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FINDINGS, SUGGESTIONS AND CONCLUSION

Having presented the analysis of the data and research results in the previous chapter, this chapter presents the major findings of the study, and provides a few suggestions for the betterment based on the interaction with the respondents and the problems identified in the study. At the end, certain broad areas for further research are suggested and a formal conclusion is arrived at.

6.1 Major Findings of the Study

The major findings of the study are presented in two parts. Part-A Findings on the Customers' Perspective and Part-B Findings on the Employees' Perspective

PART-A : CUSTOMERS' PERSPECTIVE

6.1.1 Transaction with Other Banks

Regarding the issue of the number of banks with which the respondents are transacting, 75.6 per cent of the respondents said that they also transact with banks other than the one with which they have frequent transactions. Out of 405 respondents, 306 respondents transact with more than one bank. Of the 306 respondents 186 are found transacting with two banks including the one with which they have frequent transactions, 82 are transacting with three banks, 20 are transacting with four banks and 18 are transacting with more than five banks.
6.1.2 Awareness of E-banking Facilities of Frequently Transacted Bank

With regard to the question whether the frequently transacting bank provides E-banking services or not, 98.5 per cent of the respondents of all the bank groups opined that such banks provide E-banking services. This shows that 98.5 per cent of the respondents are aware of (at least one) E-banking services provided by their frequently transacting bank.

Out of 405 respondents, it is found, 379 respondents are availing themselves of E-banking transactions. Of the 379 respondents, 144 (37.99%) are the customers of the public sector banks, 133 (35.09%) are of the old private sector banks and 102 (26.91%) are of the new private sector banks.

6.1.3 Frequency of Availing E-banking Services

Among the respondents availing themselves of E-banking services 47.22 per cent respondents of the public sector banks, 68.42 per cent respondents of the old private sector banks and 26.47 per cent of respondents of the new private sector banks have monthly transactions ranging from 1 to 5 and 47.91 per cent respondents of the public sector banks, 27.07 per cent respondents of the old private banks and 56.86 per cent respondents of the new private sector banks have transactions ranging from 6 to 15. Only 30 respondents of all bank groups availing themselves of E-banking have more than 15 monthly transactions. The chi-square test shows a highly significant difference in the frequency of using E-baking among the respondents of new private sector banks when compared to the other two bank groups.
6.1.4 Customers' Preferred Service Delivery Channel

Of the total sample, 79.8 per cent of the respondents prefer electronic banking. There is a highly significant difference in the preference of E-banking over traditional banking methods between the respondents of new private sector bank and the other two categories of banks as evidenced by the chi-square test. The preference for electronic banking services is more with the respondents of new private sector banks.

6.1.5 Customer Awareness of Electronic Banking Products

All the respondents under survey are aware of the ATM service delivery channel, 84.7 per cent is aware of Credit/Smart Cards, 73.8 per cent of them is aware of Mobile Banking, 33.8 per cent is aware of Tele-banking. In the case of Internet Banking 71.4 per cent of the respondents is aware of it. EFT is a service available on Internet Banking, Mobile Banking and also branch banking models: among the respondents 62.7 per cent is aware of such services. Among the respondents, 63.7 per cent is aware of MICR/CTS clearing systems. The awareness level of E-banking services is the highest as regards the ATMs followed by Mobile Banking and Internet Banking. Tele-Banking awareness among the respondents is found to be very low.

There is a significant difference in the awareness of the E-banking products of the new private banks as against the public sector and the old private sector banks as proved by the chi-square test except as regards the ATMs. As far as the ATMs are concerned, all the respondents are aware of it irrespective of the bank
and the area to which they belong. This lends evidence to the fact that the awareness of the E-banking services of respondents of new private sector bank is more than that of the respondents of the other two groups of banks.

