CHAPTER - 4

MEASURING SERVICE QUALITY IN HEALTHCARE SECTOR

*Fourth chapter* gives an overview of SERVQUAL model used to measure service quality in Healthcare sector. The chapter provides the conceptual framework based on literature review and also explains the key variables, factors and relationships among theories or models. In this chapter the researcher discussed the concept of service and dimensions of quality and service quality, failure gaps in service quality, importance of service quality, measuring service quality by SERVQUAL model, limitations of SERVQUAL model, Standardizing healthcare quality through hospital accreditations – World and Indian scenarios in order to give a clear idea about the research area.
4.1. INTRODUCTION:

Liberalization, Privatization and Globalization (LPG) has brought unprecedented changes in the economic, trade and industrial scenario. India is fast moving from a protected economy to an open market economy and becoming integrated with the world economy. LPG revolution has exposed various organizations including the service sector to the challenges of competition, service quality, cost, and the competitive environment. Some of those unable to cope with the changes may have to face the consequences of survival of the fittest.

It is generally accepted that the service economy includes the “soft parts” of the economy consisting of nine industry super sectors – education and health services, financial activities, government, information, leisure and hospitality, professional and business services, transportation and utilities, wholesale and retail trade, and other services\(^1\).

The Indian economy is the second fastest growing economy in the world with the growth rate of the GDP at 8.20 percent in the fourth quarter of 2010\(^2\). The economy of India is the twelfth largest in the world (GDP of US$1.09 trillion in 2007). India ranks fifteenth in the service output and it provides employment to around 23 percent of the total employees in the nation. Service Sector of Indian Economy contributed to around 57.2 percent of India's GDP during 2009-10\(^3\). “This sector plays a leading role in the economy of India, and contributed to around 68.6 percent of the overall average growth

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in GDP between 2002-03 and 2006-07⁴. “The most important services in the Indian economy have been health and education. They are one of the largest and most challenging sectors and hold a key to the country's overall progress. A strong and well-defined healthcare sector helps to build a healthy and productive workforce as well as stabilize population⁵”.

The various service sectors are construction, trade, healthcare, hospitality, transport, food and beverages services, and communication, social and personal services, insurance, financing, and other business services.

The service sector contributed the most to the Indian GDP (around 57.2 percent in 2009-10). The service sector contributed only 15 percent to the India’s GDP in 1950. The contribution increased from 43.695 percent in 1990-1991 to around 51.16 percent in 1998-1999. The contribution of the service sector has increased rapidly as Information and communication Technology Enabled Services (ITES) from India and won the confidence of many global corporations, wanting to lower their operational costs through process outsourcing. India has a large pool of highly-skilled and educated workers available at relatively lower cost. So, high quality services from India continue to win market share across the globe from companies wanting to outsource their non-core business processes. There is a growing demand as well for business solutions, financial services and high-tech knowledge processes delivered remotely from South Asian countries for which relevant expertise are often in short supply in Western nations. This demand itself spurs the growth of many new forms of ITES. A study by the international

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consulting firm McKinsey & Co. estimated that 11 percent of service jobs around the world could be carried out remotely. In practice, however, McKinsey predicts that the percentage of service jobs actually “offshore” will prove much more limited, reaching only 1 percent of all service employment in the developed countries by 2008.6

Today service industries dominate our economy. The service sector accounts for more than 70 percent of jobs and it is on the rise and expected to reach 85 percent in the near future. Quality management and quality improvement are mandatory for the success of the service sector and for our economy. In service industries, it is not enough if the product meets the functional requirements of the customer, but the employee behaviour must also meet customer’s expectations and must be of a high standard. Although the relative importance of technical and functional service quality depends on the nature of the interaction between employee, customer and technology, both aspects of Service Quality are important to the customer7.

4.2. SERVICE QUALITY MATTERS:

Evidence in both the manufacturing and services industries indicates that quality is a key determinant of market share and return on investment as well as cost reduction (Anderson and Zeithaml 19848; Parasuraman et al. 19859). Two forms of quality are relevant to service-providing organizations: technical quality and functional quality (Gronroos

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Technical quality in the healthcare setting is also referred to as quality and it is defined chiefly on the basis of the technical accuracy of the diagnoses and procedures. Diverse methods for gauging technical quality have been proposed and are currently in use in healthcare organizations (Joint Commission for Accreditation of Health Care Organizations 1987\textsuperscript{11}). Since this information is not usually accessible to the overwhelming public, knowledge of the technical excellence of health care services remains within the purview of health care professionals and administrators (Bopp 1990\textsuperscript{12}).

Functional quality refers to the manner in which the health care service is delivered to the patient. Since patients are often unable to accurately assess the technical quality of a health care service, functional quality is usually the primary determinant of patients' quality perceptions (Donabedian 1980\textsuperscript{13}, 1982\textsuperscript{14}; Kovner and Smits 1978\textsuperscript{15}). There is growing evidence to suggest that this perceived quality is the single most important variable influencing consumers' value perceptions. These value perceptions, in turn,

affect consumers' intentions to purchase products or services (Bolton and Drew 1988\textsuperscript{16};
Zeithaml 1988\textsuperscript{17}).

