CHAPTER 7

MAJOR FINDINGS AND SUGGESTED STRATEGIES

In this chapter an attempt has been made to provide empirical findings, which have emerged from the overall analysis regarding ‘customer centric automated banking services’. The study also investigated the impact of technological development on profitability and productivity performance of the banks. The effort has also been made to provide workable suggestions to public, private and foreign sector banks in this regard. These findings and suggestions are summarized there of:

To find out the effectiveness of customer centric banking practices with special reference to automated banking services, review of literature has been analyzed on different pedestal. To achieve the objectives of the study survey of users of automated banking services at periodical intervals were conducted on 750 customers were conducted with the help of a well-structured questionnaire.

7.1 Introductory Information

The study found that majority of the respondents have account in more than one bank and the main reasons behind this were ‘convenience’, ‘to obtain the automated services like ATM, debit card, internet banking, mobile banking etc.’ and ‘maximum use of automated services’. ‘Internet’, ‘Banks’, ‘television’, and ‘family, friends and relatives’ were the major sources of information and knowledge about automated banking services. Further study found that ‘ATM/debit cards’, ‘credit cards/smart cards’ and ‘internet banking’ are the major modes of automated banking services. Majority of the respondents have ‘more than 3 years’ of association period of using automated banking services provided by their respective banks. Further classification with automated banking services it has been found that majority of the customers are using ‘the automated services’ ‘between 1-3 years’ and ‘more than 3 years’. Study investigated that most of the customers are using automated banking services mainly for ‘shopping/online shopping’, ‘insurance premium payment’, ‘railways/air/any other ticket booking’ and ‘bill payment’, while they least preferred to use automated banking services for ‘stock trading’ and ‘charity/donation’.
7.2 Level of Awareness and Knowledge

It is clear from the study that customers have good level of awareness and knowledge about ‘About your bank’, ‘ATM/debit card’, ‘about automated banking services’, ‘website of bank’, ‘technology adoption level of bank’ and ‘performance of the banks’. It is also concluded that the level of awareness and knowledge about customer centric automated services are average level. The study revealed that the level of awareness and knowledge regarding their bank significantly associated with demographic variables ‘gender’, ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’.

The level of awareness and knowledge on statement namely ‘about automated banking services’ differed with ‘marital status’, ‘occupation’, ‘level of education’, ‘sector of bank’ and ‘age group’ of the respondents. The ‘websites of bank’ revealed the significant difference in level of awareness and knowledge among the respondents who belong to ‘occupation’, ‘annual income’, ‘level of education’ and ‘age group’.

The statement namely ‘credit card and smart cards’ revealed significant difference in level of awareness and knowledge among the respondents who belong to various categories of ‘marital status’, ‘occupation’, ‘sector of bank’ and ‘place of residence’. The awareness and knowledge about ‘internet banking’ have found significant variation with different demographic variables such as ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’. The statement of awareness and knowledge namely ‘mobile banking’ revealed that there was a significant difference in the opinion among the respondents belonging to different ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’. The statement ‘RTGS/EFT/NEFT/ECS facility as a mode of payment’ was highly associated with different demographic variables as ‘occupation’, ‘annual income’ and place of residence’ as awareness and knowledge about their bank and automated services are concern.

Further study revealed that the statement of awareness and knowledge namely ‘various rules and regulations’ showed significant bearing with ‘occupation’, ‘level of education’ and ‘place of residence’. The variation in level of awareness and knowledge among customers about statement namely ‘grievance handling’ was significantly associated with various characteristics of demographic variables namely ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.
The study found that ATM/debit cards, credit cards/smart cards and internet banking are more comfortable and reliable than mobile banking. Further customer showed average level of comfortability and reliability about RTGS/NEFT/Electronic Fund Transfer/ECS.

**Reasons Encourage Customers to Use Automated Banking Services**

Further the study concluded that the reasons ‘convenience’, ‘accessibility’, ‘cost effective’ and ‘more safe and secure transactions’ were encouraging reasons which motivate customers to use automated banking services, while ‘integrated facilities’, ‘informative product and services’ and ‘using automated services is status symbol’ were not able to encourage the respondents to a good extent.

The study revealed that the reason which encourages customers towards the use of automated service namely ‘cost effective’ was significantly associated with ‘level of education’ and ‘place of residence’. The encouraging reason namely ‘convenience’ revealed the significant difference among the respondents belong to different ‘annual income’, ‘level of education’ and ‘place of residence’.

Further the reason ‘accessibility’ belong to different groups of ‘marital status’, ‘annual income’, ‘age group’, ‘level of education’ and ‘place of residence’. The opinion of respondents about reason ‘more safe and secure transactions’ reflected significant variation among the respondents who belong to different categories of ‘occupation’, ‘annual income’, ‘level of education’ ‘sector of bank’ and ‘place of residence’. The motivating reason ‘any time any where banking’ showed a significant variation with various characteristics of ‘occupation’, ‘level of education’ and ‘place of residence’.

The study analyzed that the reason ‘updated information’ has a significant variation with ‘marital status’, ‘occupation’, ‘level of education’ and ‘place of residence’.

Further reason namely ‘intimation and information on time’ showed significant variation with different groups of ‘marital status’, ‘level of education’ and ‘place of residence’, while the reason ‘no queuing’ showed a significant difference with different ‘annual income’, ‘sector of bank’, ‘place of residence’ and ‘annual income’.

**Problems While Using Automated Banking Services**

The study implies that majority of the respondents have faced various problems while using automated banking services. The major problems were ‘connectivity problems’, ‘inadequate
knowledge’, ‘poor network’ and ‘time consuming’ as analyzed from the survey. On the other hand respondents faced problems namely ‘hanging websites’, ‘lack of infrastructure’ and ‘un-updated websites’ up to a little extent.

The study has analyzed that the problem namely ‘connectivity problems’ significantly differ among the respondents who belong to different ‘occupation’, ‘annual income’ ‘age group’ and ‘place of residence’. The opinion of the respondents about the problem namely ‘time consuming’ was significantly associated with ‘occupation’, ‘sector of bank’ and ‘place of residence’, whereas the problem namely ‘high banking charges using automated services’ showed a significant variation with ‘marital status’ and ‘annual income’.

The study revealed that the problem namely ‘lack of infrastructure’ and ‘un-updated websites’ differ significantly with different ‘marital status’. The opinion of the respondents on problem namely ‘in-efficient services’ is bearing a significant variation with ‘annual income’, ‘level of education’ and ‘place of residence’. The opinion of the respondents about ‘security problems’ evident a significant difference with ‘occupation’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.

7.3 ATM

Specialized Services/Transactions While Using ATM/Debit Card

The analysis related to usage of ATM services reflected that ‘fast cash withdrawal’ is ‘view account balance and mini statement’, ‘pay your utility bills’, ‘railway/air ticket/other ticket bookings’ and ‘transfer funds between your own and other accounts’ are frequently used services of ATM/debit card. While ‘fuelling up your vehicle’, ‘recharge your prepaid mobile card’ and ‘payment of donation/charity/debit card’ were the rarely used services of ATM/debit cards.

