CHAPTER 4

RESEARCH OBJECTIVES AND METHODOLOGY

4.1 PROBLEM STATEMENT

Various studies in the area of service quality management highlight the fact that as customer behavior is dynamic in nature, it is hard to have a stable design of service quality. In this ever changing environment of customer perceptions, the concept of service quality has to be revisited time and again. Every customer has a unique behavior and the service provider needs to cater to individual needs. Consequently there are variations in his expectations which again need to be addressed with better service quality. Since service industry has customer satisfaction at its core, the provider has to design a model that could satisfy all his expectations and would subsequently enhance business and goodwill of the service provider.

In addition, a common model of service quality may not be appropriate in all the cultures as behavior and expectations vary globally. So reliability of the model needs to be tested under specific conditions. Hence service quality is now a culture specific concept.

But for a customer, the only way to judge the quality of service is the behavior of the front line employees. So, it is imperative for the service provider and his front line staff to display maturity in service encounter so as to retain customers. So, external service quality is a result of internal service quality. The job satisfaction levels of employees also play a major role in service quality. A satisfied employee would strive to have a satisfactory encounter with customer in order to boost the tendency of the customer to retain his services with the service provider.

Using the very contemporary approach, for those customers who are modern and tech savvy, the judgment of service quality is framed on the basis of technical quality of services. Now since all banking operations have gone online and off the
counter, it is important to evaluate the same at par with the service quality provided on the counter.

Hence this study aims to adopt a comprehensive approach to investigate into the management of service quality by banks of Ahmadabad. The same was operationalized by modifying the SERVPERF MODEL (Cronin and Taylor). The study also enhances the domain by adding the very need of automation in banking industry. Modern customers are now eyeing to use online banking methods. These customers give importance to the technical quality of services. Hence an attempt has been made to integrate the perceptions of customers of the banks, their awareness about online service quality and the perceptions about the employees of the banks so as to get a fair view of the efforts made by banks for service quality management. Following figure represents the structure of research attempted to accomplish the objectives:
4.2 OBJECTIVES OF THE STUDY

4.2.1 Primary Objectives

Objective 1: To identify and compare the perceptions of customers of public and private sector banks.

Objective 2: To identify and compare the level of satisfaction of customers of public and private sector banks.
Objective 3: To identify the key service quality dimensions of public and private sector banks

Objective 4: To identify the impact of key service quality dimensions on overall service quality of public and private sector banks.

Objective 5: To identify the impact of overall service quality of public and private sector banks on level of customer satisfaction.

4.2.2 Secondary Objectives

1: To identify and compare the level of satisfaction of customers of public and private sector banks regarding facilities provided by the banks.

2: To identify and compare the level of technical quality of public and private sector banks

3: To identify and compare the level of awareness of employees of public and private sector banks regarding service quality management

4: To identify and compare the level of awareness of managers of public and private sector banks regarding service quality management

5: To understand the concept of employee empowerment and its impact on quality of services provided by employees

6: To identify the areas to be monitored so as to improve quality of services

7: To comprehend the results of customer and employee analysis and suggest measures to improve the quality of services both in public and private sector banks
4.3. RESEARCH DESIGN:

4.3.1 Type of Research: Descriptive research aimed to identify customer perceptions regarding the service quality of their respective banks.

4.3.2 Sources of Data:

Selection of banks:

The selection of banks has been based on the fact that the below mentioned banks have maximum branches in Ahmedabad city along with nearby small satellite towns like Shilaj, Bopal, Thaltej and Shela now representing newer sub-urban Ahmedabad and adjoining talukas of Ahmedabad city like Sanand and Changodar which are considered as new business hubs. People of Ahmedabad still give more importance to traditional, on the counter banking methods as compared to internet or mobile banking. The selected banks are supposed to have a farther reach and hence justify capturing the perceptions of bank customers.

4.3.2.1 Details of branches of selected banks:

<table>
<thead>
<tr>
<th>Public sector banks</th>
<th>No. of branches in Ahmedabad</th>
<th>Private sector banks</th>
<th>No. of branches in Ahmedabad</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Bank of India</td>
<td>144</td>
<td>HDFC</td>
<td>32</td>
</tr>
<tr>
<td>Bank of Baroda</td>
<td>83</td>
<td>ICICI</td>
<td>28</td>
</tr>
</tbody>
</table>

(source: www.banklocations.in)

4.3.3 Sampling method

In order to measure the overall customer satisfaction as provided by the selected banks, respondents have been chosen on the basis of convenient sampling.
4.3.4 Selection of respondents

The selection of respondents has been subject to two methods in the following study:

**Method-1:**

In order to select the number of respondents, it is necessary to check the minimum sample size. The calculation of minimum sample size assumes that the data will be collected from all cases in the sample and is based on:

- how confident you need to be that the estimate is accurate (the level of confidence in the estimate);
- how accurate the estimate needs to be (the margin of error that can be tolerated);
- The proportion of responses you expect to have some particular attribute.

In case of any population about 10 lakhs, it is assumed that 50% of the sample will have the specified attribute (Saunders et al. 2011). All this information is substituted in the following formula:

\[
n = p\% \times q\% \times \left( \frac{z^2}{e^2} \right)
\]

Where;

- \(n\) is the minimum sample size required.
- \(p\%\) is the proportion belonging to the specified category.
- \(q\%\) is the proportion not belonging to the specified category.
- \(z\) is the \(z\) value corresponding to the level of confidence required.
- \(e\%\) is the margin of error required.

