

# Assessment of Service Quality in Healthcare A New Dimension for Competitive Advantage

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**ABSTRACT** - In today's fast pace dynamic environment, quality improvement acts as a strategy to attain a competitive advantage in any industry and improve the reputation and profitability of a health organization during time. It's imperative for the hospitals to measure, monitor, and improve the quality of healthcare services in order to survive and achieve patient satisfaction. Healthcare managers need a thorough understanding of the means to enhance the quality of care in practical terms. Under such circumstances, hospital managers put their main emphasis on attracting as many patients as possible and turning them into loyal customers by recognizing their expectations and responding to them in an effective manner. This calls for the necessity of measuring healthcare quality in a competitive environment. This paper investigates the relationship between SERVQUAL & Customer Satisfaction and also the relative importance of the perceived service quality dimensions on Customer Satisfaction. The findings indicate that all the dimensions of SERVQUAL have a significant positive relationship with customers' satisfaction except dimension empathy. The regression analysis result shows that in customers' satisfaction 78.3% change comes because of service quality and its dimensions. The findings may be instrumental in strategizing an apt competitive advantage in the healthcare sector.

**Keywords:** Service Quality, SERVQUAL, Customer satisfaction, Healthcare Sector, Private Hospitals

## I. INTRODUCTION

To survive and remain in the run of competition every organization has to give its best. In present scenario, customers are like god for organizations. Ultimately every organization works to satisfy its customers. Organization tries to understand the needs of customers and state these clearly so that desired output can be delivered to the customers. Organizations which are service centric have to pay comparatively more attention to their customers as these organizations offer intangible products i.e. service. To maintain consistency in case of service is quite a tough task but organizations have to try their 100% to serve their customers and to turn them in delighted ones. Organizations try to tangiblize services so that customers can be attracted, satisfied and can be retained for long-run. Organizations have to maintain quality of service and it is the key factor in the success of service industry.

Hospital industry is a service-based industry which has wide spectrum in terms of service quality. There are many factors which play important role in the success of any hospital. Usually people invest good amount of money in hospitals to avail good quality service as it is matter of life. Many times, private hospitals are preferred over public hospitals on basis of better quality offered by private hospitals. Usually service has two parameters, first is technical and the second one is functional. Technical aspect of service indicates core services offered by any service

organization and functional aspect of service points out how the service is provided. The quality is always a main concern of customers (Patients) and it sometimes becomes a cause of problem of organizations (Hospitals) because generally service expectation of customers from organization doesn't match with the actual service provides by organization. Thus, it becomes almost imperative to understand customers' expectations well.

## II. SERVICE QUALITY DIMENSIONS

The model of service quality i.e. SERVQUAL is based on technical and functional aspects of service. These technical and functional (Process) aspects were indicated by five dimensions in a model. This is SERVQUAL model which was developed by Parasuraman and his subordinates. On the basis of five attributes viz. reliability, responsiveness, assurance, empathy and tangibles to measure consumer satisfaction in the light of service quality; they have identified the gap between the perception and expectation of consumers. Parasuraman et al. identified five dimensions of service quality (Viz. reliability, responsiveness, assurance, empathy, and tangibles) that link specific service characteristics to consumer's expectations. (a) Tangibles- physical facilities, equipment and appearance of personnel; (b) Empathy- caring, individualized attention; (c) Assurance- knowledge and courtesy of employees and their ability to convey trust and confidence; (d) Reliability- ability to perform the promised service dependably and

accurately; and (e) Responsiveness- willingness to help customers and provide prompt service.

Present study is an attempt to understand the customers' satisfaction in hospital industry of Indore city of Madhya Pradesh. For the purpose 4 private hospitals are taken for the study. The primary objective of the study is to understand the relationship between SERVQUAL and customers' satisfaction.