The study evident that the customers have different opinions about the transaction ‘cash deposit’ who belongs to various groups of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’, whereas ATM/debit card transaction namely ‘cheque deposit’ have significant difference across ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’. The opinion of the respondents about the transaction namely ‘fast cash withdrawals’ have showed significant variation among respondents who belong to different ‘place of residence’. While the opinion of respondents on service/transaction namely ‘view account balance and mini statements’ have shown significant difference with ‘marital status’, ‘occupation’ and ‘place of residence’.
The observation of the respondents on ATM/debit card service transaction namely ‘pay your utility bills’ differed significantly with ‘marital status’, ‘occupation’, ‘annual income’ and ‘age group’ of the respondents. Whereas the opinion of the respondents about ‘fuelling up your vehicle’ reflected the significant variation with ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’. The study reflected significant results that transaction namely ‘railway/air ticket/other ticket bookings’ and ‘tax payments’ have significant variation with ‘marital status’, ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’ of the respondents.

**Encouraging Reasons to Use ATM/Debit Card**

The study concluded that ‘it is easy to use’, ‘payment through ATM is safe and secure’, ‘cash depositing scheme is also available’ and ‘promptness of the delivery of debit card’ were important reasons which encouraged to use of customer centric automated services. The encouraging reasons of ATM/debit card namely ‘it is a free service from the bank’ and ‘reduces the risk of cash loss’ has attained similar importance. Further respondents have similar importance regarding the reasons namely ‘ATM/debit cards are useful for making other payments’ and ‘connectivity to other banks ATMs’.

The study found that the reason ‘payment through ATM is safe and secure’ showed significant variation with ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The reason namely ‘loss of debit card can be solved without problem’ showed significant difference of importance with ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’. Further study revealed that the reason namely ‘it does not require to carry cash with you’ registered significant difference with various categories of ‘place of residence’.

The encouraging reason namely ‘provide cash balance and mini statement of transactions’ indicate significant difference of opinion as importance is concerned among the respondents who belong to various categories of ‘sector of bank’ and ‘place of residence’ and the reason namely ‘connectivity to other bank’s ATMs’ was significant with ‘marital status’, ‘annual income’, ‘level of education’ and ‘age group’ and ‘place of residence’.

**Problems while Using ATM/Debit Card**

The respondents admitted that they faced various problems like ‘machine out of order’, ‘maximum cash withdrawal limit fixed’ and ‘machine out of cash’ to large extent. ‘Debit cards
get blocked’, ‘transactions are not safe and secure’ and ‘transaction, statement printing is damaged’ were also problematic issues while using ATM/debit card service. Whereas respondents agreed that while using ATM/debit card service they face ‘visibility of statement is poor’ and ‘wrong amount printing in the slip’ to a little extent. Study further revealed that respondents have similar experience about the problems namely ‘remembering PIN number of debit card is highly inconvenient’ and ‘risk of hack of cash at the withdrawal time’.

Study revealed that problem faced by respondents while using ATM/debit card ‘debit cards get blocked’ showed significant difference in responses with various categories of ‘occupation’, ‘sector of bank’ and ‘place of residence’. Further study found that problem namely ‘visibility of statement is poor’ registered significant difference with various groups of ‘occupation’ and ‘place of residence’.

The extent of problem of the respondents about ‘balance reduce without cash receipt’ found significantly different among the respondents who belong to different categories of ‘gender’, ‘marital status’, ‘occupation’ and ‘place of residence’. The variation of opinion among the respondents about the problem namely ‘difficulty in cash depositing in ATM machine’ were found significantly different with ‘gender’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’.

**Level of Satisfaction through ATM/Debit Card**

The study revealed that the respondents were satisfied by the various aspects of ATM/debit card such as ‘promptness of the delivery’, ‘location aspect of ATMs’, ‘privacy’ and ‘working/performance of the ATMs’. On the other hand satisfaction from ‘customer care facility given’, ‘safety, security and accuracy’ and ‘grievance handling’ were comparatively low.

The study revealed that statement of satisfaction through ATM/debit card ‘promptness of the delivery’ showed significant difference in level of satisfaction with different characteristics of ‘occupation’, ‘annual income’, ‘level of education’ ‘sector of bank’ and ‘age group’.

The study demonstrated that statement ‘privacy’ registered significant variation with ‘level of education’ and ‘sector of bank’. The study revealed that the statement of satisfaction namely ‘network connectivity’ has significant relation with ‘occupation’ and ‘age group’. The study reflected that respondents who belong to different ‘place of residence’ are significantly differ in case of ‘safety, security and accuracy’. Further statement of satisfaction namely ‘grievance handling’ differ significantly with various groups of ‘gender’, ‘occupation’ and ‘place of residence’. 
residence’. The level of the satisfaction differ significantly on ‘online shopping facility by debit card’ among the respondents who belong to different ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘age group’.

### 7.4 Credit Card

**Specialized Services/Transactions by Using Credit Card**

The transactions namely ‘shopping online’, ‘pay your utility bills’ and ‘fuelling up your vehicle’ were major transactions services which were preferred by respondents through credit card service, whereas transactions like ‘railway/air ticket/other tickets bookings’, ‘shopping at merchant establishment/expenses’ and ‘insurance, mutual funds and stock broking transactions’ were also performed by customers through credit card. On the other hand credit card transactions namely ‘recharge your prepaid mobile card’ and ‘payment of donation/charity’ were least preferred by customers.

The study has analyzed that credit card transactions namely ‘pay your utility bills’ and ‘repayment of loan EMI’s’ has shown a significant difference of usage with various characteristics of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’.

Further the study analyzed that the transactions namely ‘shopping online’ and ‘shopping at merchant establishment expenses’ registered a significant variation with ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The study found that credit card transactions namely ‘fuelling up your vehicle’ and ‘insurance, mutual fund and stock broking transactions’ differ significantly across ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’ of the respondents, whereas the variation of the respondents about ‘railway/air ticket/other ticket bookings’ were significant among the respondents who belong to different groups of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’, ‘place of residence’.

**Reasons Encourage Customers to Use Credit Card Services**

The study found that ‘security check are sufficiently available’ was the most important reasons which encourage respondents for the use of credit card. The reasons ‘it is easier for me to buy’, ‘credit limit fixed by the banker is adequate’, ‘it does not require carrying cash in person’ and ‘I can do shopping easily’ are also important reasons. Similarly respondents have similar level of
encouragement by reasons ‘periodical statement is provided by the banker’ and ‘owing a credit card is a status symbol’. On the other hand, customers are not encouraged by reasons namely ‘credit card is useful for making all payments’ and ‘interest charge for delayed payments is reasonable’.