6.1.6 Availability of E-banking Services

About 99.8 per cent of the respondents opined that ATM service is made available from the bank. Fisher's exact test proved that there is no significant difference, among the different bank groups, with regard to the availability of ATM services. With respect to Credit/Smart Cards 71.6 per cent of respondents said that the Credit/Smart Cards are made available from their banks. According to 69.9 per cent respondents, Mobile Banking service is also available. As far as Tele-Banking is concerned, 22.7 per cent opined that Tele-Banking is available. Further, 67.7 per cent of the respondents said that Internet-Banking service is available, 64.2 per cent respondents said that EFT services are available and 60 per cent of the respondents opined that MICR/CTS facilities are also available. There is a highly significant difference as proved by chi-square test, in the opinion of the respondents of the new private sector banks when compared with the other two categories of banks regarding the availability of E-banking services except for ATM facilities.

6.1.7 E-banking Service Availability in Different Regions

According to 98.1 per cent of the respondents ATM service is available in rural areas, and according to all respondents such services are available in semi-urban and urban areas. With respect to Credit/Smart Cards 40.7 per cent of rural,
75.5 per cent of semi-urban and 76.5 per cent of urban respondents said that these facilities are available. According to 43.6 per cent rural, 72.9 per cent semi-urban and 73.7 per cent urban respondents, Mobile Banking service is also available. As far as Tele-banking is concerned, 1.9 per cent rural, 22.9 per cent semi-urban and 26.7 per cent urban respondents opined that the facility is available. Further, 42.6 per cent rural, 72.9 per cent semi-urban and 71.2 per cent urban respondents said that Internet-Banking service is available and 51.9 per cent rural, 64.3 per cent semi-urban and 66.5 per cent urban respondents said that EFT services are available. Among the respondents 44.4 per cent rural, 60 per cent semi-urban and 63 per cent respondents opined that MICR/CTS facilities are also available. There is a highly significant difference as proved by chi-square test in the availability of Credit/Smart Cards, Mobile Banking, Tele Banking and Internet Banking services in the rural and the other two regions.

6.1.8 Adoption of the ICT Products

ATM is one of the E-banking facilities widely used by the respondents as the largest number of respondents i.e., 89.9 per cent, are availing themselves of the same. In the case of Credit/Smart Cards 32.3 per cent of the respondents is availing themselves of such cards. Hence Credit/Smart Cards are not very popular in the study area. In the case of Mobile Banking, a meagre 26.4 per cent of the respondents is availing themselves of the services and hence Mobile Banking is also less popular in the study area. As far as Tele-Banking is concerned only 4.4 per cent respondents is availing themselves of it. This shows that Tele-banking is almost unknown in the study area.
Internet Banking is a very important self-service E-banking facility that has made 'anywhere and anytime banking' possible. The services of Internet Banking can be accessed by the customers having computer and internet facilities. About 26.7 per cent of the respondents is found availing themselves of Internet Banking facility. Among the 405 respondents 28.6 per cent is availing themselves of EFT services and 28.6 per cent is availing themselves of MICR/CTS services. There is a highly significant difference, as found by the chi-square test, in the adoption of ATMs, Credit/Smart Cards, Mobile Banking, Tele-Banking and Internet Banking between the respondents of the new private sector banks and the old generation banks.

The analysis of the acceptance of ICT by the respondents has been done on the basis of percentages. The level of application of ICT in the public sector banks has been 58.63 per cent and in the old private sector banks 58.77 per cent whereas in the new private sector banks it has been 84 per cent. The Kruskal-Wallis test found that there is a highly significant difference in the application of the ICT products among the respondents of the new private sector banks when compared with the old generation banks. Hence, the hypothesis that the level of application of ICT differs between old generation banks and new generation banks is tested, proved and accepted.

The analysis of the level of adoption of ICT services in different regions showed that, the adoption in rural areas is poor and in semi-urban and urban areas it is moderate. A comparison of the level of adoption between rural and urban areas and also between rural and semi-urban and urban areas has been made. The
Kruskal-Wallis test and Mann-Whitney tests applied found a highly significant difference in the level of adoption between rural and urban areas. Hence the hypothesis that the adoption of ICT is urban biased is tested proved and accepted.

