

CHAPTER - III

RESEARCH METHODOLOGY

3.1 Problem Origination

In the contemporary business environment, customer satisfaction has become the top priority for success of any business organisation. This is applicable even more to the service sector. A satisfied customer remains with the bank and even recommends it to others. A satisfied and loyal customer is a free advertiser for the bank. Acquiring a new customer is much costlier than retaining an existing customer¹. Thus customer satisfaction has become a major determinant of market share and profitability for the banks^{2,3}. It was thus, considered prudent to undertake the present study to investigate the factors contributing to customer satisfaction.

3.2 Need and Significance of Study

The perusal of existing literature on customer satisfaction & ITES has revealed that although there have been many research studies on the customer satisfaction, yet there is dearth of research on customer satisfaction with IT-enabled services in banking industry. Considering the fact that banking sector is one of the most penetrating areas and the backbone of any economy, there is an emergent need for doing research on various facets of banking industry in India. The need and significance of the study emerge from the following factors:

1. Although significant research has been done regarding issues and factors contributing to customer satisfaction in the banking industry, very little has been reported regarding the use of IT-enabled services as a tool for customer satisfaction.
2. Banking industry is one the major users of the IT-enabled services. Thus, a need was felt to find out whether such IT-enabled services offered to the customers in an effective and efficient manner.

3. Increasing use of e-commerce by customers, particularly in the field of banking industry, like ATMs, online banking, phone banking, debit and credit cards, mobile banking, has further enhanced the need of conducting the study.
4. It was thought relevant to investigate customer satisfaction & preference with IT-enabled services as, India enjoys enormous competitive advantage in this area. Following are some of the salient features which provide this advantage to India:
 - a) Skilled labour for ITES is available in India at comparatively low wages, which gives significant advantage to India.
 - b) Low, Medium & High level of technical expertise requirement for the IT-enabled services in banking industry is in abundance in India.

3.3 Problem Definition

An orderly definition of the research problem provides direction to the investigation and is an essential prerequisite for research⁴. Thus, if the data are collected before the nature of the business problem is carefully thought out, the data probably will not help solve the problem. Thus, it becomes very important to define the problem very carefully.

For the present study, research focus has been defined as :-

***“Customer Satisfaction with IT-enabled Services in the Banking Sector
– An Exploration and Strategies for Gaining Corporate Leadership”***

3.4 Research Objectives of the Study

The research objectives have been derived from the research problem. Without any concrete objectives the study will not take the researcher to the desired results. The study has been undertaken keeping into mind following objectives:

1. To identify alternative IT-Enabled Services rendered by three types of Banks, viz., Public, Private and Foreign banks.

2. To critically examine the extent of penetration of IT-Enabled Services across different segments of customers by three types of banks, viz., Public, Private and Foreign banks.
3. To compare the satisfaction level of customers and employees for Public, Private and Foreign Banks with IT-Enabled Services.
4. To examine the relationship between demographic variables of customers with customer satisfaction towards IT-Enabled Services offered by banks.
5. To critically evaluate the rules and regulations governing IT-Enabled Services provided by banks.
6. To identify the difficulties encountered in availing IT-Enabled Services from banks.
7. To suggest suitable strategies to enhance penetration of IT-Enabled Services in banking industry so as to gain corporate leadership.

3.5 Research Hypotheses of the Study

Hypotheses are unproven propositions or supposition that tentatively explains certain facts or phenomenon⁵. Hypothetical statements are the probable answers to the research questions. Statements of hypotheses have considerable importance in research design. They make everything clear about what is expected out of the study and further raises questions about the data that will be required in analysis stage⁶. Hypotheses formulated for achieving the objectives of the present study were as follows:

- H1: There is no significant difference between the perception of customers of Public, Private, and Foreign Banks as regards to IT-Enabled Services.
- H2: There is no significant difference between the perception of customers and employees of Public, Private and Foreign Banks as regards to IT-Enabled Services.

H3: There exists a positive relationship of overall satisfaction of customers towards internet banking, with different components of service quality.