Further study revealed that encouraging reasons namely ‘security check are sufficiently available’ and ‘it is easier for me to buy’ differ significantly with various categories of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’, whereas ‘credit limit fixed by the banker is adequate’ and ‘periodical statement is provided by the banker’ showed significant difference of opinion with ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’. The opinion of the consumers about ‘interest charge for delayed payments is reasonable’ showed a significant variation with ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’. Further study showed that reasons namely ‘purchase though credit card is much cheaper’ and ‘I frequently require to travel’ have significant variation with ‘annual income’ and ‘level of education’ and ‘sector of bank’. Further study analyzed that the reason namely ‘I can do shopping easily’ found significant with various groups of ‘occupation’, ‘annual income’, ‘age group’, ‘sector of bank’ and ‘place of residence’.

**Problems While Using Credit Card**

The study found that respondents face problem like ‘inadequate information’, ‘inadequate knowledge’ and ‘interest charges on dues are comparatively higher’ to a large extent, whereas problems i.e. ‘credit card can be misused’ and ‘not acceptable by small vendors’ are also the problems while using credit cards. On the other hand problems of ‘getting a credit card is much difficult’ and ‘credit limit is not sufficient’ are faced by the respondents to a little extent.

Study found that different ‘gender’ group of the respondents has significant difference of opinion with the credit card problem namely ‘inadequate information’. Whereas the differences in opinion of the respondents about problem ‘inadequate knowledge’ differs significantly with ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. Further study revealed that the problem while using credit card namely ‘interest charges on dues are comparatively higher’ differed significantly with different categories of ‘marital status’, ‘occupation’ and ‘annual income’.
The study found that credit card problem namely ‘not acceptable by small vendors’ have significant difference among respondents who belong to different ‘annual income’, whereas the study revealed that opinion of the respondents differ significantly on ‘connectivity and networking failure’ with ‘occupation’, ‘annual income’ and ‘level of education’. The study analyzed that problem ‘security and privacy problem’ differ significantly with different groups of ‘gender’ and ‘level of education’.

**Level of Satisfaction through Credit Card**

The study found that respondents are satisfied by ‘promptness of delivery’, ‘information provided to you while purchasing credit card’ and ‘usefulness of credit card’ as credit card are concerned. Further satisfaction level regarding ‘online shopping facility by credit card’, ‘statement of transaction’ and ‘safety, security and accuracy’ are also noticeable. On the other hand respondents have comparatively less level of satisfaction about ‘risk of loosing/theft/missing’, ‘withdraw of cash’, ‘credit worthiness’ and ‘grievance handling’.


As far as level of satisfaction through credit card service are concerned, the level of satisfaction of respondents on statement namely ‘rate of interest charged’ differ significantly with ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’. It is also observed that level of satisfaction about ‘periodic statements’ showed significant difference in level of satisfaction with ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’.

The statement ‘safety, security and accuracy’ reflected that satisfaction level of the respondents differ significantly with ‘occupation’, ‘annual income’ and ‘level of education’. Study further analyzed that statement namely ‘online shopping facility by credit card’ showed significant
variation in the level of satisfaction among respondents who belong to various categories of ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’.

7.5 Internet Banking

Banking Queries by Using Internet Banking

The study revealed that internet banking query namely ‘view account balance and statement’, ‘email support’, ‘inquire about cheque status’, ‘change user ID and password’, ‘update your profile’ and ‘subscribe for mobile banking/ATM/debit cards’ are the major queries which were preferred by respondents, whereas queries i.e. ‘ask for a statement/cheque book’, ‘see your Demat account’ and ‘inquire about your TDS details’ were least preferred services by customers through internet banking.

Study revealed that the internet banking queries namely ‘view account balance and statements’ and ‘update your profile’ showed significant difference of opinion among respondents belonging with different groups of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’, whereas the query ‘inquire about cheque status’ is significantly affected by the perception of the respondents associated with ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’.

It is evident from the study that internet banking query i.e. ‘request stop payment on a cheque’ showed significant difference among the respondents who belong to ‘gender’, ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The study further revealed the significant association between various groups of ‘gender’, ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’ and statement of query through internet banking namely ‘change user ID and password’.

Banking Transactions through Internet Banking

The study found that ‘transfer funds between your accounts’, ‘shop online’, ‘transfer funds to a third party’, ‘pay utility bills’, ‘pay credit card dues’ and ‘prepaid mobile recharge’ are major transaction services which were preferred by the respondents through internet banking, whereas internet banking transactions i.e. ‘create/renew fixed/ recurring deposits online’ and ‘online demand draft and pay order’ were least preferred by customers.

Study analyzed that opinion of the respondents about internet banking transaction namely ‘transfer funds between your accounts’ explore significant relation with various categories of
‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’, whereas the variation of the respondents about the transaction namely ‘transfer funds to a third party’ showed significant variation of opinion in respect to different groups of ‘gender’, ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’.


Further, study revealed that the transaction ‘shop online’ and ‘create/renew fixed/recurring deposits online’ have showed significant difference of opinion among respondents who belong to different ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The significant difference in the usage of transactions namely ‘pay credit card dues’ and ‘prepaid mobile recharge’ differ significantly across ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.

**Reasons Encouraging to Use Internet Banking Service**

As far as the various reasons encouraging customers to use internet banking are concerned, the study found that ‘IB is more convenient than branch banking’ is the most important reason for the usage of internet banking, followed by ‘IB transactions can be done faster than branch banking’, ‘IB is more reliable and safer than branch banking’, ‘No queuing’, ‘IB provide anytime anywhere banking’ and ‘provide SMS and e-mail support’. On the other hand, reasons like ‘using of internet banking is status symbol’, ‘complete information on website’ and ‘internet banking charges are reasonable (Cheap)’ were comparatively least important for the customers.

Further the study found that the reasons namely ‘IB is more convenient than branch banking’ and ‘IB is more reliable and safer than branch banking’ differ significantly with different categories of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’, while reason namely ‘IB transaction can be done faster than branch banking’ showed significant difference with different groups of ‘gender’, ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’.

Study analyzed that the encouraging reasons of internet banking namely ‘IB provide anytime anywhere banking’ and ‘no queuing’ have the significant variation in the opinion with different groups of ‘gender’, ‘occupation’, ‘annual income’ and ‘place of residence’. Further reason i.e. ‘complete information on website’ have registered the significant difference with various
categories of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of the bank’, ‘age group’ and ‘place of residence’. Similarly the variation of the respondents about the reason i.e. ‘privacy and safety is good’ were found significant difference with ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’ of the respondents.

Various Problems While Using Internet Banking

The study revealed that while using internet banking respondents have faced problems namely ‘it take a lot of time to complete the transaction’, ‘possibility of making fraud’ and ‘connectivity problem’ up to a large extent. Similarly problems i.e. ‘un-updated information on net’, ‘hacking of password’, ‘transactions are based on internet quality’ and ‘remembering user ID and password’ are also the problems faced by users to a little extent.