6.1.9 Purposes of E-banking Use

It is found that about 89.9 per cent of the respondents is availing themselves of E-banking facilities for small withdrawals, 47.4 per cent is utilising the same for small transactions like payments of utility bills and so forth and 16.3 per cent of respondents is making use of this for business payments. Further, 52.8 per cent of the respondents is availing themselves of E-banking services for purchases at Point of Sale terminals and 25.7 per cent uses this for booking travel and cinema tickets in advance. About 42.5 per cent of the respondents' uses E-banking for money transfers and 10.6 per cent use this for other purposes like balance enquiry, transaction summary, cheque clearance enquiry and so forth.

There is a highly significant difference in the use of E-banking by the respondents of the new private sector banks when compared with the other two categories of banks for all purposes as is proved by the chi-square test. Overall, E-banking is widely used for withdrawals followed by purchases and booking travel and cinema tickets in advance. The study revealed that the use of E-banking for business payments and other purposes is relatively less.
6.1.10 Customer Satisfaction

Assessment of customer satisfaction has been done on the basis of the mean score, where if the mean score is equal to 3, the respondents are assumed to be neutral, if the mean score is less than 3, they are not satisfied and if mean score is greater than 3, they are assumed to be satisfied. Further, if the mean score is greater than 4, they are assumed to be highly satisfied and if mean score is less than 2, they are highly dissatisfied. The level of satisfaction on ATM services by the respondents was 4.37± 0.63, which shows the customers are highly satisfied. In the public sector banks the level of satisfaction has been 4.31± 0.66, and in the old private sector banks it has been found to be 4.38± 0.62 and in the new private sector banks it has been 4.43± 0.57. The level of satisfaction has been highest in the case of the new private sector banks, followed by the public sector banks and the old private sector banks.

The customer satisfaction in Credit/Smart Card services has been 4.23± 0.69, which shows that the customers are highly satisfied. In the public sector banks the level of satisfaction has been 4.35± 0.70, in the old private sector banks it has been 4.10 ± 0.64 and in the new private sector banks it has been 4.23± 0.70. The level of satisfaction has been relatively more in the case of the public sector banks followed by the new private sector banks and the old private sector banks. There is no significant difference in the level of satisfaction of the respondents among the banks on Credit/Smart Card services. The customers of all the banks are highly satisfied as regards the Credit/Smart Card services.
The level of customer satisfaction regarding Mobile Banking was 4.18±0.72, which shows that the customers are highly satisfied. The level of customer satisfaction regarding Mobile Banking was more in the case of new private sector banks, followed by the old private sector banks and the public sector banks. The customers of public sector banks are satisfied while that of the old private sector banks and the new private sector banks are highly satisfied as regards to Mobile Banking services. The Kruskal-Wallis test shows a significant difference in the level of satisfaction of the customers of new private sector banks when compared with the customers of other two groups of banks regarding Mobile Banking services.

The level of satisfaction regarding Tele-Banking services by the respondents was 3.89±0.76 shows the customers are satisfied. The customers of the public sector banks are satisfied while the customers of the old private sector banks and the new private sector banks are highly satisfied as regards Tele-Banking services. The customers of the public sector banks are satisfied while the customers of old private sector banks and new private sector banks are highly satisfied with the Internet Banking services. The respondents of all the banks are highly satisfied with the EFT services. Also, the study found, the customers of all banks are highly satisfied with reference to MICR/CTS services. Thus, the hypothesis customers are satisfied with ICT adoption has been tested proved and accepted. The customer satisfaction score was the highest for ATM services followed by the Credit/Smart Cards and the EFT services and the lowest satisfaction was derived from Tele-banking services.
Factor Analysis has been made to drive home the major factors determining customer satisfaction. The final results of the application of the factor analysis came out in the form of reduction of seven identified factors into two major factors affecting satisfaction of customers availing themselves of ICT services. Factor 1 with a variance of 30.473 per cent and factor 2 with a variance 22.835 per cent. Factor 1 is a primary factor and it includes ATM with factor loading 0.553, Cards (Credit and Smart) with factor loading 0.748, Mobile Banking with factor loading 0.767, Tele-Banking with factor loading 0.490 and Internet Banking with factor loading 0.644. These components were together called remote E-banking services. Factor 2, which is a secondary factor, includes EFT services with factor loading 0.787 and MICR/CTS systems with factor loading 0.857 which are branch based E-banking services.