### III. LITERATURE REVIEW

Zeithaml & Bitner (2003) Customer satisfaction is an individual personal feeling of either happiness or displeasure resultant from the assessment of services provided by an organization to him in relation to his expectations. Oliver (1981) included that service providers often place an elevated main concern on customer satisfaction, because it has been seen as a prior requisition to customer retention. As an affirmative outcome of marketing strategies and activities, high customer satisfaction directs to more and more visitation to stores, more product purchases, and word-of-mouth promotion to friends and relatives. Kotler et al. (1999) argued that low customer satisfaction has been associated with his complaining behaviour. A satisfied customer frequently stays loyal longer, and is expected to stand by the firm in future (Oliver, 1980). Bitner and Zeithaml (2003) stated that "satisfaction is estimation of customers of a service or product either those fulfil their hopes and requirements".

Grönroos (1984) suggested it is very important to understand that how consumers perceive the quality of services with the purpose of successfully design advertising and marketing strategies. Service companies should endeavour to minimize the gap between the service expected and the service perceived. He talked about technical and functional qualities of service. According to him, functional quality is a very much important component of the perceived service. "Technical quality" means to "what" the consumer receives whereas functional quality infers to "how" the consumer receives the service.

Parasuraman et al., (1990, 1988) had projected a service quality model that described perceived service quality into five dimensions such as tangibility, reliability, responsiveness, assurance, and empathy.

Brogowicz et al. (1990) have also discussed the technical and functional qualities of service. They have proposed service quality model with three different components, such as a) company image, b) external influences and c) traditional marketing activities which not only influence the technical quality but also the functional service quality expectations.

In addition, Haywood-Farmer's (1988) presented a model on service quality which included processes, physical

facilities, and procedures, the personal behaviour of the service providers as well as their professional judgment.

According to the study findings of Spreng and Mackoy (1996), service quality and satisfaction are different. Only meeting customers' expectations is not enough; what most matters is meeting with their desires.

### OBJECTIVES OF THE STUDY

- To study the relationship between SERVQUAL and Customers Satisfaction.

### IV. HYPOTHESES DEVELOPMENT

For achieving above stated objective hypotheses were developed of the basis of dependent and independent variables. Here, customer satisfaction is taken as dependent variable and SERVQUAL i.e. a pretested model of service quality based on five dimensions (Tangibles, Empathy, Reliability, Responsiveness, and Assurance) was taken as independent variable.

#### Following were the hypotheses:

**H<sub>a0</sub>**: There is no positive and significant relationship between SERVQUAL and customers' satisfaction.

**H<sub>a1</sub>**: There is a positive and significant relationship between SERVQUAL and customers' satisfaction.

**H<sub>b0</sub>**: There is no positive and significant relationship between tangibles and customers' satisfaction.

**H<sub>b1</sub>**: There is a positive and significant relationship between tangibles and customers' satisfaction.

**H<sub>c0</sub>**: There is no positive and significant relationship between empathy and customers' satisfaction.

**H<sub>c1</sub>**: There is a positive and significant relationship between empathy and customers' satisfaction.

**H<sub>d0</sub>**: There is no positive and significant relationship between assurance and customers' satisfaction.

**H<sub>d1</sub>**: There is a positive and significant relationship between assurance and customers' satisfaction.

**H<sub>e0</sub>**: There is no positive and significant relationship between responsiveness and customers' satisfaction.

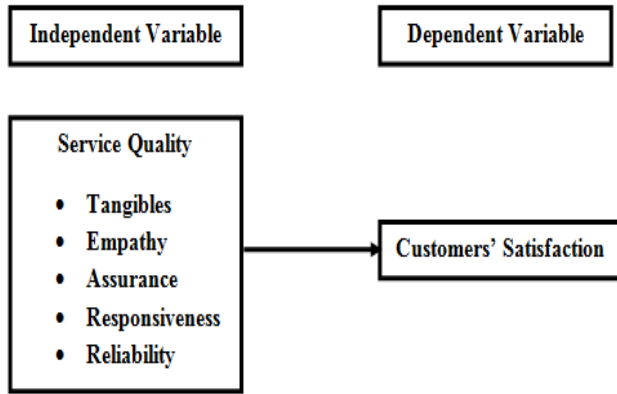
**H<sub>e1</sub>**: There is a positive and significant relationship between responsiveness and customers' satisfaction.