**SERVICE – DEFINED:**

Admittedly, the distinction between goods and services is not always perfectly clear. Despite the confusion, the following definition should provide a sound starting point in developing an understanding of the differences between goods and services. In general, goods can be defined as objects, devices, or things, whereas services can be defined as deeds, efforts, or performances\textsuperscript{18}. Service has been defined as “a social act that occurs directly between the consumer and representatives of the service corporation”.

A service might be as simple as handling a complaint or as complex as a home mortgage. Many organizations are pure service business, their products are intangible. Examples would include education, banking, insurance, defense, municipal services, welfare services, legal services, health services and so on. The companies have now switched their competitive focus to the provision of unmatched & unparalleled customer services.

**QUALITY – DEFINED:**

When the expression “Quality” is used, we usually think in terms of an excellent product or service that fulfills or exceeds our expectations. These expectations are based on the intended use and the selling price. Products are determined by its quality. Hence based


on observation it is considered elusive. Quality can be quantified as $Q = \frac{P}{E}$. Where $Q =$ quality, $P =$ performance and $E =$ expectations.

Quality is a complex phenomenon based on perceptions by individuals with different perspectives on products and services. These perceptions have been built up through the past experience of individuals and consumption in various contexts. Survey of literature reveals that Quality has many definitions, some of them are given below:-

“Quality is conformance to requirements”\textsuperscript{19} - Philip Crosby

“Quality is fitness for purpose”\textsuperscript{20} - Dr. Juran

“Quality is a predictable degree of uniformity and dependability, at low cost and suited to the market”\textsuperscript{21} - Dr. Edward Deming

“A wide range of factors leading to a notion of Value Addedness”\textsuperscript{22} - Muller, D. and Funnell, P.

“Quality does not only mean the quality of product, but also of after sales service, quality of management, the company itself and the human life”\textsuperscript{23} - Ishikawa. Kaoru

It is difficult to adequately describe the management of services without considering the growing emphasis on quality management. The Quality has emerged as a key competitive component of strategies of service organizations. There are three main reasons which may account for necessary relevance of quality management\textsuperscript{24}.

• Service organizations need to find ways of creating differential advantage by having better service levels than their competitors.

• Increasing level of consumerism and the greater media attention on quality have meant that service organizations have to be more responsive to quality issues.

• There has been exponentially growing sophistication of consumer markets, with the non price factors of image, product positioning and service delivery process becoming more important.

Different approaches to quality management can be classified into two categories.

• Product attributed approach

• Consumer attributed approach

In Product attributed approach customers try to judge the products conformance to standardized requirements which have been sent by reference to what company managers think the failure point to be. This approach focuses on - performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality.

The consumer oriented approach may also be termed as user based approach. This approach starts from the premise that quality lies in the eyes of the beholder. It is therefore more appropriate to adopt a consumer oriented approach, which recognized that the holistic process of service delivery has to be controlled by taking into consideration the expectations and attitudes of service clients. Goods that best satisfy customer preferences are believed to have high quality.
THE DIMENSIONS OF QUALITY:

As customers evaluate quality of a product or service, they consider several different aspects or dimensions of the product or service\textsuperscript{25}. Those are:

\textbf{Performance}: Primary product characteristics, such as the brightness of the picture.

\textbf{Features}: Secondary characteristics, added features, such as remote control.

\textbf{Conformance}: Meeting specifications or industry standards, workmanship.

\textbf{Reliability}: Consistency of performance over time, average time for the unit to fail.

\textbf{Durability}: Useful life includes repair.

\textbf{Service}: Resolution of problems and complaints, ease of repair.

\textbf{Response}: Human-to-human interface, such as the courtesy of the dealer.

\textbf{Aesthetics}: Sensory characteristics, such as exterior finish.

\textbf{Reputation}: Past performance and other intangibles, such as being ranked first.

4.3. SERVICE QUALITY:

“Service Quality,” a concept described as elusive and abstract by researchers A. Parasuraman, Valarie Zeithaml, and Leonard Berry in 1985. From the patient’s perspective, service quality include perceptions of medical care, but also such seemingly peripheral concerns as physical facilities, interactions with both medical and paramedical staff.

Reflecting this understanding A. Parasuraman, Valarie Zeithaml, and Leonard Berry developed a conceptual model of service quality\textsuperscript{26} that includes the following


dimensions: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibles. This hypothetical model of service quality analyzes it as a construct that is similar to a viewpoint that results from a comparison between consumer’s service expectations and insights of the performance they have received on those dimensions.

Service quality has been defined by various researchers in diverse ways. For example, Bitner, Booms and Mohr\textsuperscript{27} define service quality as ‘the consumer’s overall impression of the relative inferiority / superiority of the organization and its services’. While other researchers Cronin and Taylor\textsuperscript{28} view service quality as a form of attitude representing a long-run overall evaluation, Parasuraman, et al. defined service quality as ‘a function of the differences between expectation and performance along the quality dimensions’. This has appeared to be consistent with Roest and Pieters\textsuperscript{29} definition that service quality is a relativistic and cognitive discrepancy between experience-based norms and performances concerning service benefits.