H3.a: Tangibility has a significant impact on overall customer satisfaction towards internet banking.

H3.b: Reliability has a significant impact on overall customer satisfaction towards internet banking.

H3.c: Responsiveness has a significant impact on overall customer satisfaction towards internet banking.

H3.d: Assurance has a significant impact on overall customer satisfaction towards internet banking.

H3.e: Empathy has a significant impact on overall customer satisfaction towards internet banking.

H4: There exists a positive relationship of overall satisfaction of employees towards internet banking, with the different components of service quality.

H4.a: Tangibility has a significant impact on overall employee satisfaction towards internet banking.

H4.b: Reliability has a significant impact on overall employee satisfaction towards internet banking.

H4.c: Responsiveness has a significant impact on overall employee satisfaction towards internet banking.

H4.d: Assurance has a significant impact on overall employee satisfaction towards internet banking.

H4.e: Empathy has a significant impact on overall employee satisfaction towards internet banking.

- H5: Overall Satisfaction of customers towards internet banking has a positive significant correlation with their propensity to recommend the bank to others.
- H6: Overall Satisfaction of customers towards internet banking has a negative significant correlation with their switching intentions.
- H7: Overall Satisfaction towards internet banking has a positive significant correlation with recommendations made by the employees.
- H8: Overall Satisfaction towards internet banking has positive significant correlation with continuing intentions made by the employees.
- H9: There is no significant difference in opinion of customers of different demographic profiles with different components of service quality.
- H9.a: There is no significant difference between opinion of customers of different age group on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.b: There is no significant difference between opinion of male and female customers on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.c: There is no significant difference between opinion of customers of different education level on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.d: There is no significant difference between opinion of customers of different income group on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

- H9.e: There is no significant difference between opinion of married and unmarried customers on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.f: There is no significant difference between opinion of customers of different occupation on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.g: There is no significant difference between opinion of customers of different geographical areas i.e. states on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H9.h: There is no significant difference between opinion of customers of different banks on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H10: There is no significant difference in opinion of employees of different demographic profiles on various components of service quality.
- H10.a There is no significant difference between opinion of employees of different age group on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H10.b There is no significant difference between opinion of male and female employees on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).
- H10.c There is no significant difference between opinion of employees of different education level on (I-Tangibility, II-Reliability, III-

Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

H10.d There is no significant difference between opinion of employees of different income group on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

H10.e There is no significant difference between opinion of married and unmarried employees on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

H10.f There is no significant difference between opinion of employees of different geographical areas i.e. states on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

H10.g There is no significant difference between opinion of employees of different banks on (I-Tangibility, II-Reliability, III-Responsiveness, IV-Assurance, V-Empathy, VI-Overall Customer Satisfaction).

3.6 Research Design

Research design is the master-plan which specifies the methods and procedures for collecting and analyzing the required information and data. It outlines the way the study has to be conducted. It is an arrangement & collection of data, so that it can be properly and rightly analyzed so as to achieve the desired objectives of the study. The present is based on a survey from where the data was collected, arranged & presented, and analyzed to arrive at results. It provides a framework within which the research work can be done in a smooth manner. It helps in reducing wastages by saving time and money. The method and procedure followed for conducting the study are outlined.

3.6.1 Sample Design

Sampling involves any procedure that uses a small number of items or a portion of a population to make a conclusion regarding the whole population. A sample size of 600 customers and 150 employees was chosen for the present study. The questionnaires were administered through judgemental sampling as it is an exploratory research. The sample was chosen keeping into consideration the banks selected and the geographical region they are situated in.