6.1.11 Perception on Quality of Service

The quality of service of the ATMs of the new private sector banks was the most superior, followed by the old private sector banks and the public sector banks. The service quality rating of Credit and Smart cards was the highest in the case of new private sector banks, followed by the public sector and the old private sector banks. The quality of service of Mobile Banking services of the new private sector banks was superior to the other bank groups. The quality of service of Internet-banking of all the bank groups was found excellent. The EFT services of public sector banks and new private sector banks were excellent and that of the old private sector banks were found good. The quality of service of all E-banking services of the new private sector banks is superior to the E-banking services of
the public sector banks and the old private sector banks. Further, 94.4 per cent of the respondents agreed that the ICT has made a positive impact on the service efficiency of the banks in the region.

6.1.12 Physical Consultancy Requirement

Regarding the need for consultation with the banker, 304 (75%) of the 405 sample respondents felt the need for consultancy, which rule out the possibility of a complete virtualisation of banking system in the study area. Relatively more respondents are in favour of the need for consultancy with the bank personnel. This shows that the customers are not fully prepared to bank through technology solutions alone, but they wish to mix both branch and E-delivery channels in availing themselves of banking services. According to the chi-square test there is a highly significant difference between the responses of the respondents of the old private sector banks and of the other bank groups.

6.1.13 Virtualisation of Banking

There is not enough support from the respondents to the statement that ICT will completely replace bank branches as only 24.3 per cent of the respondents visualise the possibility of a total replacement of the present branch structure by virtual banking as against 46.4 per cent respondents who rule out such possibility.

6.1.14 Benefits of E-banking

The responses regarding the benefits of E-banking suggest that the most important benefit of E-banking is (to the tune of 84.0 per cent respondents) that it
saves time. The other major benefits of E-baking are: it is economical as viewed by 70.9 per cent of the respondents, accurate as opined by 60.7 per cent of the respondents, and easily accessible as viewed by 58.5 per cent of the respondents. Only 46.2 per cent of the respondents felt that E-banking is also safe. Some respondents observed that any time availability, no queuing up and so forth are the other benefits of E-banking.

### 6.1.15 Problems Encountered

The major problem encountered by 62.2 per cent of the respondents is non availability of E-banking services especially in the rural and semi-urban areas. The other major problem as opined by 26.2 per cent of the respondents is insecurity, 20 per cent of the respondents consider it as complicated and 16.8 per cent of the respondents consider it as inconvenient. A few others have complained non receipt of cash, out of service problem with ATMs and connectivity problem as some other problems that they have encountered.

### PART- B : EMPLOYEES’ PERSPECTIVE

#### 6.2 Employees’ Views

The major findings of the study of the responses collected from 110 employee respondents have been presented henceforth.

#### 6.2.1 Impact of Technology

Of the 110 respondents, 92.7 per cent considered that the customer-employee relationship has improved during the ICT era. Regarding the impact on
product diversification with the introduction ICT, the level of agreement of the respondents was 4.11 ± 0.668 which shows that the employees strongly agree with the statement that the ICT has enabled the banks to provide a variety of products.

As regards the issue of the branch providing ICT products all the respondents answered affirmatively and the branches where they are working are providing E-banking facilities, which also mean that branches in all regions are providing E-banking facilities and all the respondents are the users of ICT products. Assessment of the possibility of complete virtualisation has been done on the basis of the mean score, where it is assumed that if the mean score is equal to 3 the respondents are neutral, if the mean score is less than 3 they disagree and if the mean score is greater than 3 they agree. The level of agreement of the respondents to the question on virtualisation in the banking sector has been 2.87 ± 0.996 which shows that the respondents do not agree with the statement that the ICT will completely replace the present branch structure.

As far as the customers’ co-operation to the banks during ICT era is concerned, 84.5 per cent of the respondents opined positively, 12.7 per cent respondents remained neutral and only 2.7 per cent answered negatively.