Most experts agree that customer satisfaction is a short-term, transaction-specific measure, whereas service quality is an attitude formed by long-term, overall evaluation of performance. Without a doubt, the two concepts of customer satisfaction and service quality are intertwined. Some believe that customer satisfaction leads to perceived service quality, while others believe that service quality leads to customer satisfaction. In

\[\text{Reference List}\]
\begin{itemize}
\end{itemize}
addition, the relationship between customer satisfaction and service quality and the way these two concepts relate to purchasing behaviour remains largely unexplained.  

To deliver a consistent set of satisfying experiences that can build into an evaluation of high quality requires the entire organization to be focused on the task. The needs of the consumer must be understood in detail, as much the operational constraints under which the firm operates. Service providers must be focused on quality, and the system must be designed to support that mission by being controlled correctly and delivering as it was designed to do. Service quality offers a way of achieving success among competing services. 

Service quality is a critical element of customer perceptions. In the case of pure services (e.g., health care, financial services, education), service quality will be the dominant element in customers’ evaluations. In cases in which customer service or services are offered in combination with a physical product (e.g., IT services, auto services), service quality may also be very critical in determining customer satisfaction. 

**NEED FOR SERVICE QUALITY:**

As the physiological contentment of the people got satisfied; there is a demand for more satisfaction. The phenomenal changes like economical, technological, LPG (Liberalization, Privatization and Globalization) policies, dawn of Electronic Data Interchange (EDI) and computer explosion are some of the factors for motivating the dramatic growth in services. The below figure 4.1 represents some of the services which

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has grown due to factors stated above and table gives the cause, effect details. High intricacy of products requires experts, business internationalization, de-regulation policies, and expert knowledge. To overcome competition there is a need for specialist services like consultants and professionals.

By and large there is a shift in thinking. People are influenced towards leisure and pleasure which created recreational, entertainment services, and travel related services. Human’s desire to live long has resulted in special health care services like health and fitness clubs, multi specialty hospitals, nursing homes etc. The list is never-ending but a general classification of factors contributing towards the growth of services resulting in Service Quality.

Due to increasing complexity, specialization and competitive nature of business, the market for business services has boomed. Consequently business services like research, industrial relation, accountancy, taxation, legal services, healthcare and many others are in great demand.

In view of changing needs of customers, changing world, changing life style and technological innovations, the market has become customer service oriented. Therefore, in service delivery and service management the service quality has become an essential need in this competitive environment.
Figure 4.1 - Reasons for Growth in Service Industry\(^\text{32}\)

IMPORTANCE OF SERVICE QUALITY:

The foundation for true loyalty lies in customer satisfaction, for which service quality is a key input. Highly satisfied or even delighted customers are more likely to become loyal apostles of a firm, consolidate their buying with one supplier, and spread positive word of mouth. Dissatisfaction, in contrast, drives customers away and is a key factor in switching behaviour. Recent research has even demonstrated that increases in customer satisfaction lead to increases in stock prices.

The satisfaction-loyalty relationship can be divided into three main zones: Defection, indifference, and affection. The zone of defection occurs at low satisfaction levels. Customers will switch unless switching costs are high or there are no viable or convenient alternatives. Extremely dissatisfied customers provide an abundance of negative word of mouth for the service provider. The zone of indifference is found at intermediate satisfaction levels. Here, customers are willing to switch if they find a better alternative. Finally, the zone of affection is located at very high satisfaction levels, where customers may have such high attitudinal loyalty that they do not look for alternative service providers. Customers who praise the firm in public and refer others to the firm are described as “apostles.” Thus Customer Satisfaction and Service Quality are prerequisites of loyalty.

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4.4. DEVELOPMENT OF SERVICE QUALITY MODELS:

Deep insights of service quality and the best way to gauge and accomplish it are intensely debated in service marketing. It has given way to some ‘service quality models’ particularly the ‘Perceived service quality model’\(^\text{35}\) and the ‘Gaps model’\(^\text{36}\) which have emerged and developed in the past two decades.

GRONROOS (1984) PERCEIVED SERVICE QUALITY MODEL:

According to Gronroos\(^\text{35}\) the service quality experienced by a customer has two dimensions; namely technical quality and functional quality. Functional quality describes how the service is delivered and technical quality describes what the customers received during a service delivery.

The organization’s reflection works as a filter and can thus optimistically or pessimistically modify the customers’ view of service quality. The model was intended to offer a conceptual framework to understand the features of service and is not a measurement model.

He identifies a list of determinants of good service quality and argues that the list needs to be short but comprehensive for it to be useful for managerial purposes.\(^\text{37}\) By expanding the argument, Gronroos\(^\text{38}\) emphasizes that the following ‘seven criteria of

\(^{35}\) Gronroos, C. (1984), op. cit., pp. 36-44.
good perceived service quality’ are the determinants that need to be considered when evaluating the service quality of any organization.

1. Professionalism and Skills.
2. Attitudes and Behaviour.
3. Accessibility and Flexibility.
4. Reliability and Trust worthiness.
5. Service Recovery.
7. Reputation and Credibility.

The above ‘seven criteria of good service quality’ models have comparable characteristics to the Parasuraman et al. Service Quality model. ‘Ten Determinants of service quality’ which were recognized from a series of focused group discussions.