**H<sub>f0</sub>**: There is no positive and significant relationship between reliability and customers' satisfaction.

**H<sub>f1</sub>**: There is a positive and significant relationship between reliability and customers' satisfaction.

Following diagram shows the relationship between dependent and independent variables:

**Framework**



**V. RESEARCH METHODOLOGY**

**The Study**

Present study is conducted to understand the relationship between customers’ satisfaction and service quality offered by private hospitals of Indore city, where customers’ satisfaction was considered as dependent variable and dimensions of service quality was considered as independent variable. The study is descriptive and exploratory in nature.

**Sample**

**Sample Area**

Sample area for the study was Indore city of Madhya Pradesh State.

**Sampling Frame**

Patients of private hospitals have formed the sampling frame of the study.

**Sampling Technique**

The simple random sampling (Probability Sampling) was considered for the study to select respondents.

**Sample Size**

For the purpose 100 patients were taken as sample size of private hospitals. 25 patients were circulated structured questionnaire from each of four private hospitals.

**Data Source**

Both primary and secondary sources of data were used to complete the study. Structured questionnaire was used for primary data collection, consisted of 22 questions representing the five dimensions of service quality on 5 point likert scale along with demographic variables such as age, gender, occupation, income.

For secondary data source journals, e-journals, internet, books, magazines, etc. were referred to frame the base of present study.

**Data Analysis Tools**

For achieving the objective, firstly primary collected data was tabulated in MS Excel 2007 and then SPSS (16.0) was used to analyse the data. Correlation and Regression techniques were used to reach at conclusion. To test the reliability of data Cronbach’s Alpha was calculated.

**VI. RESULTS**

**Table 1: Reliability Test of Item Scales**

Item Name	Cronbach's Alpha (α)	Number of Items
Tangibles	.806	4
Reliability	.776	5
Responsiveness	.774	4
Assurance	.728	4
Empathy	.778	5

From the table 1 it can be seen that Cronbach’s value is greater than 0.7 for every dimension of the service quality, therefore the scale of questionnaire comes out to become reliable for each dimension. It was expected that descriptive statistics was adequate to make clear the projected questions and objectives.

**Descriptive Statistics**

**Table 2: Mean and S.D. for Service quality, its perspectives and Customer satisfaction**

Dimension	Mean	Standard Deviation
SERVQUAL	2.3967	.32918
Tangibles	2.0360	.47143
Empathy	3.6274	.70014
Assurance	2.0715	.64075
Responsiveness	2.0784	.55007
Reliability	2.1887	.57979
Satisfaction	1.3300	.42860

The above table 2 shows Mean and Standard Deviation of service quality, dimensions of service quality and satisfaction. The five point Likert scale instrument ranging from strongly agree to strongly disagree was used. Mean score of SERVQUAL dimensions indicates that respondents are less satisfied with the service quality dimension empathy whereas more satisfied with the rest of dimensions tangibles, assurance, responsiveness and reliability. The Mean Score of satisfaction shows that up to some extent patients are satisfied with private hospitals’ service quality in Indore city.

**Table 3: Relation among SERVQUAL, its perspectives and customer satisfaction**

		SERVQUAL	Tangibles	Empathy	Assurance	Responsiveness	Reliability
<b>Tangibles</b>	Pearson Correlation	.689**					
	Sig. (2-tailed)	.000					
<b>Empathy</b>	Pearson Correlation	-.056**	-.322**				
	Sig. (2-tailed)	.483	.000				
<b>Assurance</b>	Pearson Correlation	.813**	.578**	-.389**			
	Sig. (2-tailed)	.000	.000	.000			
<b>Responsiveness</b>	Pearson Correlation	.802**	.467**	-.342**	.592**		
	Sig. (2-tailed)	.000	.000	.000	.000		
<b>Reliability</b>	Pearson Correlation	.742**	.423**	-.426	.584**	.588**	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
<b>Satisfaction</b>	Pearson Correlation	.574**	.445**	-.337**	.597**	.441**	.568**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000

\*\* . Correlation is significant at the 0.01 level (2-tailed).