Study revealed that problems in using internet banking namely ‘it takes lot of time to complete the transaction’ and ‘connectivity problem’ revealed significant difference of occurrence with ‘occupation’ and ‘place of residence’. Further, study revealed that occurrence of problem ‘un-updated information on net’ significantly differs with different categories of ‘occupation’, while problem ‘high banking charges’ differs with different groups of ‘marital status’, ‘occupation’, ‘sector of the bank’ and ‘place of residence’. Study analyzed that internet banking problem namely ‘websites of the banks crash’ differs among the respondents who belong to different groups of ‘occupation’, ‘annual income’ and ‘age group’.

Level of Satisfaction through Internet Banking

As far as satisfaction level through internet banking services are concerned the study found that internet banking users are satisfied by ‘speed of login of your account’, ‘information provided by website’, ‘functioning of internet banking’ and ‘confirmation of transaction’, while respondents are equally satisfied by ‘updation policy and notice statement’ and ‘language and information’. Study showed that the statement of satisfaction namely ‘information and intimation on transaction’ gives less satisfaction to customers.

Study revealed that the customers satisfaction by internet banking namely ‘speed of login of your account’ and ‘information provided by website’ has significant association with different groups of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. Whereas the statements of satisfaction namely ‘updation, policy and notice statement’ and ‘confirmation of transaction’ differ significantly with various characteristics of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.

7.6 Mobile Banking

Banking Queries by Using Mobile Banking

The study revealed that mobile banking queries namely ‘review account balance’, ‘branch and ATM location’, ‘e-mail support’, ‘apply for loan and mortgages’, ‘credit card bill due date’ and ‘stock market update and statement’ are the major queries which are frequently preferred by customers. On the other hand, the mobile banking queries which were least preferred by the customers are ‘inquire about your fixed deposit’, ‘inquire about your TDS details’ and ‘mini statement’.

The study found that the perception of respondents on mobile banking queries namely ‘review account balance’ and ‘mini statement’ differed significantly with different ‘place of residence’.

Further, study analyzed that the query namely ‘status of cheque’ was strongly associated with various groups of ‘occupation’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.

Further, study analyzed that query namely ‘credit card bill due date’ differ significantly with various categories of ‘occupation’, ‘sector of bank’, and ‘place of residence’. It is revealed from the study that query namely ‘stock market update and statement’ showed significant difference with different groups of ‘occupation’ and ‘place of residence’. The query namely ‘inquire about your fixed deposit’ have significant difference of opinion among respondents who belong to different ‘occupation’, ‘sector of bank’ and ‘place of residence’. Further, the study described the customer’s observation about mobile banking query namely ‘inquire about your TDS details’ display wide variation between different categories of ‘marital status’, ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The opinion of respondents have variation about the query namely ‘e-mail support’ with different groups of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’.
Various Transactions by Using Mobile Banking

The study analyzed that transactions through internet banking namely ‘order a cheque book’, ‘transfer funds between your accounts’, ‘insurance premium payment’, ‘pay your utility bills’ and ‘shop online’ are major mobile banking transaction services which are preferred by respondents. On the other hand the mobile banking transactions for ‘pay credit card dues’ and ‘withdrawal at banking agent’ are least preferred by customers.

Further the study analyzed that the transaction through mobile banking namely ‘transfer funds between your accounts’ showed significant difference in observation among respondents who belong to different categories of ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’. The mobile banking transactions namely ‘transfer funds to a third party’ and ‘tax payments’ differ significantly with different categories of ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’. The association of the respondents about transaction i.e. ‘order a cheque book’ differ significantly across various categories of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. Further, transaction namely ‘shop online’ registered significant difference of observation between different groups of ‘gender’, ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’. The opinion of the respondents about transactions ‘withdrawal at banking agent’ and ‘insurance premium payment’ have different pools of opinions who belong to different ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’.

Reasons Encourage Customer to Use Mobile Banking Services

The study explored that ‘faster transaction’ is the most encouraging reason which motivate customers for the use of mobile banking automated service. Customers feel encouraged and use mobile banking services because of ‘ease to use and convenient’, ‘safety and reliability’, ‘anytime anywhere banking’ and ‘no need to carry cash’. On the other hand reasons which encourage customers’ namely ‘no hidden cost and cost effectiveness’ and ‘using of mobile banking is a status symbol’ are comparatively less important factor which encourage them to use this service.

Further, study analyzed that encouraging reason for ‘ease to use and convenient’ showed significant variation across various groups of ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’, whereas the encouraging reason namely ‘safety and
reliability’ showed a wide variation of opinion among various demographic variables such as ‘marital status’, ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘age group’, ‘place of residence’. Further encouraging reason namely ‘faster transaction’ analyzed that respondents associated with various categories of ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’ have significant variation of opinion among respondents. The reason namely ‘anytime anywhere banking’ have registered significant variation of the opinion with different demographic variables such as ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’, while reason ‘no queuing’ significantly differ across different characteristics of ‘marital status’, ‘occupation’, ‘age group’ and ‘place of residence’, whereas encouraging reason ‘no need to carry cash’ have registered significant difference with ‘occupation’ and ‘level of education’. Study analyzed the significant difference of opinion regarding the reason ‘wide area network’ with different ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘age group’ and ‘place of residence’.

**Various Problems While Using Mobile Banking Services**

As far as various problems faced by mobile banking users are concerned, the study found that they have faced problems namely ‘signal failure and network congestions’, ‘less secure and risky transactions’, ‘small screen and keypad’, ‘it need to be expertise’, ‘un-updated information/incompatible versions of mobiles’ and ‘hanging of the websites’ to large extent. Respondents agreed that while using mobile banking they face ‘high banking charges’ and ‘it takes lot of time to complete the transactions’ to a little extent. Further the perception of the respondents about problems faced by users while using mobile banking i.e. ‘un-updating information/incompatible versions of mobiles’, ‘it need to be expertise’, ‘signal failure and network congestions’, ‘it takes lot of time to complete the transaction’ and ‘small screen and keypad’ differ significantly with various groups of ‘occupation’ and ‘place of residence’. Further, the study analyzed that the problem namely ‘complex to use’ showed significant difference with ‘occupation’, ‘age group’ ‘place of residence’, while mobile banking problem namely ‘high banking charges’ had shown significant relation with only different ‘occupation’ of the respondents. Study revealed that the mobile banking problem namely ‘indifferent behavior of staff towards problems’ have significant difference with ‘marital status’, ‘annual income’ and different groups of ‘level of education’ of respondents.
Level of Satisfaction by Mobile Banking Services

The respondents are satisfied by mobile banking automated service i.e. ‘convenience’, ‘easy access’, ‘easy to subscribe and operate’ and ‘promptness of login/access’. Further mobile banking users are satisfied by ‘quality of display/information provide to you’ and ‘multiple access points’. On the other hand the statement of satisfaction namely ‘reliability and all time availability’ and ‘mobile payments’ have shown comparatively less satisfaction level.

