CHAPTER - 5

Research Methodology

- ☑ Introduction
- ☑ Objectives of the Study
- ☑ Benefits of the Study
- ☑ Research Design
- ☑ Methods of Data Collection
- ☑ Target Population
- ☑ Sampling Techniques
- ☑ Sample Size
- ☑ Reliability & Validity of the Study
- ☑ Hypothesis of the Study
- ☑ Unit of Analysis
- ☑ Statistical Tools used for data Analysis
- ☑ Limitation of the Study
- ☑ Delimitation of the Study

CHAPTER: 5
RESEARCH METHODOLOGY

Introduction:

Research methodology is to be considered as a path maker, torch viewer and provide concrete guidelines to the researchers in any field and any kind of research. Without research methodology a research work is look like a building without pillar, an effort without planning and a running train on track without any signal. It may be noted, in the context of planning and development, that the significance of research lies in its quality and not in quantity. The need, therefore, is for those concerned with research to pay due attention to designing and adhering to the appropriate methodology throughout for improving the quality of research. The methodology may differ from problem to problem, yet the basic approach towards research remains the same. Keeping in mind all these things this chapter deals in details the research methodology and its various components to be used in this research.

5.1 Objectives of the Study:

The objectives of this study can be divided into two category namely main objective and the sub objectives.

5.1.1 Main Objective of the study:

i. To identify the factor affecting of customer satisfaction level of internet banking users in a selected city of western Indian state, which leads to make more loyal customer and hence loyalty leads to the attracting more customer, expansion of business and increase in net profit.

ii. To measure the satisfaction level of internet banking users in a selected city of western Indian state, which leads to make more loyal customer and hence loyalty leads to the attracting more customer, expansion of business and increase in net profit.

5.1.2 Sub-objectives of the study:

i. The purpose of this study is to find out which of the factors (Identified Variables) play an important role to determine the over all satisfaction of internet banking users in the selected city of western Indian State.

ii. To establish the relationship among several attributes and the over all customer satisfaction of internet banking in a selected city of western Indian states.

iii. To find out the Geographical & Cultural impact on over all satisfaction of internet banking users among the selected city of western Indian states.

iv. To know that how much customers rely on their banks towards maintenance of their account and privacy issues.

v. To establish relationship among Gender, Age, Income and the level of education with the satisfaction level of internet banking service facilities provided by the banks.

vi. To create awareness of internet banking which provides a higher level of convenience that both commercial and retail customers desire to have. With this service, the bank not only has the opportunity to manage their business better, but also help their customers to achieve efficient process of managing their finances.

vii. To recommend banks regarding the improvement which is to be needed if any for successful adoption and operations of internet banking service facilities.

5.2 Benefits of the Study:

This study will be beneficial for both, the customer of a bank and the banks itself.

The major benefits of this study are as follows:

i. Bank should be able to identify area of improvements which is to be needed to increase the level of customer satisfaction towards internet banking services in western Indian states.

ii. This study also tries to increase adoption level through increase in customer satisfaction which leads to internet banking improves productivity. Bank representatives are able to process data more quickly and efficiently; track account activity with automated reports, help customers achieve daily tasks via the Internet, and reduce time spent handling service problems.

iii. This study tries to improve the satisfaction level of customer directly or indirectly with the help of suggestions and recommendations which leads to the customer to use internet banking service facilities.

iv. When satisfaction level is up to the expectation of the customers, they can use the internet service facilities more frequently which can lead to the time and cost saving of customers.

v. This study also provides a strategy not only to manage their business better, but can also help their customers achieve more efficient process of managing their finances.

vi. The recommendation and suggestion will be beneficial for the banks to increase the satisfaction level of internet banking services and manage their business more efficiently and strategically which leads to attract more customer and hence the profit.

vii. Finally this study will not only provide a sound literature in the field of banking industry for an academic purpose and the research scholars to pursue a further future research but also provide a scope of future research.

5.3 Research Design:

Research design for this study was combination of Descriptive and Analytical in nature. Descriptive is due to the fact finding characteristics and to describe the Customer satisfaction level of Internet Banking users across the western India in a multiple dimension and broad perspectives. An open ended structured questionnaire has been framed to collect the data related with the satisfaction level of customer who are using internet banking service facilities. Questionnaire has been divided into seven sub category as follows:

Initial part are containing the information related with respondents Demographic in- which 15 questions were asked from the respondent about his/her personal information like income, age, educational qualification, area of residence, types of bank account, number of bank account, purpose of bank account etc.