3.6.2 Data Collection

Once the sample is decided the process of collection of data from respondents begins. The study is based on primary as well as secondary data. Secondary data is presented in the form of review of literature on various areas related to Information Technology Enabled Services (ITES), Customer Satisfaction & Service Quality. Primary data were collected through a structured questionnaire. For the present study three banks each from Public, Private & Foreign Banks were chosen. Thus, nine banks were chosen in total, namely, State Bank of India, Punjab National Bank & Canara Bank from Public sector banks; ICICI (Industrial Credit and Investment Corporation of India) Bank, HDFC (Housing Development Financial Corporation) Bank & Axis Bank from Private Sector Banks; and Standard Chartered Bank, Citi Bank and HSBC (Hongkong and Shanghai Banking Corporation) from foreign banks were chosen. Out of the total questionnaires administered 480 (80%) questionnaires from customers and 134 (89.33%) questionnaires were valid in all respects and were further used for data analysis.

3.6.3 Questionnaire

As the study requires primary data to be collected, help of questionnaires was taken. 750 questionnaires were administered comprising of 600 customers and 150 bank employees.

The process under which the research instrument was developed is presented below:

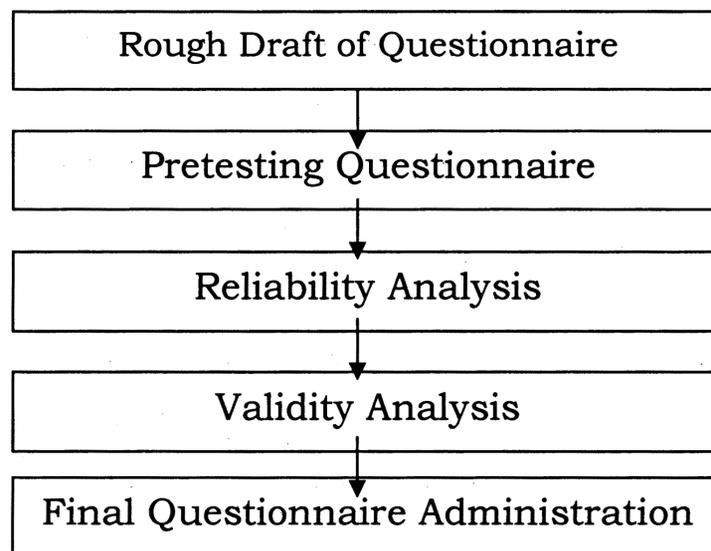


Figure 3.1: Process followed for Questionnaire Administration

3.6.3.1 Rough Draft: In a rough draft various aspects were taken into consideration. To construct the questionnaire a comprehensive literature review was done. From the literature various aspects and variables related to customer satisfaction came out and were closely analyzed. Major part of the questionnaire contained the statements based on SERVQUAL instrument⁷. Researchers agree that service quality is one of the major determinants of the customer satisfaction. Thus, SERVQUAL instrument was taken as base instrument. An effort has been made to find out the applicability of SERVQUAL in internet services also. Therefore, the instrument had to be modified as per the requirement. The five dimensions used were as follows:

Tangibility: It included the statements regarding appearance, technological equipments, systems etc.

Reliability: It included the statements related to the ability of the internet bankers to perform the services dependably and accurately.

Responsiveness: It included the statements related to the internet bankers' promptness to deal with customers' request, queries, complaints etc.

Assurance: It included the statements regarding the knowledge and courtesy of the internet banker and to inspire trust and confidence over bank.

Empathy: It included the statements regarding caring, individualized and personal attention that an internet banker shows towards its customers

Overall Satisfaction: It included the statements regarding to the overall satisfaction with quality, value for money etc towards the internet banking.

Second part of the questionnaire consisted of the statements, intended to know the loyalty of the respondents, by asking if they like to recommend or switch over to other bank.

Third part of the questionnaire included the statements regarding the factors which directly or indirectly affect internet banking.

Statements in the questionnaires for the first three part were to be answered on five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree)

The fourth part consisted of the questions with regards to the personal details of the respondents.

Following things were considered while constructing the questionnaire:-

1. Only those statements were included which were related to variables.
2. Double-barreled statements were avoided.
3. Conversational language was used and statements were kept simple.
4. Statements that may put burden on respondent's memory were avoided. No burdensome statements were asked.
5. Assumptive questions were also avoided.
6. The statements were kept as specific as possible, ambiguity was avoided.
7. Leading and loaded questions were also avoided.