Study depicts that ‘convenience’ is significantly associated with different ‘gender’, ‘occupation’, ‘level of education’, ‘sector of bank’, ‘age group’ and place of residence’. The statement of satisfaction namely ‘easy to subscribe and operate’ and ‘mobile payments’ registered significant variation with different classes of ‘age group’ and ‘place of residence’. The study analyzed that satisfaction statement as ‘easy access’ is significantly associated with ‘occupation’, ‘annual income’, ‘sector of bank’, ‘age group’ and ‘place of residence’. Further study revealed that statement of satisfaction namely ‘cost effective’ differed significantly with various groups of ‘gender’, ‘occupation’, ‘annual income’, ‘sector of bank’ and ‘place of residence’.

The study reflected significant variation about statements of satisfaction namely ‘reliability and all time availability’ with attributes of ‘gender’, ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’. As far as level of satisfaction through mobile banking is concerned the statement ‘safety, security, privacy and trust’ has significant variation among respondents who belong to different ‘marital status’, ‘occupation’, ‘annual income’ and ‘level of education’, ‘age group’ and ‘place of residence’. The study also found that statement of satisfaction namely ‘updating and innovativeness’ have wide variation of perception among respondents who belong to different ‘marital status’, ‘occupation’, ‘annual income’ and ‘age group’.

7.7 NEFT/RTGS/ECS

Reasons Encourage Customers to Use NEFT/RTGS/ECS Automated Banking Services

As far as various reasons which encourage customers to use NEFT/RTGS/ECS automated banking reasons, study found that ‘quick transaction’, ‘no need to carry cash’ and ‘safety, security and reliability’ are the most important reasons, which encourage to use NEFT/RTGS/ECS automated banking service. Further, respondents are equally encouraged by the reasons ‘innovativeness and integrated services’ and ‘cost effective’. Encouraging reason ‘all account holder can operate’ is also important for customers. Consequently study reflect, that
majority of the respondents are encouraged by ‘reduce credit risk’. On the other hand, reason namely ‘can be operated through internet banking’ is comparatively less important factor which encourage them to use NEFT/RTGS/ECS automated banking.

In reference to the reason which encourage customers for the use of NEFT/RTGS/NECS automated services namely ‘innovativeness and integrated services’ differs significantly with various demographic variables as ‘occupation’, ‘annual income’, ‘level of education’ and ‘place of residence’, while reason ‘safety, security and reliability’ described significant deviation of encouragement among respondents belonging to different ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’. Further, reason namely ‘quick transaction’ have registered significant variation of the opinion with different demographic variables such as ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’.

The opinion of the respondents about encouraging reason which encourage customer to use NEFT/RTGS/NECS automated banking services namely ‘can be operated through internet banking’ differ significantly with different classes of ‘level of education’ and different ‘place of residence’, while observation of respondents about reason expressively ‘good alternative of DD and banker’s exchequer’ registered the significant variation across different characteristics of ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’.

**Problems in Using NEFT/RTGS/ECS Automated Banking Services**

The study analyzed that while using NEFT/RTGS/ECS automated banking services, respondents faced problems namely ‘RTGS holidays and delay in such announcements’, ‘lack of awareness in customers’, ‘network congestions’, ‘minimum amount of remittance is higher’ and ‘problems with leased lines, routers and modems while transmitting the messages’ to large extent. On the other hand respondents have faced problems i.e. ‘security issues problems’ and ‘reconciliation issue due to lack of uniformity in customer pass book’ to a little extent, while majority of the respondents showed similarity in their experience about the problems namely ‘fund transfer but not immediately credit to the beneficiary account’ and ‘service charges of transaction’. Further study found that opinion of the respondents about problem while using NEFT/RTGS/NECS automated services ‘RTGS holiday and delay in such announcements’ showed significant
difference among respondents who belong to different ‘gender’, ‘occupation’, ‘annual income’ and ‘place of residence’.

Further problems namely ‘lack of awareness in customers’ and ‘problems with leased lines, routers and modems while transmitting the messages’ registered significant variation with different groups of ‘gender’, ‘marital status’, ‘occupation’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’. Further, the study analyzed that the opinion of the respondents about problem ‘minimum amount of remittance is higher’ differ significantly with ‘marital status’, ‘age group’ and ‘place of residence’, whereas problem namely ‘entry of IFSC code’ investigated the significant variation with different ‘marital status’, ‘occupation’ and ‘age group’. The study revealed the opinion about problems as ‘security issues problems’ and ‘service charges of transaction’ registered significant difference among respondents who belong to ‘gender’ and different areas of residence.

**Level of Satisfaction by NEFT/RTGS/ECS Automated Banking Services**

The study observed that while using NEFT/RTGS/ECS automated banking service respondent are highly satisfied with ‘convenient and comfortable to use’. Further regarding statements of satisfaction i.e. ‘quality of transaction’, ‘information and procedure’ and ‘response of employee/assistance’, the respondents have given satisfied responses. The respondents were equally satisfied by ‘cost effectiveness/fee of transaction’ and ‘payment mechanism’. On the other hand, statements of satisfaction like ‘administrative facilities given’ and ‘grievance handling’ are comparatively providing less satisfaction. The study found that statement of customers satisfaction by NEFT/RTGS/NECS automated services ‘convenient and comfortable to use’ revealed the significant variation with ‘annual income’, ‘level of education’ and ‘place of residence’, whereas statements namely ‘information and procedure’ and ‘administrative facilities given’ have significant difference with attributes of ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’.

Moreover, the study showed that statement of satisfaction ‘quality of transaction’ registered significant difference in satisfaction of the respondents across attributes of ‘gender’, ‘occupation’, ‘annual income’, ‘level of education’, ‘sector of bank’ and ‘place of residence’, whereas statement of satisfaction namely ‘cost effectiveness/fee of transaction’ registered significant difference with ‘marital status’, ‘occupation’, ‘annual income’, ‘age group’ and ‘place of residence’. The level of satisfaction about statement namely ‘safety, security and accuracy’
registered variation in satisfaction level with various attributes of ‘annual income’, ‘level of education’, ‘sector of bank’, ‘age group’ and ‘place of residence’, whereas statement of satisfaction namely ‘reliability of transaction’ with various classes of demographic variables of ‘occupation’, ‘sector of bank’ and ‘place of residence’. Further the study observed that statement of satisfaction i.e. ‘minimum amount of remittance’ differed significantly with various attributes of ‘marital status’, ‘occupation’, ‘annual income’, ‘level of education’ and ‘sector of bank’. Similarly the level of satisfaction among respondents about statement of satisfaction namely ‘connectivity and networking system’ differed significantly with different categories of demographic variables as ‘occupation’, ‘age group’ and ‘place of residence’.