Second important part of Questionnaire contains the information related with the Efficiency of a Banks in which seven questions were asked from the respondent like; Log in speed of the account, find out the important information from the bank website, user friendliness of bank website, Instructions & Notice statements for customers on bank's website, Hang out during transaction process and speed of logout etc.

Third important part of a questionnaire contains the information related with the reliability of a customer on a bank in which 13 questions were asked from the respondent like; how much web page of a bank is reliable, The bank site is up (24 x 7) and running all the time, The bank's site page don't freeze after you have put in all your information, Links are problem-free, accurate and the pages download quickly, Information that is provided is accurate, Information contents and texts are easy to understand, Easiness of transferring money to any branch, Account statement through SMS/ E-mail services and Reputation of bank etc.

Fourth important part of a questionnaire contains the information related with the service delivery system to customer by bank in which 12 questions were asked from the respondents like; The banks take care of problems promptly, The bank is willing to help customer and provide prompt services, The bank's website has online customer service representatives, Able to talk a customer service representatives on telephone number, Informing customers when services will be performed and Behavior & Attitude of Employee/Customer service representative etc.

Fifth component of questionnaire acquiring the information related with the customer's expectations from the bank in which 4 questions were asked from the respondents like; the bank's website provides a confirmation of the service ordered, the bank's site perform the service right for the first time and the bank site perform task as per the customer instructions etc.

Sixth important part of a questionnaire contains the information related with the privacy issues of customer account information by the banks in which 6 questions were asked from the respondents like; The bank's site does not use cookies to collect information, The bank's site is secure for your credit card information, You can rely on the information that you have given not being misused/shared and You can rely on the information remaining in the register.

Last and seventh part of a questionnaire contains the information related with the tangible in which 6 questions were asked from the respondents like; Modern looking equipment, visually appealing physical facilities, Smart employees, visually appealing materials associated with service and Bank modify their home page occasionally.

The study is Analytical due to the characteristic of its Analysis. It involves a sound and scientific analysis of data with the help of hypothesis testing and the coefficient of regression.

5.4 Methods of Data Collection:

Primary methods of data collection with the help of structured close ended questionnaire have been used for this study. Initially questionnaire was drafted on the basis of past references used by prominent scholars in that field. In initial draft questionnaire was having 75 questions. Entire questionnaire were divided into 6 parts namely, Efficiency, Reliability, Service Delivery, Expectations, Privacy and Tangible. In past many of the researcher have used 5 part and they ignored the last one i.e. Tangible. But in recent Modernized, Globalized and an Innovative era tangible also play an important role to attract customers in a number of ways. Initial draft consists of five point Likert scale which is to be more common in present and past.

After completion of initial draft, printed version of questionnaire were distributed among our colleagues in the Department of Management, Sumandeep Vidyapeeth. After a healthy discussion we come to a conclusion that Expectation should be removed from the questionnaire because both are running in opposite directions some time. Expectation some time cannot be fulfilled or if do so there may be a high charge for that. Another discussion from the first draft includes the Likert scale. Some of our colleagues argued that satisfaction is a qualitative in nature and hence can't be measured numerically. They had suggested that put 9 point Likert scale and the qualitative aspect of customer satisfaction measurement.

As per the improvement suggested by the colleagues some questions were deleted from the initial questionnaire at the time of second draft of questionnaire. Nine point Likert scale were framed to measure the customer qualitative satisfaction. Some new and innovative questions were added in the second draft of questionnaire as per the suggestion and feedback of our colleagues.

Both the draft handed over to the three experts [IIMA, IMNU, MSU] one from each in the same area to check the content validity of the questionnaire. All of them suggest some inclusion and some deletion from the questionnaire. Unanimously all the three experts suggested that five point Likert scale will be best fitted into this kind of study due to various reasons. In the past, majority of the researcher have used only 5 point Likert scale so keeping in mind, they have suggested that consider only five point Likert scale.

Another changes suggested by the expert panel was inclusion of customer expectations in the questionnaire. They argued that without expectation there is no satisfaction. According to them satisfaction is dependent on expectation so include the expectation part in the questionnaire.

Another important suggestion came out from the expert was that inclusion of demographical part in the questionnaire. Initial and second draft of questionnaire does not having a demographical section. Unanimously

5.5 Target Population:

It is very difficult to define the exact target population for this study because there is no any availability of such kind of data at any level in India. I have tried my level best to find out the number of customer who is currently having a bank account with internet banking service facilities but unable to get it or find it. For that purpose I have approached to the various banks branch to get the information regarding the number of internet banking, through my guide but banks has ignored the proposal with a comment that due to privacy maintenance of a customer we are unable to provide such kind of data.