SERVQUAL GAPS MODEL/ANALYSIS:

Diagnose Failure Gaps in Service Quality: The Parasuram, Ziethami and Berry Model (PZB Model)

Given the growth of services in the last decades, many researchers have recognized the need to develop measures of service quality. One of the most often used measures is the SERVQUAL based on extensive research in generic determinants of perceived service quality (Parasuraman, Berry et al. 198539; Parasuraman, Berry et al. 198840, Zeithaml,
Parasuraman et al. 1990\textsuperscript{41}; Parasuraman, Berry et al. 1991\textsuperscript{42}; Parasuraman, Berry et al. 1993\textsuperscript{43}; Parasuraman, Berry et al. 1994\textsuperscript{44}. Their model claims that the consumer evaluates service quality experience as the outcome of the gap between expected and perceived quality (Service quality = Perception – Expectation). The model emphasizes on the key requirements for a service provider delivering the expected service quality.

![Figure 4.2 - Service Quality model (Parasuraman, Berry et al. 1985)\textsuperscript{45}](image)

The focal point of the Gaps model is the ‘customer gap’. Zeithaml and Bitner\textsuperscript{46} and Parasuraman et al.\textsuperscript{47} have devised an instrument known as the SERVQUAL instrument which is a questionnaire to measure it. The instrument consists of twenty two questions of twenty two attributes to measure the customer gap or gap between the customers’ expected and the perceived service which was later reduced to 22 questions.

\textsuperscript{41} A Parasuraman, Valerie A. Zeithaml, and Leonard L. Berry (1990), \textit{op. cit.}, pp. 15-36.
Figure 4.3 - Conceptual Model of Service Quality

Zeithaml, Berry, and Parasuraman (1985)\(^{48}\) identify four potential gaps within the service organization that may lead to fifth and most serious final gap – the difference between what customers expected and what they perceived was delivered. Christopher Lovelock\(^{49}\) extends and refines their framework to identify a total of seven types of gaps that can occur at different points during the design and delivery of a service performance.

1. **Knowledge gap** is the difference between what service providers believe customers expect and customers’ actual needs and expectations.

2. **Standards gap** is the difference between management’s perceptions of customer expectations and the quality standards established for service delivery.

3. **Delivery gap** is the difference between specified delivery standards and the service provider’s actual performance on these standards.

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4. **Internal communications gap** is the difference between what the company’s advertising and sales personnel think are the product’s features, performance, and service quality level and what the company is actually able to deliver.

5. **Service gap** is the difference between what customers expect to receive and their perceptions of the service that is actually delivered.

Using SERVQUAL, service quality is determined by the overall gap between what was expected and what was delivered. This means -

- Service quality is relative not absolute.
- Different customers may perceive the level of service quality differently.
- Quality is determined by the customer who has “all the votes”, not by the service provider.
- Service quality can be achieved by either meeting or exceeding expectations.
- Or by changing expectations.

**7-GAPS MODEL BY CHRISTOPHER LOVELOCK:**

Christopher Lovelock identified two more gaps in SERVQUAL model developed by Parasuraman, Zeithaml, and Berry i.e. Perceptions gap and Interpretation gap.
Figure 4.4. 7-Gaps Model by Christopher Lovelock

Perceptions gap is the difference between what is, in fact, delivered and what customers perceived they received (because they are unable to evaluate service quality accurately).

Interpretation gap is the difference between what a service provider’s communication efforts (in advance of service delivery) actually promise and what a customer thinks was promised by these communications.

Gaps 1,5,6 and 7 represent external gaps between the customer and the organization. Gaps 2,3 and 4 are internal gaps that occur between various functions and departments within the organization. Gaps at any point in service design and delivery can damage
relationships with customers. The service gap no.7 is the most critical; hence the ultimate goal in improving service quality is to close this gap as much as possible. However, to achieve this, service organizations usually need to work on closing the other six gaps depicted in above figure. Improving service quality requires identifying the specific causes of all the gaps and then developing strategies to close them.

4.5. GENERIC DIMENSIONS OF SERVICE QUALITY:

In services, it is the consumer who defines quality. Therefore, human side of service is the key to deliver quality. No doubt many of the determinants for quality of products can be applied to the service but the human side of service is missing to a considerable extent in case of services. A Parasuraman, Valerie A. Zeithaml, and Leonard L. Berry\(^5\) a group of researchers in marketing proposed quality dimensions of their own. Originally their study consisted of ten dimensions of quality and developed a list of 97 items on a seven point scale. The ten dimensions are given below:

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<table>
<thead>
<tr>
<th>Service Quality Dimensions</th>
<th>Measurement Criteria</th>
</tr>
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<tbody>
<tr>
<td><strong>Reliability</strong></td>
<td>It means that the firm performs the service right the first time and the firm honors its promises.</td>
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<tr>
<td><strong>Responsiveness</strong></td>
<td>It concerns the willingness or readiness of employees to provide service.</td>
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<tr>
<td><strong>Competence</strong></td>
<td>It means that possession of the required skills and knowledge to perform the service.</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>It involves approachability and ease of contact.</td>
</tr>
<tr>
<td><strong>Courtesy</strong></td>
<td>It involves politeness, respect, consideration, and friendliness of contact personnel.</td>
</tr>
<tr>
<td><strong>Communication</strong></td>
<td>It means keeping customers informed in language they can understand and listening to them.</td>
</tr>
<tr>
<td><strong>Credibility</strong></td>
<td>It involves trustworthiness, believability, honesty.</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td>It is the freedom from danger, risk or doubt.</td>
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<tr>
<td><strong>Understanding</strong></td>
<td>Knowing the customer involves making effort to understand the customer’s needs.</td>
</tr>
<tr>
<td><strong>Tangibles</strong></td>
<td>It includes the physical evidence of the services.</td>
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</tbody>
</table>