7.8 Factors that Enable the Use of Customer Centric Automated Services

The study formulated the factors which enable the use of customer centric automated services are i.e. ‘reliability’, ‘responsiveness’, ‘efficiency and customers’ comfort’, ‘convenience’, ‘accuracy’, ‘communication’, ‘informative website’, ‘technological updation’, ‘customer care’, ‘cost effective’, ‘security’ and ‘easiness’. Further the factors ‘convenience’, ‘cost effective’, ‘easiness’ and ‘Security’, are highly weighted factors enabling customer centric automated services, whereas ‘reliability’ and ‘customer care’ are the next equally important factors as rated by the respondents. On the other hand, factors ‘communication’, ‘accuracy’ and ‘responsiveness’ indicated least importance that enable the use of Automated Services. The response among male and female respondents differed significantly with the factors namely ‘convenience’ and ‘informative website’ as the factors which enable the use of customer centric automated services are concerned.

The study further concluded that married and unmarried respondent have significant difference in their perception about the factors i.e. ‘technological updation’, ‘communication’ and ‘cost effective’ and married respondents were more inclined than unmarried respondents.

Further, the study found that all factors that enable customer centric automated services displayed wide variation among the three groups of occupational respondents. The study pointed out that ‘cost effective’, ‘convenience’, ‘security’ and ‘customer care’ have emerged as highly weighted factors among various groups of ‘business’, ‘service’ and ‘professional’ respectively. The study found that the factors i.e. ‘communication’, ‘informative website’, ‘technological updation’, ‘customer care’, ‘cost effective’, and ‘security’ differed significantly with
‘occupation’, which implied that respondents occupied in business, service and professional have wide variation in their responses.

In the comparison among four groups having annual income less than 3 lakhs, 3 to 6 Lakhs, 6 Lakhs to 10 Lakhs and Above 10 Lakhs, factors differed significantly were ‘reliability’, ‘efficiency and customers’ comfort’, ‘informative website’, ‘technological updation’, ‘customer care’, ‘cost effective’, and ‘security’. Respondents belonging to ‘above 10 lakhs’ income group were more inclined towards the use of customer centric automated services than other income groups of the respondents.

The study found a noticeable relationship between education of the respondents and various factors namely ‘reliability’, ‘efficiency and customers’, comfort’, ‘convenience’, ‘communication’, ‘customer care’ and ‘security’. Further it can be analyzed from the study that post graduate respondents were comparatively more inclined towards automated services than those who have education up to senior secondary or graduation.

A comparison of public sector banks, private sector banks and foreign sector banks found that foreign sector banks’ customers were comparatively more enabled using various automated services provided by their banks. Further study showed that the factors namely ‘responsiveness’, ‘efficiency and customers’ comfort’, ‘technological updation’, ‘customer care’ and ‘cost effective’ have shown wide variation in their perception for the respondents who belong to public, private and foreign sector banks.

On analyzing the perception of different age group, it was observed that the age group of ‘18 to 25’, ‘26 to 35 years’ and ‘36 to 45 years’ as well as those who belonged to ‘46 years and above’ differed in their responses significantly on the factors of ‘accuracy’, ‘technological updation’ and ‘cost effective’. The study also found the fact that the respondents between the age group of ‘26 to 35 years’ and ‘36 to 45 years’ were consistent in their responses on all aspects of customer satisfaction.

and ‘Ambala’, which implied that respondents belonging to ‘Gurgaon’ and ‘Delhi’ gave comparatively more weightage to these factors for effective use of customer centric services.

7.9 Effectiveness of Customer Centric Banking Practices on Profitability

Business Per Employee

In terms of profitability, this study revealed that in public sector banks; Bank of Baroda and Bank of India have conceded highest business per employee (BPE), while Canara Bank also followed the suit. Surprisingly State Bank of India has less business per employee inspite of being the biggest commercial bank in India. As far as new private sector banks are concerned Yes Bank and Axis Bank business per employee were found comparatively much higher than HDFC Bank and Kotak Mahindra bank. On the other hand among old private sector banks; The South Indian Bank, The Federal Bank and The Karur Vysya Bank have higher business per employees than INGVysya Bank and The Jammu & Kashmir Bank. Further, this study concluded that among all the foreign sector banks, DBS Bank, Deutsche Bank and Citi Bank having more business per employee than Standard Chartered Bank and HSBC Bank.

It is also observed that performance of foreign sector banks is comparatively much higher than public, old private and new private sector banks as their average business per employee was found much higher.

Profit Per Employee

In terms of profit per employee the study found that Bank of Baroda, Punjab National Bank and Canara bank are the leaders gaining highest profit per employee among all the public sector Banks. Whereas in analysis of profit per employee of new private sector bank, it was found that Indusind Bank, Yes Bank and AXIS Bank are more profitable banks than ICICI Bank, HDFC Bank and Kotak Mahindra Bank. The study further concluded that The Jammu & Kashmir Bank, The Karur Vysya Bank and The Federal Bank are the Banks which earn more profit among all the old private sector banks. Similarly as far as profit per employee is concerned the study revealed that among all foreign sector banks; Deutsche Bank, DBS Bank and Citi Bank are the banks which are found relatively more profitable. Similarly the bank-wise analysis of profit per employee showed that among all the scheduled commercial banks foreign sector banks are found to be more profitable on minimum employees.
Business Per Core Banking Solution Branch (CBS)

In terms of total business study it has been found that; Bank of Baroda, Bank of India and Canara Bank are the leading banks getting more business than State Bank of India, Union Bank of India and Punjab National Bank, whereas Yes Bank, AXIS Bank and ICICI Bank have generated more business among all sampled new private sector banks. Further, the study concluded that in consideration of old private sector banks: The Jammu & Kashmir Bank, ING Vysya Bank and The KarurVysya bank have generated highest business than The Federal Bank, The South Indian Bank and Karnataka Bank. Further, this study concluded that among all foreign sector banks, Citi Bank, Deutsche Bank and HSBC Bank and DBS Bank are the banks who got comparatively more business.

Moreover, bank-wise detail of total business earned by banks depicted that among all the Indian commercial banks, foreign sector banks were found more profitable than public, old private and new private sector banks, the profitability performance of the foreign sector banks was found much better than other Indian commercial banks.

Effectiveness of Customer Centric Banking Practices on Productivity

In terms of productivity analysis, study found that from the year 2009 to 2014, IT efficiencies of the banks varied from 0.22 to 1.00. Also the average efficiency of each of the public, new private, old private and foreign sector bank for the period 2009 to 2014 varied from 0.27 to 1.0, which concluded that all the banks are not having the same level of IT efficiency.

Further, output of CCR model with output orientation, it was clear that relative efficiency score of the HDFC Bank, Kotak Mahindra Bank, Jammu and Kashmir Bank, HSBC Banks and Royal Bank of Scotland had shown continuous improvement between the years 2009 to 2014.

