

CHAPTER – 4

RESEARCH METHODOLOGY

- 4.1 Brief about the Chapter**
- 4.2 Rationale of the Study**
- 4.3 Statement of the Problem**
- 4.4 Research Objectives**
- 4.5 Benefits of the study**
- 4.6 Research Design**
- 4.7 Data Collection**
- 4.8 Sample Design**
- 4.9 Reliability of the Data**
- 4.10 Variables under Study**
- 4.11 Hypotheses of the Study**

Chapter 4

RESEARCH METHODOLOGY

4.1 Brief about the Chapter

This chapter describes the details about research methodology applied by the researcher. This chapter provides the research design used for the study, benefits and scope of the study, the nature and source of data collected for the study and details about the research instrument used for the research purpose. Further, this chapter also provides a brief about the independent and dependent variables under study and provides the limitations and delimitations of the study. Scope of further study is also mentioned at the end.

Further, this chapter gives details about the hypotheses framed and developed from the critical literature review. Statistical packages and its tools and techniques such as SPSS and Excel have been used for analyzing the data and to test the hypotheses developed by the researcher.

4.2 Rationale of the Study

Stakeholders (particularly students and employees) are the backbone of any educational institute, play a vital role to make any Institute superior, renowned and eminent by achieving good position in Corporate World as well as in the society. It is the duty of every educational institute to provide good educational and allied services. Hence, it is necessary to study the services provided by the Educational Institutes to the students. This research study focuses on various dimensions of the service quality to measure the services vis-à-vis satisfaction of various stakeholders (particularly students, teaching staffs and parents) of Educational Institutes.

4.3 Statement of the Problem

One of the most researched topics in marketing management is satisfaction of customers. In today's times of global competition, almost all organization seeks the opportunity to increase the level of satisfaction of their customers. Here, customers in higher education institutions are students, parents, teaching

as well as non teaching staff, society at large and government bodies associated with HEIs.

Thus it becomes important to know the level of satisfaction among the students and other stakeholders in the HEIs. One of the popular model is to know the level of expectations and satisfaction is SERVQUAL. Hence, the study was undertaken to identify the factors that affecting to satisfy the stakeholders of the HEIs and Universities. The statement of problem is as under:

“A Study of Service Quality Dimensions vis-a-vis Satisfaction of Stakeholders of selected Universities of Gujarat”

4.4 Research Objectives

- ⇒ To identify the relationship between Demographic variables and satisfaction of Stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- ⇒ To measure the gap between expectation of stakeholders (particularly students, parents and teaching staffs) and performance of services provided by the universities.
- ⇒ To determine and compare the level of satisfaction of stakeholders (particularly students, parents and teaching staffs) among selected universities.
- ⇒ To examine the relationship between service quality dimensions (Reliability, Responsiveness, Empathy, Assurance and Tangibility) and satisfaction of stakeholders (particularly students, parents and teaching staffs).
- ⇒ To determine critical factors in service quality that contributes most to satisfaction of stakeholders (particularly students, parents and teaching staffs).
- ⇒ To know the impact of SERVQUAL dimensions on satisfaction of stakeholders (particularly students, parents and teaching staffs).
- ⇒ To suggest appropriate measures for improving the quality and efficiency of service quality in selected universities of Gujarat to enhance level of satisfaction of stake holders (particularly students, parents and teaching staffs).

4.5 Benefits of the study

- ⇒ This study will be helpful to understand and improve the services provided by the Universities of Gujarat.
- ⇒ Selected Universities will be able to identify the major area of improvement which is needed to increase the satisfaction level of the Stakeholders.
- ⇒ The recommendations and suggestions will be beneficial for the Universities and HEIs to improve service quality and thereby enhance satisfaction.
- ⇒ This study will not only provide a sound literature for an academician and the research scholars to pursue further research but also provide scopes of further research.

4.6 Research Design

Research design for this study is a combination of Descriptive and Analytical in nature. Descriptive is due to the fact of finding characteristics of stakeholders and their satisfaction level. The study is Analytical due to the characteristic of its Analysis. It involves a sound and scientific analysis of data with the help of measures of central tendency, measures of variation, hypothesis testing, correlation and the regression analysis.

4.7 Data Collection

4.7.1 Primary Data

The primary data have been collected from selected stakeholders of selected universities through structured non-disguised questionnaire. The questionnaire was framed on the basis of objectives of the study.

4.7.2 Secondary Data

The secondary data have been collected from reliable and authentic sources like, published research papers, various authentic websites, published and non-published Ph.D. thesis, annual report of the Universities and other authentic sources. The relevant data which have been used for the purpose of the study has been taken from books, journals and electronic media.

4.8 Sample Design

In this research, the sample design on the basis of suitability and availability of the requisite sampling frame has used. Here, convenience sampling method is preferred by the researcher to select the respondents of the selected Universities.