To test the relationship, Pearson’s Co-efficient of Correlation was used. Table 3 indicates relationship between satisfaction and service quality dimensions. The results shows that SERVQUAL has positive and significant relationship with satisfaction ( $r=0.574$  at  $p<0.01$ ). Hence  $H_{a0}$  can be rejected and thus it can be concluded that SERVQUAL is positively and significantly correlated with customers’ satisfaction.

The first dimension Tangible has a positive and significant relationship with satisfaction of customers as  $r=0.445$ ,  $p<0.01$ . Thus hypothesis  $H_{b0}$  is rejected and alternate hypothesis is accepted which shows there is a positive and significant relationship between satisfaction and tangibles.

The second dimension Empathy of SERVQUAL shows a negative relationship with the customers’ satisfaction ( $r = -0.337$ ,  $p<0.01$ ). Therefore hypothesis  $h_{c0}$  can be rejected and it can be concluded that there is a significant positive correlation between Empathy and customers’ satisfaction.

Assurance, the next dimension of service quality represents a significant and positive relationship with customers’ satisfaction because  $r = 0.597$  and  $p<0.01$  thus null hypothesis  $h_{d0}$  is rejected.

The fourth dimension of SERVQUAL is responsiveness which represents a significant and positive relationship with satisfaction of customer on the basis of correlation result. The  $r= .441$  and  $p<0.01$  thus  $h_{e0}$  is rejected. Last dimension of SERVQUAL is reliability. The results shows there is a positive and significant and positive relationship between reliability and customers’ satisfaction as  $r=0.570$ ,  $p< 0.01$ . The null hypothesis  $h_{f0}$  is rejected.

**Table 4: Regression study (Satisfaction as dependent variable)**

Regression	R Square	Adjusted R Square	Standard Error of the Estimate
.570	.804	.796	.35407

**Table 5: Regression Analysis**

Beta	Standard Error for Beta	t	Sig.
.783	.088	.650	.000

Dependent Variable (Satisfaction)

Further regression technique was adopted to check that whether SERVQUAL is an interpreter of customers’ satisfaction or not. The results of regression were shown in Table 3. As per the results customers’ satisfaction and SERVQUAL are statistically significant.

The regression result confirms that SERVQUAL is an important part to register increase in customers’ satisfaction. It is observed from the results that elasticity coefficient between customers’ satisfaction and SERVQUAL is .783 which implies that 1% increase in dimensions of SERVQUAL may cause 78.3% increase in customers’ satisfaction. Hence, SERVQUAL positively influence customers’ satisfaction. The coefficient of determination i.e.,  $R^2$  shows that the model has a good fit as 80.4% of customers’ satisfaction is being explained by dimensions of SERVQUAL.

## VII. CONCLUSION AND DISCUSSION

On the basis of results it can be stated that patients of private hospitals of Indore city are satisfied with quality of service up to some extent. Dimensions assurance and tangible have greater score than other dimensions of SERVQUAL model while empathy has lowest score among all. On the other hand, results of Correlation represent that four dimensions of SERVQUAL model including tangibles, responsiveness, assurance and reliability are positively correlated with customers' satisfaction and remaining one dimension that is empathy is negatively correlated to customers' satisfaction. All the dimensions of SERVQUAL have a significant positive relationship with customers' satisfaction except dimension empathy. The regression analysis result shows that in customers' satisfaction 78.3% change comes because of service quality and its dimensions.

## VIII. FUTURE IMPLEMENTATION OF THE STUDY

Present study was conducted only for service sector specifically for hospitals of private sector of Indore city. To broaden up the scope of service quality other services must be included in future study. This study will provide overview to top level management of hospitals that they should follow and enhance quality of service by paying more attention towards services provided by organizations. Management should pay attention to all the dimensions of service quality i.e. tangibles, empathy, assurance, responsiveness and reliability. To improve and set example these hospitals and other hospitals of Indore city should make better strategies keeping in mind the dimensions of quality of service so that productive results of the strategies can be received.

## IX. LIMITATIONS OF THE STUDY

- Present research is limited up to only service sector especially to private hospitals of Indore city. Other service sector can also be considered to get different results.
- Of course time and region of the study were the important constraint for the study.
- Other tests can also be applied for the future researches.
- Sample size is inadequate enough to generalize the results.

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