*Source: Parasuraman et al., 1985, p. 47*

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**Ten Dimensions (Original model) | Five Dimensions (Later Model)**

- Tangibles
- Reliability
- Responsiveness
- Competence
- Courtesy
- Credibility
- Security
- Access
- Communication
- Understanding the customer

- Tangibles
- Reliability
- Responsiveness
- Assurance
- Empathy

*Figure 4.5. Dimensions of Service Quality*
Figure 4.6. 22-Item Service Quality

<table>
<thead>
<tr>
<th>Service Quality Dimensions</th>
<th>22-Item Scale</th>
</tr>
</thead>
</table>
| **Reliability**            | Providing service as promised  
Dependability in handling customers’ service problems  
Performing services right first time  
Providing services at the promised time  
Maintaining error-free records |
| **Responsiveness**         | Keeping customer informed as to when services will be performed  
Prompt service to customers  
Willingness to help customers  
Readiness to respond to customers’ requests |
| **Assurance**              | Employees who instill confidence in customers  
Making customers feel safe in their transactions  
Employees who are consistently courteous  
Employees who have the knowledge to answer customers’ questions |
| **Empathy**                | Giving customers individual attention  
Employees who deal with customers in a caring fashion  
Having the customer’s best interests at heart  
Employees who understand the needs of their customers  
Convenience business hours |
| **Tangibles**              | Modern equipment  
Visually appealing facilities  
Employees who have a neat, professional appearance  
Visually appealing materials associated with the service |


### 4.6. SERVQUAL:

After testing and subsequent refinement (i.e. factor analysis) the list was pooled into a 22 item questionnaire covering 5 dimensions called SERVQUAL. SERVQUAL is a methodology that helps to identify customer perceptions of service quality, which defines five dimensions of service quality.

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• **Reliability**: Doing what they say they will do, on time and to specification.

• **Assurance**: Possession of the required skills to perform the service and also convey trust, confidence and security.

• **Tangibles**: Include the physical appearance of people and facilities.

• **Empathy**: Showing an understanding of customer needs and provide and individualized service.

• **Responsiveness**: Willingness to help and respond to individual requirements.

These dimensions represent how consumers organize information about service quality in their minds. Research suggests that cultural differences will also affect the relative importance placed on the five dimensions.

### 4.7. MEASURING SERVICE QUALITY:

**THE SERVQUAL INSTRUMENT / SCALE (QUESTIONNAIRE)**

Although measurements of customer satisfaction and service quality are both obtained by comparing perceptions to expectations, subtle differences between the two concepts are seen in their operational definitions. While satisfaction compares consumer perceptions to what consumers would normally expect - service quality compares perceptions to what a consumer should expect from a firm that delivers high-quality services.

The SERVQUAL instrument has been popularly used in gauging service quality in many research studies (Babakus and Boller, 1992; Carman, 1990; Cronin and Taylor, 1992).

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1992\textsuperscript{55}; as cited by Parasuraman et al, 1993\textsuperscript{56}). According to Brown, Churchill and Peter (1993\textsuperscript{57}) also the SERVQUAL is accepted instrument measuring of service quality, which involves the calculation of the difference between expectations and perceptions on a number of specified determinants. After an evaluation of four alternative service quality models Brady and Cronin (2001\textsuperscript{58}) state that the SERVQUAL instrument appears to be distinct from the others as it uses one or more determinants to measure the service quality.

Parasuraman et al. (1994\textsuperscript{59}) acknowledged that the SERVQUAL instrument has been used productively and widely for measuring service quality in many published studies examining service quality in a variety of contexts, including Banking, Pest control, Dry cleaning and Fast food (Cronin and Taylor 1992\textsuperscript{60}; A Gas and Electricity Company (Babakus and Boller 1992\textsuperscript{61}); Discount and Department Stores (Teas 1993\textsuperscript{62}); Hospital services (Emin Babakus, W. Glynn Mangold 1992\textsuperscript{63}).
Often used and extremely debated measure of service quality is the SERVQUAL scale.\textsuperscript{64} According to its developers, SERVQUAL is a diagnostic tool that uncovers a firm’s broad weaknesses and strengths in the area of service quality. The SERVQUAL instrument is based on five service quality dimensions include tangibles, reliability, responsiveness, assurance, and empathy, and they provide the basic “skeleton” underlying service quality.

A SERVQUAL instrument consists of two sections: a 22-item section that records customer expectations of excellent firms in the specific service industry, and a second 22-item section that measures consumer perceptions of a particular company in that service industry (i.e., the firm being evaluated). Results from the two sections are then compared to arrive at “gap scores” for each of the five dimensions. The larger the gap, the farther consumer perceptions are from expectations, and the lower the service quality evaluation. In contrast the smaller the gap, the higher the service quality evaluation. Customer expectations are measured on a 7-point scale with the anchor labels of “not at all essential” and “absolutely essential.” Similarly, customer perceptions are measured on another 7-point scale with anchor labels of “strongly agree” and “strongly disagree.” Hence, SERVQUAL is a 44-item scale that measures customer expectations and perceptions regarding service quality dimensions.