4.8.1 Population

All the stakeholders of universities in Gujarat are the population for study. (State as well as private established in the state of Gujarat)

4.8.2 Target Population

All stakeholders of selected universities of Gujarat constitute the population for study. Target population for this study is the students, teaching and non-teaching staff, parents, society and corporate houses and funding agencies of selected universities of Gujarat.

4.8.3 Sampling Techniques

Convenience sampling method is used for this study due to the data requirement and its diversity. No other sampling techniques are found to be more appropriate than the Convenience sampling. The researcher has selected four universities of Gujarat viz. Two out of four is state university and rest two is private university.

The sampling process is drawn as under:



4.8.4 Sampling Frame

A list of enrolled students, teaching and non-teaching staffs, parents of students and related funding agencies, corporate houses having interface with the universities, concern department of the government constitutes a sampling frame.

4.8.5 Sampling Unit

Student, teaching and non teaching staff, parents, related funding agencies, corporate houses concern department of government is considered to be a sampling unit for the purpose of this study.

4.8.6 Sample Size

Calculation of sample size for this study is quite difficult, reason being the large number of target population (in numerically). But still in consultation with experts in this area and with the help of research guide, researcher has just tried to find out the reasonable number which is considered as true representative of that particular university.

To find out the appropriate number of sample, researcher has used the Sample Size formula for the standard error of the proportion as below:

$$\text{Sample Size (n)} = \frac{\pi (1 - \pi) z^2}{D^2}$$

Where,

n = Sample Size

π = The estimated population proportion (based on the literature review and researcher's judgment) estimate that 70% (0.70) of the target population is satisfied with the services of Universities.

Z = Level of confidence is 95% than associated z value is 1.96

D = The level of precision and desired precision is such that the allowable interval is set as D = P (Sample Proportion) – π (population Proportion) = ± 0.05

This formula is taken from the book *“Marketing Research – An Applied Orientation”* by Naresh K. Malhotra (Sixth Edition) Pearson Publication, pp. 377-379

Calculation of Sample Size:

$$n = \frac{\pi (1 - \pi) z^2}{D^2}$$

$$n = \frac{0.70 (1 - 0.70) (1.96)^2}{(0.05)^2}$$

$$n = \frac{0.70 (0.30)(3.8416)}{0.0025}$$

$$n = \frac{0.806736}{0.0025}$$

$$n = 322.6944 \quad \text{So, sample size round off to 323}$$

Based on calculated sample size 323, also determine the total sample size. Considering the 4 Universities as strata, total sample size for this research is (323×4) **1292** i.e. Students, Teaching Staff and Parents of the students of selected State and Private Universities. The below mentioned Table shows the total population of the study:

Table-4.1: Total Population of the Study

Name of University	Total Students Enrolled	Total Teaching Staff	Total Parents (Assumed to same as no. of students)
State Universities			
M. S. University	37295	1112	37295
S. P. University	39542	1294	39542
Private Universities			
Parul University	29200	2000	29200
GLS University	25000	1800	25000

(Reference: Official Websites of Universities, AQAR Reports & University Profile) (Academic Year: 2018-19)

The below table shows distribution of sample size for this study:

Table-4.2: Selected Sample Size

Name of University	Students	Parents	Teachers	Total
State Universities				
M. S. University	194	98	66	358
S. P. University	192	97	65	354
Total	386	195	131	712
Private Universities				
Parul University	192	96	64	352
GLS University	193	96	65	354
Total	385	192	129	706

4.9 Reliability of the Data

Cronbach's Alpha Reliability Index was used to evaluate the consistency of each variable. Hair et al. (1998) suggests that the acceptable level of reliability index should be maintained at a minimum of 0.50 in order to satisfy for the early stages of research; and over 0.7 is considered to be a good level, 0.9 is considered to be excellent level. Below table shows the Cronbach's Alpha values:

Table-4.3: Reliability Alpha Score

Sr. No.	Data Collected from	MSU	SPU	PU	GLSU	Overall
1	Students	0.961	0.963	0.971	0.956	0.965
2	Parents	0.956	0.963	0.958	0.947	0.955
3	Teachers	0.908	0.964	0.951	0.970	0.957

4.10 Variables under Study

Independent Variables	Dependent Variables
1. Stake Holders' Expectations	1. Stake Holders' Satisfaction
2. Facilities	
3. Tangibility	
4. Reliability	
5. Responsiveness	
6. Assurance	
7. Empathy	

4.11 Hypotheses of the Study

- H01:** There is no significant relationship between Demographic variables and satisfaction of Stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H02:** There is no significant relationship between Reliability variable and satisfaction of stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H03:** There is no significant relationship between Responsiveness variable and satisfaction of stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H04:** There is no significant relationship between Assurance variable and satisfaction of stake holders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H05:** There is no significant relationship between Empathy variable and satisfaction of stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H06:** There is no significant relationship between Tangibility variable and satisfaction of stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.
- H07:** There is no significant relationship between University Performance and satisfaction of stakeholders (particularly students, parents and teaching staff) of selected universities of Gujarat.