Measurement of Health Care Service Quality of Private Hospitals in Nagaland Based on the SERVQUAL Model

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ABSTRACT This paper examines and measures the quality of service-both technical and functional provided by private hospitals in Nagaland. SERVQUAL model was applied to measure the service quality. To determine patients' expectations and perceptions of service quality, a survey was conducted in five private hospitals located in Dimapur district of Nagaland. Data for the study were collected through structured sets of questionnaire which were administered to the in-patients as well as out-patients. Results based on analyzing the mean differences between expectations and perception shows that patients' perceived value of the services exceed expectations for all the variables measured, indicating thereby that the private hospitals need to pay attention to all the dimensions of service quality. Private hospitals should therefore give their best interest to understand the needs of the patients and focus on satisfying them to improve the overall service delivery.

Introduction

In this era of information, consumers are well informed, apprehensive and have exceptionally high expectations. Furthermore, consumers today have plethora of alternatives. With competitive pressures and the increasing necessity to deliver consumers satisfaction, service quality has become the primary factor for strategic advantage. Competing organizations provide the same types of service but they do not provide the same quality of service. Service quality is a significant differentiator and the most powerful competitive weapon which many service organizations possess. Service quality is a general opinion the consumer forms regarding its delivery, which is constituted by a series of successful or unsuccessful experiences. According to Zeithaml et al. (1990) service quality is customers' perception of how well a service meets or exceeds their expectations and it is judged by customers, not by organizations. The health care service can be broken down into two quality dimensions: technical quality and functional quality (Gronroos, 1984). While technical quality in the health care sector is defined primarily on the basis of the technical accuracy of the medical diagnoses and procedures or the conformance to professional specifications, functional quality refers to the manner in which the health care service is delivered to the patients (Lam, 1997). In other words, technical quality is about what the customers get, functional quality is about how they get it. According to Berry, Parasuraman and Zeithaml (1988) the quality of service—both technical and functional—is a key ingredient in the success of service organizations.

Measuring service quality had always been a challenge because of the intangible, inseparable, perishable and heterogeneous nature of service. As such services are more akin to performances rather than objects. These distinctions enabled Parasuranam, Zeithmal & Berry (1985) to develop an instrument for measuring Service quality, SERVQUAL, which is most widely used instrument to measure the service quality. SERVQUAL measures perceptions of service quality across five dimensions: tangibles; reliability; responsiveness; assurance and empathy. SERQUAL model was applied in this study to measure the service quality provided by private hospitals in Nagaland.

The main objectives of this study are to measure the overall service quality provided by private hospitals in Nagaland, to present insights into the various aspects of service quality and to provide recommendations based on the findings for effective delivery of health care services.

Research Methodology
Sample and Data Collection

To determine patients' expectations-perceptions of service quality and the relevant quality gaps, a survey was conducted in five private hospitals located in Dimapur district Nagaland. The survey was conducted between January to August, 2016. The hospitals surveyed are:
1. Christian Institute of Health Sciences and Research,
2. Zion Hospital
3. Nikos Hospital and Research Centre
4. Metro Hospital
5. Nagaland Multispecialty Hospital and Research Centre

Data for the study were collected through structured sets of questionnaire which were administered to the in-patients as well as out-patients of the 5 selected Hospitals. The sample respondents for the study were selected from the population by convenience and judgmental sampling method. Questionnaires were randomly administered to 140 patients. The study is based mainly on primary data.

Questionnaire Design and Structure

The SERVQUAL questionnaire developed by Parasuraman et al. (1985) was adopted for designing the questionnaire for the study. Some modifications and adaptations were made to selected questions to make them more relevant to the present study. The questionnaire contained an "expectations" section with 22 statements and a "perceptions" section consisting of a set of matching statements. The statements in both the expectations and perceptions sections were grouped into five dimensions, each with a range of applicable statements: A 5point Likert scale was used for the scoring system with 1 representing Strongly Disagree and 5 representing Strongly Agree. In addition, the questionnaire contained a section relating to sample demographics. An importance weight of each dimension was also obtained from the patients in order to know how much of these features are important to them. They were requested to allocate preferential points to the dimensions so that the total comes to 100.

The Dimensions used for this study are:
1. Tangibility: physical facilities, equipment and appearance of

personnel.

2. Reliability: ability to perform the service accurately and dependably.

3. Responsiveness: willingness to help customers and provide prompt service.

4. Assurance: caring and individualized attention provided to customers.

5. Empathy: employees' knowledge, courtesy and ability to convey trust and confidence.

Data Analysis
Respondents Profile

Out of 140 respondents 55 % were male and 45% were female As per age, 15% of the respondents were in 'less than 25' age group, 35% were 'between 26-35' age groups, 35% were 'between 36-45' age group and 15% were above 45 age group. In terms of employment status 47% were professionals, 35% were students, 10 % were wage employees, 5% were self-employed and 3% were others. With regards to educational qualifications 35% were under-graduates, 45% were graduates and 20% were post graduates.