6.2.2 Impact of Technology on Customers’ Visit to Bank Branches

As high as 79.1 per cent of the respondents have agreed to the statement that the ICT delivery channels have resulted in the reduction in the customer’s visit to branches. The assessment of the responses to the question on the reduction of customer visit has been done on the basis of mean score. As far as the
withdrawal is concerned it is found that there is a reduction of the branch transactions to the extent of 51.30 ± 20.18 percentage points. With regard to deposit it is found that there is a reduction in in-branch transactions to the extent of 29.71 ± 16.97 percentage points. In the case of balance enquiry it is found that there is a reduction at the branch enquiry to the extent of 61.79 ± 25.69 percentage points. In the case of inter-bank funds transfer the reduction was about 49.54 ± 25.49 percentage points. In the case of availing demand drafts it is observed that the reduction is about 41.76 ± 24.98 percentage points. Yet another area where technology has positively impacted was cheque transactions. It is observed that the reduction of cheque transactions is of the order of 38.63 ± 19.23 percentage points. In case of other transactions like loan enquiry, cheque book request, statement request and so on the reduction was of the order of 25.17 ± 17.35 percentage points.

Factor analysis was made for the factors causing reduction in customer visit to the branches resulted with 2 factors, factor 1 with a variance of 32.07 per cent and factor 2 with a variance of 20.1 per cent. Factor 1 is a primary factor which includes withdrawal with a factor loading 0.548, balance enquiry with a factor loading 0.846, funds transfer with a factor loading 0.742 and cheque transactions with a factor loading 0.763. These components together are available without the assistance of the staff (non-teller services) which is a major factor responsible for the reduction in customer visits to the branch. Factor 2, which is a secondary factor, includes depositing with a factor loading 0.640, demand drafts with a factor loading 0.709 and other transactions with a factor loading 0.437. This component is mostly teller based services utilised even after the introduction of ICT and is a
secondary factor in the reduction of customers visits to the branches. So non-teller based services is a primary factor and teller based services is a secondary factor responsible for the reduction in the customer visit to bank branches.

6.2.3 Issues Related to Training

Of the total employee respondents 90.9 per cent felt that the banks provide enough training required in handling the existing and updated ICT delivery channels, whereas, a meagre 9.1 per cent felt that the banks are not providing enough training to the employees. Further, of the total respondents, 61.8 per cent has opined that the banks are providing training frequently and 37.3 per cent has opined that the frequency of training is less. Among the respondents 71.8 per cent has opined that the quality and adequacy of training provided is good and 21.8 per cent opined it as very good.

6.2.4 Impact of ICT on Maintenance of Records and Work Pressure

It is commonly believed that the ICT has reduced the ledger and other book maintenance work. The analysis of the responses to the issue of impact of the ICT on maintenance of records showed that the ICT has reduced the burden of maintenance of records according to 90.9 per cent respondents. The level of agreement to the statement that the ICT has a positive impact on work pressure has been $3.98 \pm 0.908$ which shows that the respondents agree with the statement.

6.2.5 Customers’ Acceptance of E-banking Services

The responses to the question on access to the various E-banking services by the respondents show that the ATM, Mobile Banking, Internet Banking, EFT services and MICR/CTS are being accessed by the customers of their branches;
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80 per cent of the respondents said that Credit/Smart Cards are accessed by them and 51 per cent of the respondents said that Tele-Banking facility of the branch where they are working is accessed by the customers.

6.2.6 Quality of E-banking Services

According to the employee respondents of the public sector banks the E-banking quality of service is 3.72 ± 0.718, which shows that the quality of service is good. According to the respondents of the old private sector banks the E-banking quality of service is 3.99 ± 0.684, which shows that the quality of service is good. According to the respondents of the new private sector banks the E-banking quality of service is 3.89 ± 0.86, which is a positive result.