The Tangibles Dimensions

Because of the absence of a physical product, consumers often rely on the tangible evidence that surrounds the service in forming evaluations. The tangibles dimension of SERVQUAL compares consumer expectations and the firm’s performance regarding the

\textsuperscript{64} A. Parasuraman, Leonard L. Berry, and Valerie A. Zeithaml (1988), \textit{op. cit.}, pp. 12-40.
A firm’s ability to manage its tangibles. A firm’s tangibles consist of a wide variety of objects such as carpeting, desks, lighting, wall colors, brochures, daily correspondence, and the appearance of the firm’s personnel. Consequently, the tangibles component in SERVQUAL is two-dimensional one focusing on equipment and facilities, the other focusing on personnel and communications materials.

The tangibles component of SERVQUAL is obtained via four expectations questions (E1-E4) and four perception questions (P1-P4). One should keep in mind that the expectation questions apply to excellent firms within a particular industry, while the perception questions relate to a particular organization while investigating. Comparing the perception scores to the expectation scores provides a numerical variable that indicates the tangibles gap. The smaller the number, the smaller the gap and the closer consumer perceptions are to their expectations. The questions that pertain to the tangibles dimension are as follows.65

**Tangibles Expectations**

E1. Excellent companies will have modern-looking equipment.

E2. The physical facilities at excellent companies will be visually appealing.

E3. Employees of excellent companies will be neat in appearance.

E4. Materials associated with the service (such as pamphlets or statements) will be visually appealing in an excellent company.

**Tangibles perceptions**

P1. XYZ has modern-looking equipment.

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P2. XYZ’s physical facilities are visually appealing.

P3. XYZ’s employees are neat in appearance.

P4. Materials associated with the service (such as pamphlets or statements) are visually appealing at XYZ.

**The Reliability Dimensions**

In general, the reliability dimension reflects the consistency and dependability of a firm’s performance. Does the firm provide the same level of service time after time, or does quality dramatically vary with each encounter? Does the firm keep its promises, bill its customers accurately, keep accurate records, and perform the service correctly the first time? Nothing can be more frustrating for customers than unreliable service providers. Consumers perceive the reliability dimension to be the most important of the five SERVQUAL dimensions. Consequently, failure to provide reliable service generally translates into an unsuccessful. The questions used to assess the reliability gap are as follows:

**Reliability Expectations**

E5. When excellent companies promise to do something by a certain time, they will do so.

E6. When a customer has a problem, excellent companies will show sincere interest in solving it.

E7. Excellent companies will perform the service right the first time.

E8. Excellent companies will provide their services at the time they promise to do so.

E9. Excellent companies will insist on error-free records.
Reliability perceptions

P5. When XYZ promises to do something by a certain time, it does so.

P6. When you have a problem, XYZ shows a sincere interest in solving it.

P7. XYZ performs the service right the first time.

P8. XYZ provides its services at the time it promises to do so.

P9. XYZ insists on error-free records.

The Responsiveness Dimensions

Responsiveness reflects a service firm’s commitment to provide its services in a timely manner. As such, the responsiveness dimension of SERVQUAL concerns the willingness and/or readiness of employees to provide a service. Occasionally, the needs of the customer are ignored by employees due to their own preoccupation. Obviously, this is an example of unresponsiveness. The SERVQUAL expectation and perception items that address the responsiveness gap are as follows:

Responsiveness Expectations

E10. Employees of excellent companies will tell customers exactly when services will be performed.

E11. Employees of excellent companies will give prompt service to customers.

E12. Employees of excellent companies will always be willing to help customers.

E13. Employees of excellent companies will never be too busy to respond to customer requests.
Responsiveness Perceptions

P10. Employees of XYZ tell you exactly when services will be performed.

P11. Employees of XYZ give you prompt service.

P12. Employees of XYZ are always willing to help you.

P13. Employees of XYZ are never too busy to respond to your requests.

The Assurance Dimensions

SERVQUAL’s assurance dimension addresses the competence of the firm, the courtesy it extends its customers, and the security of its operations. Competence pertains to the firm’s knowledge and skill in performing its service. Does the firm possess the required skills to complete the service on a professional basis?

Courtesy refers to how the firm’s personnel interact with the customer and the customer’s possessions. As such, courtesy reflects politeness, friendliness, and consideration for the customer’s property.

Security is also an important component of the assurance dimension. Security reflects a customer’s feelings that he or she is free from danger, risk, and doubt. The SERVQUAL items utilized to address the assurance gap are as follows:

Assurance Expectations

E14. The behaviour of employees of excellent companies will instill confidence in customers.

E15. Customers of excellent companies will feel safe in their transactions.

E16. Employees of excellent companies will be consistently courteous with customers.
E17. Employees of excellent companies will have the knowledge to answer customer questions.

Assurance perceptions

P14. The behaviour of employees of XYZ instills confidence in customers.
P15. You feel safe in your transactions with XYZ.
P16. Employees of XYZ are consistently courteous with you.
P17. Employees of XYZ have the knowledge to answer your questions.