Expectation- Perception Gap Analysis

Table 1: Expectation-Perception Analysis

Dimensions	Statement	Expectation Score (E)	Perception Score (P)	Gap score (P-E)
Tangibility	Modern equipment	3.53	2.15	-1.38
	Visually appealing facilities	3.55	1.35	-2.20
	Professional appearance	3.73	2.79	-0.94
	Visually appealing materials associated with the service	3.57	3.00	-0.57
		3.60	**2.32**	**-1.28**
Reliability	Provides services as promised	3.15	1.58	-1.57
	Maintains error-free records	4.65	3.27	-1.38
	Provides service at appointed time	3.45	1.17	-2.28
	Maintains privacy	4.67	3.47	-1.20
	24 hours service to patient is available	4.50	4.37	-0.13
		4.08	**2.77**	**-1.31**
Responsiveness	Offers prompt services to patients	3.78	2.67	-1.11
	Willing to help patients	4.05	3.78	-0.27
	Responds to request or calls promptly	4.25	3.35	-0.90
		4.03	**3.27**	**-0.76**
Assurance	Able to handle patients' problems	4.35	3.78	-0.57
	Able to instill confidence in patients	4.57	3.17	-1.40
	Courteous at all times	4.27	3.13	-1.14
	Have the knowledge to answer patients' questions	3.17	2.57	-0.60
	Patients are treated with dignity and respect	3.87	2.75	-1.12
		4.05	**3.08**	**-0.97**
Empathy	Give individualized attention	3.75	2.19	-1.56
	Dealt in a caring manner	4.57	3.97	-0.60
	Convenient consultation hours	4.25	3.79	-0.46
	Doctors and staff understand the specific needs of the patients	3.79	2.35	-1.44
	Feedback is obtained from the patients	3.65	1.85	-1.8
		4.00	**2.83**	**-1.17**
	Total gap score			-5.49

Gap analysis of patients' expectations with perceptions of service quality provided is generally visualized as the sum of customer perceptions of service experience. The overall service quality can be measured by obtaining average gap scores of the SERVQUAL dimensions. The gap scores are the difference between the perception and expectation scores. These gap scores measure service quality and hence customer satisfaction. The more perceptions are close to expectations, the higher the perceived level of quality. The mean scores of Expectations, Perceptions, and Expectation-Perception gaps are tabulated in Table 1 and the Importance Weights, Unweighted and Weighted SERVQUAL score is shown in Table 2.

It can be seen from Table 1 that the average scores of expectations have exceeded perceptions for all the service dimensions examined. This implies that generally patients expect high quality service from the private hospitals in view of the fact that health care services in private hospital are expensive in Nagaland. The negative Perception-Expectation

gaps score for each of the five dimensions indicates that unreservedly expectations of the respondents are higher than the actual service provided by the hospitals, thereby showing that there is need for overall improvement in service quality.

The service quality dimension with the highest expectation score was Reliability (4.08) followed by assurance (4.05). However, these scores do not deviate much from scores of other items; which imply that consumers generally expect an all-dimensional quality service. The Expectation score in responsiveness was 4.03, empathy 4.00 and tangibility 3.60. The item with the highest score for actual service perceived was responsiveness (3.27). This implies that the respondents were more satisfied with the responsiveness dimension (Gap Score of – 0.76). The dimensions with wide gaps score were reliability (-1.31), tangibility (-1.28) and empathy (-1.17).

Table 2: SERVQUAL Unweighted and Weighted Scores

SERVQUAL Dimension	Unweighted SERVQUAL Score	Importance Weight	Weighted Score (Unweighted SERVQUAL Score x importance weight)
Average **Tangibility**	-1.28	17.78	-22.76
Average **Reliability**	-1.31	23.17	-30.35
Average **Responsiveness**	-0.76	20.32	-15.44
Average **Assurance**	-0.97	21.73	-21.08
Average **Empathy**	-1.17	17.00	-19.89
Total	**-5.49**	**100 points**	**-109.52**
Unweighted SERVQUAL	-1.098	-	-
WEIGHTED SERVQUAL SCORE (= Total / 5)			**-21.904**

From the relative importance of service quality dimensions evaluated by patients   Table 2 it is evident that of all the dimensions, reliability (23.17) was allocated maximum weight followed by assurance (21.73). Respondents therefore accorded more importance to reliability and assurance. Patients considered reliability dimension as the most important quality dimension however the perception score of patients in reliability (2.77) was comparatively lower than the other aspects. Responsiveness (20.32) was ranked third. Tangibility (17.78) and empathy (17.00) ranked significantly lower indicating thereby that the respondents were ready to compromise on appearance of physical facilities and considerate nature of the employees.

Average unweighted SERVQUAL Score for the total of 140 respondents was -1.098. When importance weights were also taken into consideration the resultant weighted SERVQUAL Score (-21.904) was also negative. This also implies that the overall service quality offered did not meet the expectations of the patients.

Conclusion and Suggestions
Patients' service quality expectation is multi-dimensional; both technical dimensions-medical care as well as functional dimensions such as comfortable rooms, courteous and emphatic staffs are equally important. The present study reveals

that the expectations of the patients in terms of all the aspects of service quality are not meet by the hospitals meaning thereby that the private hospitals need to pay attention to all the dimensions of service quality. Patient satisfaction has always been a gauge of quality; the hospitals should therefore give its best interest to understand the needs of their patients and focus on satisfying them. Not only the concerned doctors or the nurses but everyone involved at the hospital, all the way up to top management, should place a high priority on the needs of patients. The patients expectation can be met only if the management of the hospitals are sensitive to their issues. The health care service providers should also understand the core responsibility of providing reliable services consistently, which will yield better results in terms of service quality. Adoption of modern technology and changing the traditional business strategies is also a need of the time.

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