6.2.7 Impact on Transaction Time

In the case of encashment of cheques the time taken was 17.29± 12.51 minutes in the public sector banks and 15.12± 6.94 in the old private sector banks in the pre ICT period and in the post ICT period it is found at 6.22± 3.68 minutes in the public sector banks and 5.71± 2.70 minutes in the old private sector banks. Similarly, for depositing it was 15.31± 6.56 minutes in the public sector banks and 15.48± 6.88 minutes in the old private sector banks in the pre ICT period and 5.84± 3.25 and 7.31±4.17 minutes during the post ICT period respectively. In the case of pass book entry the time taken was 13.78± 7.77 and 17.14± 13.67 minutes during the pre-ICT period and it is 4.07± 2.81 and 4.4± 3.34 minutes during the post-ICT period for the two categories of banks. In the case of day-end balancing the time taken was 90.53 ± 50.26 and 72.9 ± 34.96 minutes during the pre ICT
period and it is $15.04 \pm 25.04$ and $8.05 \pm 6.02$ in the post ICT period for the two categories of banks. As the new private sector banks started their operations with ICT the classification of pre-ICT and post-ICT is not applicable to them.

6.2.8 Employee Satisfaction

Assessment of the level of satisfaction of the employees regarding ICT delivery channels has been done on the basis of mean score, where if the mean score is equal to 3 they are assumed to be neutral, if mean score is less than 3 they are assumed as not satisfied and if mean score is greater than 3, they are assumed as satisfied. Further, if the mean score is greater than 4 they are assumed to be highly satisfied. The level of satisfaction of the employees towards ICT delivery channels which is $4.33 \pm 0.743$ shows that they are highly satisfied. In the case of public sector banks the level of satisfaction is found $4.47 \pm 0.815$, which shows that the employees of the public sector banks are highly satisfied, and the level of satisfaction of the employees of the old private sector banks is $4.43 \pm 0.737$, which also shows that the employees of the old private sector banks are highly satisfied. The level of satisfaction of the employees of new private sector banks is $3.87 \pm 0.344$ showing that they are plainly satisfied. The level of satisfaction has been more in the case of the public sector banks followed by the old private sector banks and the new private sector banks. The hypothesis, that, **the employees in the banks are satisfied with the ICT adoption in the banks** is tested, proved and accepted.
6.2.9 Branchless Banking

In the total sample of 110, 39 respondents of the public sector bank and 8 respondents of the old private sector bank agreed that their banks provide branchless banking. All the 23 respondents of the new private sector bank and 34 respondents of the old private sector bank said that the bank does not have the system or they are not aware of the bank providing such facilities, therefore the responses of only 47 respondents have been taken for further analysis.

The usefulness of the branchless banking which is $3.87 \pm 0.679$ shows that the branchless banking is useful. The respondents of the public sector banks consider it useful as the mean score is $3.92 \pm 0.580$ and the respondents of the old private sector banks also consider it as useful as mean score is $3.63 \pm 1.061$. The possibility of replacement of the branches by branchless banking which is $2.47 \pm 0.679$ shows that the respondents do not anticipate the possibility of replacement of branches by branchless banking model.

6.2.10 Benefits of ICT

Minimisation of the transaction cost is an important benefit of E-banking according to 94.5 per cent of respondents and availability of accurate information (97.3 per cent), increase in efficiency (94.5 per cent), reduction in labour requirement (94.5 per cent), time saving (98.2 per cent), and increase in service quality (97.3 per cent) are the other benefits of ICT introduction.

Factor analysis made resulted with two factors, factor 1 with the variance of 35.09 and factor 2 with a variance of 32.61. Factor 1 is primary factors which
include accurate information with a factor loading 0.729, increased efficiency with a factor loading of 0.848 and increased service quality with a factor loading of 0.795. These factors were together called customer centred benefits. Factor 2, which is secondary factor which include minimisation of transaction cost with a factor loading 0.57, reduced labour requirement with a factor loading 0.833 and time saving in doing a work with a factor loading 0.901, is a bank centred benefit. So the customer centred benefit is a primary factor and bank centred benefit is a secondary factor from ICT services. The benefits of E-banking have made it a major business proposition for the banks and also an area of tough competition.

6.2.11 Problems Encountered

Among the employees interviewed about 58.2 per cent considers chances of data loss, 78.2 per cent considers chances of cyber crimes, 70.9 per cent considers high initial cost of technology, 71.8 per cent considers rigorous training requirement, 69.1 per cent feels insufficient knowledge in handling ICT and 65.5 per cent considers lack of information security as the major issues to be addressed in respect of adoption of ICT in banking development.

