or applications.

19) In the rural areas ATM machines are kept inside the branch so that the customer could not use the service 24x7. Banks should take alternate measures to provide the separate ATM centers in those areas by appointing security guard.

20) Complaint resolution of the self-service technologies becomes the next issue among the respondents. It takes too much time to resolve any problem when compared to the normal problems because separate authorities are maintaining these services so banks should make quick response in resolving the customer’s complaint on these services.

21) Card (Debit card/ATM card) to account transfer should be introduced in all the ATMs of nationalised bank like the service opted by the State Bank of India.

22) Continuous or periodic feedback system should be made available at all the bank websites after performing Internet banking or Mobile banking transactions.
6.3. CONCLUSION

From the study it is found that banks in India are providing various services through electronic banking channels which are known as Self-Service technologies such as ATMs, internet banking, telephone banking, mobile banking, mobile wallet and so on. In previous years only the private banks have taken initiatives in delivering these services but now the scenario has changed, more public sector banks have involved more efficiently in promoting the electronic channels among their customers. However it is found that only ATMs are widely adopted by the customers. Adoption of other SSTs is still to pick up in a big way. The study has attempted to look at the consumer behaviour towards the adoption of these SSTs in totality as it has considered the factors pertaining to all the five prominent SSBT namely ATMs, internet banking, telephone banking, mobile banking and mobile wallet.

The proposed model developed using the relevant constructs from the established frameworks from the behaviour and technology acceptance literature and similar studies done in other countries are able to explain the phenomenon of SSBTs adoption and usage reasonably well in the Indian context also. These models are successful in bringing out several implications relevant to both practitioners and academicians in this area. The study shows that with appropriate measures taken by banks in India, Self-Service Banking Technologies have great potential to transform the way Indians do banking to enrich and enhance their lives in this technological area.