In the past most of the researcher on the related topic or same have used either qualitative measurement or in a few cases they have estimated the target

population on the basis of preliminary survey. Most of them just defining the target population for their study as all the bank account holder with internet banking service facilities in their concerned geographical area.

For this study the target population may be defined in a qualitative term as all the bank account holders with internet banking service facilities in the concerned geographical area of this study. Because there is no alternative options available either to get it from primary and secondary sources or to calculate it.

5.6   Sampling Techniques:

Non-probability snow ball sampling is to be used for this study due to unavailability of proper information and identification which is to be needed about internet banking users.   No other sampling techniques are found to be more appropriate than the snow ball sampling. Because the researcher has not aware about the internet banking users so it becomes very difficult to identify them.

The only way to identify the internet banking user not only with the help of personal contact but the contact of friends, relatives and more importantly the contact of internet banking users.

Initially, researcher needs to identify a few internet banking users in their concerned area and for further identification of respondents their previously identified respondent becomes the source of information and will be helpful to identify the further respondents.

This is the only way to get the appropriate number of respondents which is considered as a sample for this study.

5.7 Sample Size:

Calculation of Sample size for this study is very difficult due to the ill defined target population (Numerically). But still with the consultation of experts across Gujarat (IIMA, IMNU and MSU) in this area, I have just tried to find out the reasonable number which is considered as true representative of that particular city in given state. As per the direction of Dr. Uma Sekaran in his book "Social Statistics" published by Wiley India, total respondent has been decided.

Hence keeping in mind the difficulty level the total number of sample size for this study would be taken 1200. The above figure shows the city wise distribution of sample size for this study.

Furthermore, in Gujarat, Ahmadabad and Surat is having a sample of 200 each. Because the former is considered as the financial capital of Gujarat while the later is known as the diamond city of Gujarat. In both the city number of bank account holder with internet banking is more in comparison to the other city in the state that's why I have kept sample size 200 each for both the city.

Vadodara and Vapi are having a sample size of 150 each due to that they have less bank branches and account holders in comparison to Ahmadabad and Surat.

In Maharashtra two major cities i.e. Mumbai and Pune has been considered for this particular study and each having a sample of 200. The logic behind that Mumbai is also known as financial capital and Pune is well known for Business Purpose in every aspect.

Daman & Diu, Dadar and Nagar Haweli and Goa, the three union territories are having a sample representative of 50 each. The logic behind that they have very few numbers of banks branches and hence accounts holders with internet banking

service facilities. Their geographical areas are also small in comparison to the other cities and states have been taken in this study.

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│                     ┌─►│   Ahmadabad   │─────────► │   200   │             │
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│   │           │     ├─►│   Vadodara    │─────────► │   150   │             │
│   │  Gujarat  │────►│  └───────────────┘           └─────────┘             │
│   │           │     ├─►│    Surat      │─────────► │   200   │             │
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│ │Dadar & Nagar Haveli│►│Dadar & Nagar Haveli│──────► │   50    │             │
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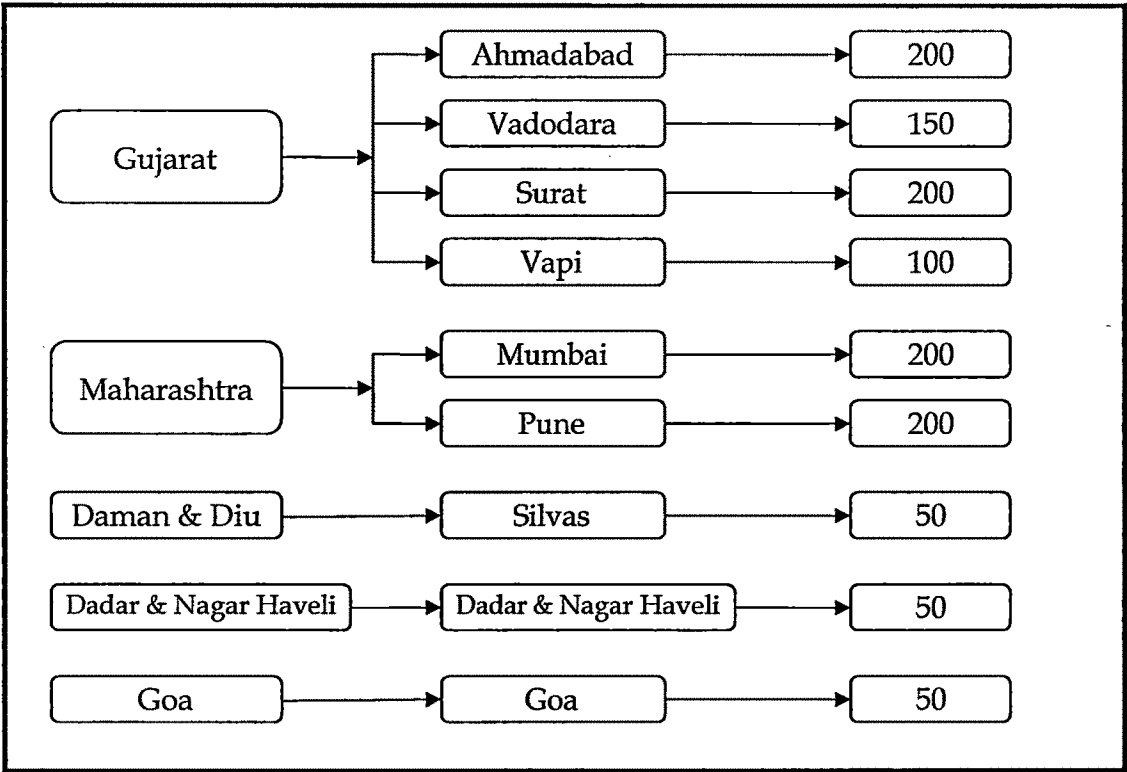
5.8 Reliability and Validity of the Study:

The study is valid if its measures actually measure what they claim to and if there are no logical errors in drawing conclusions from the data (Garson, 2002). Therefore different steps were taken to ensure the validity of the study. The theories that have been selected for the study was clearly described and research question has been formulated based on the previous theories. To check the content validity of the questionnaire various expert in the field of academics and banking from the different organization were contacted and the components of questionnaire were modified as per their instructions.

According to Garson (2002), reliability is a measure if the extent to which an item, scale or instrument will yield the same score when administered in different times, location or population, when the two administrations do not differ in relevant variables. The objective is to make sure that if another investigator will follow the same procedures and used the same case study objects, the same conclusion would me made.

Table 5.1: Reliability & Validity of the Study (SPSS output)				
Sr. No.	Item	No. of Items	Cronbach's Alpha	Remark
1	Efficiency	7	0.793	Desired Level of Alpha is 0.700
2	Reliability	14	0.688	Desired Level of Alpha is 0.700
3	Service Delivery System	9	0.752	Desired Level of Alpha is 0.700
4	Expectation	4	0.891	Desired Level of Alpha is 0.700
5	Privacy	5	0.725	Desired Level of Alpha is 0.700
6	Tangibles	6	0.863	Desired Level of Alpha is 0.700
7	Satisfaction	60	0.927	Desired Level of Alpha is 0.700

Cronbach's Alpha Reliability Index was used to evaluate internal consistency of each construct. Hair et al. (1998) suggests that that acceptable level of reliability index should be maintained at a minimum of 0.5 in order to satisfy for the early stages of research; and over 0.7 is considered to be a good level.

5.9   Hypothesis of the study:

Table 5.2: Hypothesis of the Study			
Sr. No.	**Hypothesis**	**Variables**	
		Independent	**Dependent**
$H0_1$	Bank treats the customer as individual and provides comparative advantage to the customers [Efficiency of a Bank]	Efficiency of a bank	Satisfaction level of Internet Banking Users
$H0_{1a}$	There is no significant relationship between the speed of login of account and the satisfaction level of Internet banking users.	Speed of log in of Account	Satisfaction level of Internet Banking Users
$H0_{1b}$	There is no significant relationship between the user friendly bank's website and the satisfaction level of Internet banking users.	User friendly bank's website	Satisfaction level of Internet Banking Users
$H0_2$	Bank has the ability to deliver on the promise [Reliability]	Reliability of a Bank	Satisfaction level of Internet Banking Users
$H0_{2a}$	There is no correlation between bank website running time and the satisfaction level of Internet banking users.	Bank's website running time	Satisfaction level of Internet Banking Users
$H0_{2b}$	Service Charge and the satisfaction level of internet banking users are independent from each other.	Service Charge	Satisfaction level of Internet Banking Users
$H0_{2c}$	There is no significant relationship between Account statement through SMS/ E-mail services and the satisfaction level of Internet banking users.	Account statement through SMS/ E-mail	Satisfaction level of Internet Banking Users
$H0_3$	Bank has the willingness to help the clients [Service Delivery System].	Service Delivery System	Satisfaction level of Internet Banking Users