The Empathy Dimensions

Empathy is the ability to experience another’s feelings as one’s own. Empathetic firms have not lost touch with what it is like to be a customer of their own firm. As such, empathetic firms understand their customer needs and make their services accessible to their customers. In contrast, firms that do not provide their customers individualized attention when requested and that offer operating hours convenient to the firm and not its customers fail to demonstrate empathetic behaviours. The SERVQUAL empathy dimension addresses the empathy gap as follows:

Empathy expectations

E18. Excellent companies will give customers individual attention.
E19. Excellent companies will have operating hours convenient to all their customers.
E20. The employees of excellent companies give customers personal attention.
E21. Excellent companies will have the customer’s best interest at heart.
E22. The employees of excellent companies will understand the specific needs of their customers.
Empathy Perceptions

P18. XYZ gives you individual attention.

P19. XYZ companies have operating hours convenient to all its customers.

P20. XYZ employees give you personal attention.

P21. XYZ has your best interests at heart.

P22. Employees of XYZ understand your specific needs.

4.8. LIMITATIONS OF SERVQUAL

Although SERVQUAL has been widely used by service companies, doubts have been expressed about both its conceptual foundation and methodological limitations. Anne Smith (1995) notes that the majority of researchers using SERVQUAL have omitted from, added to, or altered the list of statements purporting to measure service quality. To evaluate the stability of the five underlying dimensions when applied to a variety of different service industries, Gerhard Mels et al. analyzed datasets from banks, insurance brokers, vehicle repair firms, electrical repair firms, and life insurance companies. Their findings suggest that, in reality, SERVQUAL scores measure only two factors: intrinsic service quality and extrinsic service quality.


These findings don’t undermine the value of Zeithaml, Berry, and Parasuraman’s achievement in identifying some of the key underlying constructs in service quality, but they do highlight the difficulty of measuring customer perceptions of quality, and the need to customize dimensions and measures to the research context. From the beginning, its developers have claimed that SERVQUAL is a useful starting point for measuring service quality and was never presented as “the final answer”. The developers of SERVQUAL further contend that when used in conjunction with other forms of measurement, both quantitative and qualitative, SERVQUAL provides a valuable diagnostic tool for evaluating the firm’s service quality performance. Overall, as was the case with satisfaction measures, SERVQUAL is most valuable when compared with a firm’s own past service quality trends and when compared with measures of competitive service quality performance.69

4.9. STANDARDIZING HEALTHCARE QUALITY:

"Market forces, such as medical tourism, insurance and corporate sector have accelerated the demand for quality in healthcare services. As a result, there is a growing demand from consumers for better healthcare as the lack of quality assurance mechanisms limits their access to appropriate health services - Girdhar J Gyani, CEO National Accreditation Board for Hospitals & Healthcare providers, India”70. Systematic efforts to improve quality based findings about the delivery process have been extremely rare. In the studies which focused its attention on service quality, exposed insufficiency in health care services and management systems in less developed countries.

HOSPITAL ACCREDITATION FOR QUALITY ASSURANCE:

Hospital accreditation has been defined as “A self-assessment and external peer assessment process used by health care organizations to accurately assess their level of performance in relation to established standards and to implement ways to continuously improve”\(^71\). Critically, accreditation is not just about standard-setting: there are analytical, counseling and self-improvement dimensions to the process. There are parallel issues around evidence-based medicine, quality assurance and medical ethics, and the reduction of medical error is a key role of the accreditation process. Hospital accreditation is therefore one component in the maintenance of patient safety.

Broadly speaking, there exist two types of hospital accreditation:

1) Hospital and healthcare accreditation which takes place within national borders.

2) International healthcare accreditation.

4.10. QUALITY STANDARDS / ACCREDITATIONS IN HEALTHCARE INDUSTRY:

WORLD SCENARIO:

Joint Commission:

The Joint Commission\(^72\) is a private sector United States-based non-profit organization. It is the best known for a large number of active healthcare accreditation groups in the USA.

The declared mission of this private organization is "To continuously improve the safety and quality of care provided to the public through the provision of health care


\(^{72}\) [www.jointcommission.org/](http://www.jointcommission.org/)
accreditation and related services that support performance improvement in health care organizations."

It is often believed (erroneously) that The Joint Commission is an American or even a World public authority, which is not the case. This perception occurs because of the company's deeming power - "Under 42 U.S.C. §§ 1395bb(a),(b), a hospital that meets Joint Commission accreditation is deemed to meet the Medicare Conditions of Participation" (which is a requirement for Medicare reimbursement).

The Joint Commission is therefore virtually a monopoly, enjoying unique statutory protection in the USA and collecting $113 million in annual revenue, mainly from the fees it charges US hospitals for evaluating their compliance with federal regulations.

**History of the Joint Commission and JCI:**

The Joint Commission's predecessor organization was an outgrowth of the efforts of Ernest Codman, M.D., (December 30, 1869-1940) was a U.S. Physician to promote hospital reform based on outcomes management in patient care. Codman’s efforts led to the founding of the American College of Surgeons and its Hospital Standardization Program. In 1951, a new entity, the **Joint Commission on Accreditation of Hospitals** was created by merging of the Hospital Standardization Program with similar ones run by the American College of Physicians, the American Hospital Association, the American Medical Association, and the Canadian Medical Association. From 1981 onwards the company was re-branded as the **Joint Commission on Accreditation of Healthcare**
Organizations (JCAHO, pronounced "jay-co")\textsuperscript{73}. It is now more usually known as The Joint Commission.