Factor analysis resulted with 1 factor with the variance of 56.14 and the factor includes chances of data loss with a factor loading of 0.621, chances of cyber crime with a factor loading of 0.735, high initial cost of technology with a factor loading of 0.762, rigorous training requirement with a factor loading of 0.793, insufficient knowledge in handling ICT with a factor loading of 0.768 and lack of information security with a factor loading of 0.801. These factors are together called bank centred problems. The problems of E-banking have made it a
major concern for the banks and also an area that needs more careful supervision and tight security.

6.2.12 Employees' Preferred Delivery Channel

Among the total respondents, a high of 91.8 per cent opined E-banking as a better alternative and only 8.2 per cent consider traditional banking to be better.

6.3 Suggestions for Improvement

Following suggestions may be made on the basis of the general findings of the study.

6.3.1 Operational Improvement

The experiences of the stakeholders in the operation of the E-banking services determine the future prospects of such channels. The banks, therefore, need to ensure better banking experience in the E-banking mode. The following suggestions have been made to improve the operational plane of the technoproducts.

6.3.2 Improvement of ATMs

i. **Installing Swipe Type Machines:** Sometimes the card inserting type of machines capture the cards, causing difficulties to the customers. Therefore, it is suggested to switch over the card inserting type of ATM machines to the swiping type of machines so that the customers' may be free of the above difficulty.
ii. **Widening the Geographical Spread:** Many respondents complained regarding the non-availability of ATMs especially in the small towns and rural areas. Therefore, there is a need to expand the network of ATMs especially in rural areas and mobile ATMs may be pressed into service to overcome the problem of minimum hits required in such areas.

iii. **Prompt Services:** The problems such as non-operational ATMs, non-availability of cash especially during continued holidays, power failure, network failure and others need to be addressed as well ensuring promptness in providing services always.

iv. **Transaction Slips:** It may also be suggested that the transaction slips may be made available only to the needy persons to save paper at the ATMs and also to keep the premises clean and tidy.

v. **Failed transactions:** Sometimes without delivering cash the accounts are debited in ATM transactions. Such debits take a long time for retrieval and that too only after the customer registers complaints at the concerned branches. Therefore, an auto retrieval of such debits will certainly have a positive impact on the customers' satisfaction.

vi. **Enhance Withdrawal Limit:** Presently some of the banks are allowing withdrawals of a maximum of Rs. 15000/ per day. Thus, many a time the ATMs are used only for withdrawing small amounts and therefore, it may be suggested that to make the ATMs more useful, the withdrawal limits need to be enhanced.
6.3.3 Improvement of Other Channels

i. **Technology Upgradation**: The technology may be constantly upgraded to make it user-friendly with strong security measures to provide an integrated service provision on a single sign on. Enable mobile banking services on all types of mobile devices. Further, the fund transfer facility between the banks needs to be improved.

ii. **Consultancy Services**: Personalised consultancy may be helpful especially at the beginning of the use of E-banking services and frequently for the senior citizens and less educated class of customers for safe use and for availing it for a variety of purposes. An effective marketing strategy may be adopted for the same.

iii. **Second Factor Authentication**: In the course of this study, many a respondents have expressed their apprehension regarding the danger of lost cards as the cards can be used by the founder in the retail shops as the PIN entry is not needed. Therefore, it is suggested to make PIN entry mandatory in the retail shops also.

iv. **Authentication**: Auto-generation of password for every E-banking transaction ensures higher confidence in the minds of the customers. If biometric authentication is made use of for all delivery channels, all forms of cyber crimes may be avoided.
6.3.4 Publicity Measures

i. **Publicity Drives**: Wide publicity may be given to the customers in using E-banking facilities through appropriate media and organising awareness camps in the banks and the employees are further expected to take more interest in such activities. A separate wing may be set up in the banks to identify the customers who are willing to accept technology and train such customers in using E-banking facilities on a regular basis.

ii. **Encourage Mobile Banking**: The use of Mobile Banking need to be encouraged as the facility can be accessed by any mobile set owner. Since mobile phones have penetrated even into the rural areas mobile banking could be a win win situation for both the banks and the customers alike.