Results of the study revealed that in public sector banks; Bank of Baroda, Bank of India, Canara Bank and Union Bank of India are found to be relatively most efficient in IT deployment as compared to other banks, while in new private sector banks, Yes Bank was found most efficient in IT deployment as compared to other banks with weighted efficiency score. Further, this study revealed that among old Private Sector banks; The Federal Bank, The South Indian Bank, Karur Vysya Bank and Karnataka Bank were found relatively among the most efficient banks as compared to other banks, whereas in foreign sector banks; DBS Bank and Deutsche Bank also found the most efficient banks. It concluded that these banks have been deployed and used their IT resources well and thus indicated no waste of inputs.
On the other hand, State Bank of India, ICICI Bank, HDFC Bank and Kotak Mahindra Bank were found to be most inefficient, which implied that these banks do not use their IT resources well. This, study also revealed that Punjab National Bank, Axis Bank, Indusind Bank, ING Vysya Bank, The Jammu & Kashmir Bank, Citi Bank, Standard Chartered Bank, HSBC Bank and Royal Bank of Scotland are the banks which has been found moderately efficient as their efficiency scores were found in between the moderately efficient category.

Further, efficiency scores on the basis of BCC model output orientation showed that Punjab National Bank, Bank of Baroda, Bank of India, Canara Bank, Union Bank, Yes Bank, ING Vysya Bank, The Federal Bank, The Jammu & Kashmir Bank, The South Indian Bank, Karur Vysya Bank, Karnataka Bank, Citi Bank, DBS Bank, HSBC Bank, Deutsche Bank and Royal Bank of Scotland were found comparatively more efficient than other sampled banks, which implied that these banks have used their IT resources optimally, whereas on the other hand study concluded that HDFC Bank and Kotak Mahindra Bank were found less efficient banks, which implied that these banks did not use their input resources well, whereas study explored that State Bank of India, ICICI Bank, Axis Bank, Indusind Bank and Standard Chartered Bank were found moderately efficient banks.

The sector wise analysis depicted that public sector banks, old private sector banks and foreign sector banks were found more efficient than new private sector banks, whereas new private sector banks did not use their IT inputs well.

Further, the study concluded that overall average scale inefficiency of public sector banks, new private sector banks, old private sector banks and foreign sector banks had reduced from 2009 to 2014, which implied that scale inefficiency of public, new private, old private and foreign sector banks decreases with the deployment of IT over a period of time. Further, the study analyzed that foreign sector banks and new private sector banks have done well in the field of using their input efficiently than public sector banks and old private sector bank.

Study revealed that Bank of Baroda, Bank of India, The South Indian Bank, DBS Bank and Deutsche Bank scored inefficiency score as zero, which describes that these banks are doing consistently well in 2009 to 2014. Study clearly depicted that these banks have used the IT successfully to reduce the scale inefficiency by properly deploying IT inputs resources.
7.10 Suggestions

To increase the level of knowledge and awareness banking sector should pay attention to various activities like advertisement campaigns, information and up-gradation by bank, online demonstration of automated banking services and persuasion by the customers who are already using the facilities of automated banking. Banking sector should create more awareness regarding the multiple benefits of automated banking services i.e. ATM/debit cards, credit cards, internet banking, mobile banking and RTGS/NEFT/ECS etc. and innovative products, which will help customers to amplify their business. The bankers should offer knowledge and awareness regarding online facilities and technological aspects regarding transfer of payments, deposits by various alternative manners. Indian banking sector should give proper concentration to information and technology because in proper implementation of services of automated banking this aspect is an essential requirement. As the study found that customers feel that automated banking services, i.e. internet banking and mobile banking are not very much comfortable and reliable, so banking sector need to take some efforts to develop the level of comfortability and reliability about these above automated banking services.

Management of different banks need to provide updated information and integrated facilities to their customers so that they feel motivated which support them to use automated banking services.

In these days security, safety and privacy are the biggest challenge towards the use of automated banking services, so banking sector should need to take some steps to minimize the risk involved in banking transactions. It has been noticed that most of the customers are not using NEFT/RTGS/ECS services because of time lag of transferring the funds to beneficiary accounts, so banks need to minimize the time duration between transferring the amount to beneficiary account.

It has been noticed that bank employees have played a significant role in problem handling and customer satisfaction. Therefore bank employees must be well knowledgeable and should make available all kinds of automated banking services. If the service personnel are not well behaved and are rude, then it will affect customer satisfaction and loyalty. So employees training and development should be an area of enhancement.
While using automated banking services, customers faced problems of connectivity, poor network, poor responses regarding complaints, high banking charges and security problems. So banking sector need to take some steps to reduce the frequency of occurrence of these problems, which could result in higher customer satisfaction.

Banks should also craft efforts to reduce the ATM/debit card problems such as ‘machine out of order’, ‘machine out of cash’ and ‘maximum withdrawal limit fixed’. The satisfaction level of the ATM/debit card customers are affected by many factors such as promptness of the delivery, location aspect of the ATMs, privacy, safety, security and accuracy, working performance of the ATMs and network connectivity. Network connectivity and safety, security and accuracy are the apex need so that response to any query is provided promptly and with accuracy.

Management of different banks need to organize some motivational programs to build customers confidence about credit card services. The managements need to provide the credit card to their customers at easy and cheaper rate and the credit limit of credit cards should be increased. Banks should also craft efforts to make the grievance redressal processes better organized and withdrawal of cash easier as these are coming into view as significant statements of satisfaction of credit card users.

Management of different banks must need to take some steps to reduce down the charges of using various automated banking services i.e. ATM/debit card, credit card, internet banking, mobile banking and NEFT/RTGS/ECS services.

Banks should engage in recreation of a practical role in the area of complaint handling and final settlement process before the due dates. In the settlement of credit cards, ATM cards and other transactions, banks should sympathize that claim should be settled as early as possible. Customer care department should have an impartial and independent team from with a blend of skill and proficiency so that they can provide a satisfying and quick decision regarding customer’s problems.

Further, it has been noticed that while using internet banking, customers face many problems regarding bank website, un-updated information on net and hacking of password etc. So bank must need to give some attention to maintain their websites fully updated and completely secure. This strategy can also improve customer satisfaction. The banking sector should pay proper attention to the development in their websites, updated intimation and quick information,
immediate problem solving, updated technological development etc. as these were found problematic.

As far as problems related with mobile banking are concerned the problem i.e. signal failure and network congestions, network problem, password hacking problems and complex procedure to use mobile banking are the major problems faced by customers, so banking sector should need to take some steps to reduce down these above mentioned problems arising while using mobile banking service by customers.

Personalized services are supreme in case of banking service. Retaining and developing customers have been decisive success factors for banking industry. In that sense, for banking industry, it is very essential to provide every possible facility to their customers. The banks should use all the channels of automated banking to their highest level, to satisfy, retain and attract more and more customers.

It has been noticed that the respondents of public sector and private sector are comparatively less satisfied than foreign sector banks. So public and private sector banks need to identify the various reasons behind the issue and should work accordingly so that their customers feel motivated and highly satisfied.