Sr. No.	Hypothesis	Variables	
		Independent	Dependent
$H0_{3a}$	There is no significant relationship between the banks provides appropriate information to customers when a problem occurs and the customer satisfaction of Internet banking.	Banks provides appropriate information to customers when a problem occurs	Satisfaction level of Internet Banking Users
$H0_{3b}$	There is no significant relationship between Banks is Educating Customers time to time and the customer satisfaction of Internet banking.	Banks is Educating Customers	Satisfaction level of Internet Banking Users
$H0_{3c}$	There is no significant relationship between informing customers when services will be performed and the customer satisfaction of Internet banking.	Informing customers after services performed	Satisfaction level of Internet Banking Users
$H0_4$	Bank has ready to fulfill its customer expectation [Expectation of a Customer]	Customer Expectation	Satisfaction level of Internet Banking Users
$H0_{4a}$	Online purchase facilities and Satisfaction level of Internet Banking Users are independent from each other	Online purchase facilities	Satisfaction level of Internet Banking Users
$H0_5$	Bank has the ability to inspire trust and confidence in the clients [Privacy]	Secrecy of a Bank	Satisfaction level of Internet Banking Users
$H0_{5b}$	There is no significant relationship between the bank's website is secure for credit card information and the customer satisfaction of Internet banking.	Bank's website security for credit card information	Satisfaction level of Internet Banking Users

Sr. No.	Hypothesis	Variables	
		Independent	Dependent
$H0_6$	Bank has the ability to represent the service physically {Tangibles}	Tangibles	Satisfaction level of Internet Banking Users
$H0_7$	There is no significant relationship between age and customer satisfaction of internet banking users	Age of a Respondents	Satisfaction level of Internet Banking Users
$H0_8$	There is no significant relation between profession of customer and customer satisfaction of internet banking users.	Profession of a Respondents	Satisfaction level of Internet Banking Users
$H0_9$	Factor determining the satisfaction level of respondents are independent from duration of uses (in year) of internet banking services.	Duration of Internet Banking Uses	Satisfaction level of Internet Banking Users
$H0_{10}$	Satisfaction levels of respondents are independent from the geographic location of the respondents.	Geographic Location (Selected City of western India)	Satisfaction level of Internet Banking Users
$H0_{11}$	There is no association between qualification of a respondents and the customer satisfaction of internet banking users.	Qualification of the Respondents	Satisfaction level of Internet Banking Users
$H0_{12}$	There is no association between number of earning members in a family of a respondents and the satisfaction level of internet banking users.	Number of earning members in a family of the respondents	Satisfaction level of Internet Banking Users
$H0_{13}$	There is no association between income of a respondents and the satisfaction level of internet banking users.	Income of a respondents	Satisfaction level of Internet Banking Users

5.10 Unit of Analysis:

Unit of Analysis for this study would be an individual and a group. Customers who are having a bank account with internet banking are to be considered as an individual. On the other hand a group is formed by the adding a group of individual having a same characteristics i.e. on the base of age, sex, education, income, number of bank account, area of residence, purpose of bank account etc.

5.11 Appropriate Tools for Data Analysis:

This study includes the following tools and techniques for the purpose of data analysis at various stages. --

i.   Measure of central tendency:
ii. Measure of variability:
iii. Factor Analysis
iv. Cross Tabulation:
v.   Regression Analysis:
vi. Hypothesis testing:
vii. Cronbach's alpha (Reliability Test):

5.12 Limitations of the Study:

Major limitation of this study includes the following points:

i.   Appropriate identification of target population: Without proper identification of target population it becomes very difficult for a researcher to calculate the sample size. For this study also there is no way to identify the target population and hence scientifically calculate the sample size. It becomes the major limitation of this study.

ii. Second major limitation of this study is that the suggestions and recommendations cannot be generalized. It will only applicable to the concern city of different states and union territories of western India.

5.13 Delimitation of the Study:

The major delimitation for this study is the geographical area and cities across western India. Western India consists of two states i.e. Gujarat and Maharashtra and three union territories i.e. Daman & Diu, Dadar and Nagar Haweli and Goa. All states and union territories across the western India have been considered for this study.

But this study is delimited to the four cities in Gujarat, i.e. Ahmadabad, Vadodara, Surat, Vapi. All these four cities have their own identity. Ahmadabad is known as business capital of Gujarat while Vadodara is known as the cultural capital of Gujarat, Surat is a diamond city not only for Gujarat but at national level. Vapi is considered as fast growing and developing business centre in Gujarat due to the attachment of Mumbai city. In Maharashtra the study is delimited to only two cities i.e. Mumbai and Pune. These two cities are very important not only for the business point of view but for the so many reasons. Daman & Diu, Dadar and Nagar Haweli, Goa there is no option for delimitation due to its geographical expansion. They are very small, having a low population, bank branches and hence bank account holders with internet banking service facilities.