6.3.5 Policy Measures

i. **Uniformity of ATMs**: The Indian Banks' Association may take up the responsibility of standardization of ATMs to remove the problems of diversity in the ATM machines of different banks, standardized messaging and other technology solutions.

ii. **Transaction Summary on Missed Call**: The facility of providing mini statement of accounts on a missed call to a particular number is available in some banks. Such facility may be extended to all banks to reduce enquiry services in the bank counters.

iii. **Installation of CC TVs**: Closed Circuit TVs may be installed in all the ATMs for closer monitoring and security and also the security personnel may
be trained as per the banking requirements. Appointment of security personnel may be made mandatory at all the ATM outlets.

iv. **Deposits through ATMs**: Direct deposit into the customers' account through ATMs will certainly benefit the banks.

v. **Charge-free Transactions**: Unlimited charge-free transactions at the ATMs of all the banks will help the customers a long way.

vi. **Transaction Summary**: Message alerts may be made available on mobiles for all banking transactions in a standardised format.

vii. **Mandatory use of Debit Cards**: Use of debit cards may be made mandatory for transactions above a particular limit prescribed by the RBI.

### 6.4 Areas for further Research

Based on the findings of the present study certain broad areas for further research may also be suggested. The major areas which can be explored may be of:

1. Study on the awareness and acceptance of ATMs for different purposes and the satisfaction on each of the purposes.

2. Comparative study on Debit Cards, Credit Cards and Smart Cards regarding the usage pattern, problems encountered and satisfaction levels.

3. Comparative study of ICT in Urban Co-operative Banks (UCBs) and Commercial Banks.

4. Study on awareness and acceptance of mobile banking by the customers.

5. A study on the Tele-Banking awareness and acceptance for different purposes and the satisfaction in using the facility may be taken up.
6.5 Concluding Remarks

The banking sector reforms have created opportunities for the banks to move away from the confines of their branches to deliver the services to the customers through ICT products. Starting from advanced ledger posting machines the banks now have reached a level of networked branches and are under CBS systems. The CBS system has enabled the banks to provide anywhere and anytime banking. This study strongly recommends a widening of the technology base as it has the power to reach the unreached at a cost effective manner and also the banks will in turn benefit from ICT adoption. A study by Stella MI (2010) entitled 'Evaluation of the Impact of Information and Communication Technology on Banking Efficiency Using Transcendental Logarithmic Production Function and Camel Rating' also found that ICT has improved the efficiency after its adoption in Nigeria and another study of Ahmed Zakria Siam (2006) titled 'Role of Electronic Banking Services on Profits of Jordanian Banks' argued that banks will benefit greatly from providing electronic services in the long run.

The customers are in search of better banking services and the banks which are able to meet customer expectations will survive. The customers can get a better exposure to the services of different banks when they deal with other banks. From this study it has been found that 75 per cent of the respondents are transacting with more than one bank. More than 98 per cent of the respondents covered in the present study are aware of at least one of the E-banking services and products is a clear indication of the growing awareness of the banks’ services among the customers. Further, the customers and the employees of the banks are highly
satisfied with ICT adoption by the banks. The banks are now able to provide a variety of E-banking facilities. The present era belongs to technology and the future belongs to the techno-savvy banks. Therefore, the future of banking relies on effective E-banking implementation and service provisioning. Those banks which have a competitive edge will attract more customers and will compete effectively, while the laggards will wither away.

This study has brought out the fact that neither the customers nor the employees foresee a possibility of complete virtualisation of the banking services in the near future. A concerted effort by the banks may create opportunity for wider acceptance of different E-banking products by the customers. It should be remembered that the banks have been spending on technology and the outcome depends on the customer acceptance of the technology products. But the picture is not very encouraging except for ATM services. In the case of ATMs many studies, including the present one, found that the awareness, adoption and satisfaction rates are very high. Therefore, the efforts should be in the direction of wider geographical spread of ATMs and also in encouraging especially the educated and young customers to accept other forms of E-banking services as well. We may hope for the better things to happen in the near future.