The users of automated banking services belonging to Rohtak, Hisar and Ambala reflected comparatively less satisfaction on most of the factors that enable customer centric automated services. The banking sector should pay proper attention to deliver services as promised, timely intimation and information about new services, customized products, timely and prompt services, efficient problem solving system, etc.

According to the present study the important factors are ‘timely and prompt services’, ‘innovative products and services’ and ‘customer orientation’. Consequently banks should give priority to these factors over the others while framing policies and allocating resources for marketing of services.

The banking sector should pay proper attention to deliver services as promised, integrated services, customized products, customer orientation, timely and prompt services, efficient complaint handling mechanism, reimbursement of any losses due to use of automated banking services etc.
The sprinkled customer base needs diverse products and services to satisfy their bank related requirements. Innovative products and services have been also found the imperative determinant of customer satisfaction in banking sector. So the banks should have need recognition process in place to understand customer requirement such as employees behaviour and customer orientation. Marketing executives further should also work to condense the response time to minimum while delivering the service as request for service is made. The banking sector should put emphasis on innovating new products and services, which can serve up multiple objectives.

Banks should award added prominence on promotional activities to attract the youth to recent banking facilities such as mobile banking, internet banking and other modes of automated banking. In the same way, banks have to track customers for using automated banking services by making use of a mixture of promotional activities and developing banking products, which make available all the recent facilities at their doorstep. Proper marketing and promotional strategies should be developed to make customers more aware and knowledgeable about various automated banking services.

It has been noticed that customers are using all kind of automated banking services because of convenience, prompt service, safety and security and more reliable sources of transfer funds. Hence banks must need to take some steps to make more investment to develop these facilities so that their customers feel satisfied and make well use of automated banking services.

Banker need to gear up to the response and turnaround time in delivery of services needs to be reduced in specific areas like payment and deposit receipt and documentation, SMS service. There has been a growing apprehension that a decision-making based on statistical base be inclined to be closer to accuracy. To improve business operations, to design better banking products, to develop appropriate pricing and to minimize the risk of internet banking, management of database is the best strategy. Bankers should mount up data about their perspective customers.

Management of different banks should give recognition to customers. They should invite suggestions, take feedback and incorporate the suggestions in decision-making process.

Further study analyzed that Business per employee (B.P.E), Profit per employee (P.P.E) and Business per computerized branch (B.P.C.B) of public, old private sector banks are comparatively much lower than new private and foreign sector banks. Hence public, old private
sector banks need to minimize their inefficient and unproductive employees, modifying their investment patterns and minimizing risky capital, so that their profitability and productively would increase.

The study analyzed that the total number of debit cards, credit cards and total number of employees of public sector banks are much higher, which results into the higher investment in the input cost. So the public sector banks need to give some attention to reduce their inefficient cost and maximize profitability by efficient management of resources.

Public sector and old private sector banks must improve their infrastructure facilities and information technology aspects. These banks should improve and fasten their decision making process. Further, public sector and old private sector banks have to improve their implementation strategies, so as to utilize their resources optimally and should improve their infrastructure facilities, which would support to get higher profitability.

7.11 Managerial Implications

The major conclusions of the study are imperative because the service industry has become the most vital sector of the Indian economy. The results of the study basically provide the banking decision makers an insight into the consumer perception regarding automated banking services among the Indian consumers. The scope of the study for the banks is as follows:

The study makes available an insight into the need of various aspects of automated banking services to improve awareness level of customers. The study also highlights the important satisfaction factors perceived by customers regarding automated banking services. The important customer satisfaction factors are ‘convenient’, ‘timely and prompt services’, ‘safety, security and accuracy’, ‘customized service’ and ‘information technology’. The executives who are involved in decision-making process and implementation can gain adequate information as to how they would develop their strategies to provide maximum satisfaction to their customers. Further the study also brought out various problems faced by customers while using automated banking services, i.e. ‘connectivity problem’, ‘poor grievance handling’, ‘inadequate information and knowledge’ and ‘website of the banks’ etc., which would help the bankers to develop some strategies and policies to minimize such kind of problems and betterment of their offered services.
The study of factors affecting customer satisfaction in banking industry helps to find out the gap that what type of strategies have been given importance in formulation of banking policies and what are the factors which have been considered important by customers. The sprinkled customer base has given importance to customized products and services, so banking sector have received clear-cut idea that innovation in services and more facilities to customers are required.

The study also highlights the profitability and productivity of the public, old private, new private and foreign sector banks on the same parameters. The gap between the four categories can be easily studied. So the banks irrespective of sector have found their spot where necessary improvements are required.

The automated banking service environment is changing fast and very dynamic. What was relevant yesterday may not work today. In such dynamic environment, the study offers the contemporary existing and thinking pattern of customer about the services of banks. These contemporary factors will help banks to rethink obsolete parameters and enhance currently desired input.

The public sector and old private sector banks can evaluate their position in the overall market scenario as far as profitability and productivity of Indian commercial banks are concerned. These banking sectors can uncover the weakest areas that help them to enlarge suitable and intensive development strategies to increase the profitability and productivity by minimum use of their input resources.

### 7.12 Future Research Directions

The future researchers may select certain issues that are not included in this study:

- The present study is confined to measure the effectiveness of various automated banking services, problems in automated banking in urban areas ignoring the rural areas. Further it is based on the survey of only 750 users of automated banking services. The future research can be conducted in rural areas and with a large sample size.

- Due to financial and time constraints, the study has been conducted in the Delhi and four administrative divisions of Haryana i.e. Rohtak, Hisar, Ambala and Gurgaon, so the results of the study may not represent the respondents of whole of India due to diversity
in culture, language, life style, literacy rate, customs, traditions, developments of various states of India, etc.

- No primary data collected through sample survey is free from bias and accuracy in one respect or another. The data collected and used in this study may not be free from certain errors particularly with respect to the respondents’ adequate comprehension of the subject.

- The future research can be sector specific, company specific or product specific.

- The present study has been conducted on effectiveness of customer centric banking practices: a study of automated banking services in Indian retail banking; the future research can concentrate on only one aspect more widely.

- The secondary data analysis of present study is based on public sector banks i.e. State Bank of India, Punjab National Bank, Bank of Baroda, Bank of India, Canara Bank and Union Bank of India, new private sector banks i.e. ICICI Bank HDFC Bank AXIS Bank, Yes Bank, Kotak Mahindra Bank and Indusind Bank, old private sector banks i.e., ING Vysya Bank, The Federal Bank, The Jammu and Kashmir Bank, The South Indian Bank, KarurVysya Bank and Karnataka Bank and foreign sector banks i.e. Citi Bank Standard Chartered Bank DBS Bank HSBC Bank, Deutsche Bank, Royal Bank of Scotland. Hence the future research can be done on the basis of other Indian commercial banks.

- The limitations are natural and bound to occur, the study throws an attention to the understudied but highly important area of banking industry to satisfy their customers. This will work as conservatory for bankers in channelizing their thinking route and providing new directions to their efficiency and effectiveness efforts. This study will work as a basis and floor way for advanced research.