Here, assuming that 50% of the sample will belong to a specified category (\(p\%\)) and 50% will not belong to the specified category (\(q\%\)) and a \(z\) value of 1.96 at 95% confidence level, the sample size calculated is as follows:
n = 50 \times 50 \times \left( \frac{1.96}{5} \right)^2

= 384

(Source: www.checkmarket.com)

Method-2:

Much has been written about the necessary sample size for exploratory factor analysis, resulting in many “rules-of-thumb”. The common rule though is to have at least 10-15 subjects per variable. Nunnally (1978) recommended having 10 times as many subjects as variables. Kass and Tinsley (1979) recommended having 5-10 subjects per variable up to a total of 300 (beyond which the test parameters tend to be stable regardless of the subject to variable ratio). Tabachnick and Fidell (1996) and Field (2005) agree that it is comforting to have at least 300 cases for factor analysis. This will help to indicate common factors relating to such phenomenon.

In the present study, 25 variables are observed, thus justifying \(25 \times 10\) = 250 observations.

Concluding on both the methods, an estimated sample size of 350 subjects was decided upon. Following is the table representing selection of respondents:

<table>
<thead>
<tr>
<th>Banks</th>
<th>Questionnaires submitted</th>
<th>Non-response</th>
<th>Final questionnaires</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public sector banks</td>
<td>350</td>
<td>5</td>
<td>345</td>
</tr>
<tr>
<td>Private sector banks</td>
<td>350</td>
<td>45</td>
<td>305</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>700</strong></td>
<td><strong>50</strong></td>
<td><strong>650</strong></td>
</tr>
</tbody>
</table>

In case of employees’ questionnaires, the thumb rule for factor analysis has been followed, where 24 variables lead to a minimum sample size of 120 observations, but looking to the constraints of their availability an arbitrary figure of 100 employees and 10 senior executives was decided
upon so as to understand their awareness levels regarding service quality management.

4.3.5 Research Instrument

A Structured Questionnaire for customers has been used as the primary research instrument. Separate questionnaire has been prepared for employees and a schedule for senior executives. The respondents were supposed to rate the questions on a Five Point Likert Scale.

4.3.6 Reliability test

Internal consistency reliability is used to assess the reliability of a summated scale in which several items are summed to form a total score. In a scale of this type, each item measures some aspect of the construct measured by the entire scale, and the items should be consistent in what they indicate about the characteristic. This measure of reliability focuses on the internal consistency of the set of items forming the scale.

The coefficient alpha, or Cronbach’s alpha, is the average of all possible split-half coefficients resulting from different ways of splitting the scale items. This coefficient varies from 0 to 1, and a value of 0.6 or less generally indicates unsatisfactory internal consistency reliability (Malhotra, 2001).

4.3.7 Variables studied

a) Demographic profile of respondents

b) Facilities provided by banks and satisfaction level regarding the same

c) Assessment of service quality has been based on three key aspects:

   1. Operational efficiency of banks
   2. Employee behavior
   3. Tangibles

d) Technical quality

e) Customer service initiatives of the banks
4.3.8 Data analysis techniques:

SPSS 20 was used to analyze the primary data. Following steps ensure logical analysis of the exhaustive data:

4.3.8.1 Tabulation:

All the descriptive data has been tabulated for calculation of percentages regarding demographic characteristics and facilities provided by the banks. ANOVA has been used to identify the differences between both groups of customers.

4.3.8.2 Chi square analysis:

Chi-square analysis has been useful to establish relationship between independent and dependent variables with the help of contingency table. Test of goodness of fit has been executed with chi-square.

4.3.8.3 Hypothesis testing:

Hypothesis refers to predictive statements which are guides to action. Following hypotheses have been tested in the research:

**Hypothesis 1**

**H_0:** There is no significant difference in the perceived service quality of public and private sector banks.

**H_1:** There is a significant difference in the perceived service quality of public and private sector banks.

**Hypothesis 2**

**H_0:** There is no significant difference between the overall satisfaction level of public and private sector banks.

**H_1:** There is significant difference between the overall satisfaction level of public and private sector banks.
Hypothesis 3

\( H_0 \): There exists no relationship between perceived service quality dimensions and actual service quality of public and private sector banks.

\( H_1 \): There exists a relationship between perceived service quality dimensions and actual service quality of public and private sector banks.

Hypothesis 4

\( H_0 \): There exists no relationship between overall service quality and overall customer satisfaction level of public and private sector banks.

\( H_1 \): There exists a positive relationship between overall service quality and overall customer satisfaction level of public and private sector banks.

4.3.8.4 ANOVA analysis

ANOVA analysis has been conducted to identify the differences between both the groups of customers. An attempt has been made to identify mean differences between perceived service quality and overall customer satisfaction.

4.3.8.5 Exploratory factor analysis

Factor analysis is a general name denoting a class of procedures primarily used for data reduction and summarization. In marketing research, there may be a large number of variables, most of which are correlated and which must be reduced to a manageable level. Relationships among sets of many interrelated variables are examined and represented in terms of a few underlying factors.

First level EFA was conducted to identify the key dimensions of service quality for public and private sector banks separately.

Second level EFA was conducted to identify the key dimensions of service quality for entire banking industry.
In order to determine that the variables are uncorrelated that means the correlation matrix is an identity matrix, the Bartlett’s test of sphericity was calculated.

Also to measure the sampling adequacy and appropriateness of factor analysis, Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated.

4.3.8.6 Regression analysis

Regression analysis helps to predict dependent variables. The study tried to establish such relation between;

a) Key service quality dimensions and overall perceived service quality
b) Overall perceived service quality and level of customer satisfaction for both public and private sector banks