3.6.3.2 Pre-testing of the Questionnaire

Pre-testing is done to know how well the questionnaire works. It helps in eliminating the potential problems that might be faced by the respondents while reading or answering the questionnaire. The questionnaire was pre-tested on 100 customers and 35 employees.

3.6.3.3 Reliability Analysis of the Questionnaire

Reliability applies to a measure when similar results are obtained over time and across situations⁸. Reliability is the degree to which measures are free from error and therefore yield consistent results⁹. In other words reliability means that findings would be consistently the same if the study were done over again. For checking the reliability Cronbach Alpha was applied. Any value above 0.70 is considered to be good indicator of appropriateness of the research instrument. Cronbach Alpha was found to be fairly high with the value of 0.8264 for customers' responses and 0.7552 for employees' responses.

3.6.3.4 Validity Analysis of the Questionnaire

It is the ability of a scale or measuring instrument to measure what it is intended to measure^{10,11}. Face Validity was performed for the purpose, which refers to the subjective agreement among professionals that a scale logically appears to reflect accurately what it claim to measure¹². It is the mere appearance that a measure is valid¹³. In face validity one looks at the measure and see whether "on its face" it seems a good reflection of the construct¹⁴. As the various constructs of the questionnaire have been adapted from SERVQUAL index and literature reviewed, the questionnaire appeared to be valid.

3.6.3.5 Final Questionnaire Administration

After confirming the reliability & validity of the questionnaire it was administered to 600 customers and 150 employees (as per the sample size) of the banks. The questionnaires were distributed to the customers as follows. 200 customer questionnaires were administered in Punjab, Haryana and Chandigarh each,

comprising of 600 questionnaires. Similarly 50 employee questionnaires were administered in Punjab, Haryana and Chandigarh each, comprising of 150 questionnaires.

3.6.4 Statistical Techniques Used

Data itself does not tell anything until and unless it is transformed into some useful information and be made to further analyze, so that some understandable results can be made out of it. Following statistical tools were used for the present study by making the extensive use of MS-Excel and SPSS software packages.

1. *Descriptive analysis*: It is used to describe characteristics of a population or phenomenon. Under the descriptive analysis measures of central tendency like mean and standard deviation were worked out.
2. *Correlation Analysis*: It is a measure of the strength of some relationship between dependent and independent variables. Pearson correlation was used for the present study.
3. *Multiple Regression*: Correlation does not mean causation, thus to know the causal factors multiple Regression analysis was used and to determine the extent of impact of each independent variable on customer satisfaction.
4. *Analysis of Variance (ANOVA)*: It is a data analysis technique which is used to determine if statistically significant differences in means occur between two or more groups. The present study uses this technique to find the variance in responses in different demographic features of the respondents.

3.7 Limitations of the Study

All the research studies have their own limitations and this study is no different. The limitations of the study were as follows:

1. The present study was exploratory in nature and therefore there may be a possibility of difference of opinion between those surveyed and those who could not be contacted.

2. There may be perceptual difference in the opinion of the customers in other geographical regions of India, as the study was conducted in Punjab, Haryana & Chandigarh.
3. After conducting initial research to gather knowledge about different Public, Private and Foreign banks, it was found that foreign banks have not yet shown their presence in rural areas. Thus, due to lack of availability of information about foreign banks among the rural population, no fruitful results could have obtained. Hence, to arrive at desired results the scope of study was limited to the banks situated in the urban areas of the selected geographical area only.
4. Due to money constraints and in order to have a focused approach towards findings, only nine banks were selected for the study, comprising of three banks each from Public, Private & Foreign banks, namely, State Bank of India, Punjab National Bank, Canara Bank, Housing Development Financial Corporation Bank, Industrial Credit and Investment Corporation of India Bank, Axis Bank, Citi Bank, Standard Chartered Bank & Hong Kong & Shanghai Banking Corporation. These banks had the highest profits, largest branch network and customer base¹⁵ in the selected geographical area.

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