Much more recently, an international offshoot called Joint Commission International, or JCI, has been founded (1997). This group surveys hospitals outside of the USA, using a different set of standards to those used to survey US hospitals (see below), and generates income for the parent company in the USA.

The Joint Commission's Goals and Initiatives:

The company updates its accreditation standards and expands patient safety goals on a yearly basis, and posts them on its website for all interested persons to review, making this information and process transparent to all stakeholders ranging from institutions, to practitioners, to patients and their advocates.

The purpose of The Joint Commission’s National Patient Safety Goals is to promote specific improvements in patient safety. The Goals highlight problematic areas in health care and describe evidence and expert-based solutions to these problems. Recognizing that sound system design is intrinsic to the delivery of safe, high quality health care, the Goals focus on system-wide solutions, wherever possible\textsuperscript{74}. In reality much of the Joint Commission's power stems from the fact that in most states of the USA, the organization functions as a virtual monopoly when it comes to deciding whether or not individual hospitals are able to participate in the Medicare and Medicaid programs, and this great power is, accordingly, a major factor in ensuring that hospitals are, in effect, obligated to


\textsuperscript{74} "Introduction to the National Patient Safety Goals", The Joint Commission, Retrieved on 2007-07-17, http://www.jointcommission.org/
make use of its services if they wish to earn money from Medicaid and Medicare. The Joint Commission recognizes the strength of this position, and the opportunities it presents to the organization; quoting from the Joint Commission's web pages, "The Joint Commission actively monitors and inspects state legislative and regulatory activities for the purpose of identifying additional opportunities for state reliance on Joint Commission accreditation".

International Healthcare Accreditation

With the advent of medical tourism, international healthcare accreditation of hospitals located in many countries around the world has increasingly grown in importance.

There are other accreditation organizations based in countries other than the USA which fulfill a similar internationally-orientated role to JCI. These include:

- The Canadian Council on Health Services Accreditation or CCHSA
- The Trent Accreditation Scheme (Trent Accreditation Scheme or TAS - United Kingdom)
- The Australian Council on Healthcare Standards or ACHS
- International Organization for Standards (ISO) – Switzerland

Also The Society for International Healthcare Accreditation, or SOFIHA, is a free-to-join group providing a forum for discussion and for the sharing of ideas and good practice by providers of international healthcare accreditation and users of the same.
INDIAN SCENARIO:

Quality Council of India (QCI)

QCI came into existence in the year of 1997. It is a self-governing body by the Government of India jointly with the Indian industry to establish and operate accreditation structure in the area of conformity assessment covering bodies offering certification, inspection, testing, registration services etc. The disciplines include; Environment, Food Safety, Health, Information Security, Occupational Health & Safety, Quality Management.

QCI is responsible for scrutinize and govern the National Quality Campaign and to supervise efficient function of the National Information and Enquiry Services. QCI play a vital role in improving quality competitiveness of Indian products and services. It also endows with strategic course to the quality movement in the country by setting up recognition of India conformity assessment system at the global level.

Vision:

“To be among the world’s leading national apex quality facilitation, accreditation and surveillance organizations, to continuously improve the climate, systems, processes and skills for total quality”.

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QCI Mission:

“To help India, achieve and sustain quality and reliability in all areas of life, work, environment, product and services at individual, organizational, community and societal levels.”

Structure of QCI:

QCI is governed by a Council of 31 members with equal representations of government, industry and consumers. Chairman of QCI is appointed by the Prime Ministers office on recommendation of the government and industry.

Council is the apex body which is responsible for framing the line of action, general policy, formation and monitoring of various mechanisms of QCI including the accreditation boards with objective to ensure transparent and credible accreditation system. The Council through a Governing Body monitors the progress of activities and appeal mechanisms set by the respective boards.

QCI functions through the executive bodies (boards! committees) that implement the strategy, policy and operational guidelines set by the Quality Council of India with a view to achieve international acceptance and recognition of various components including the accreditation systems.

Each Board has a Chairman nominated by the QCI Chairman. The Boards comprise of representative volunteer group of stakeholders who guide and pursue the activities and progress of the respective Boards.
Objects of Quality Council of India:

The objects for the Quality Council of India are established such as:

a) To promote, coordinate, a national quality initiative for building confidence and services and for improving competitiveness;

b) To raise quality consciousness in the country through National Quality Campaigns, conducting seminars and other forms of promotion; and by promoting business excellence through, for example, quality award scheme, holding competitions etc;

c) To establish National Accreditation Boards, suitable for the country and in accordance with the relevant international standards and guides for:

   i) Bodies certifying products and quality management systems and carrying out inspection

   ii) Registration of Quality Management Personnel and Training Organisations;

   iii) Testing and Calibration laboratories, and
iv) Monitoring and implementation of the above

d) To encourage industrial/applied research and development in the field of quality and dissemination of its result in relevant publication including professional and trade journals;

e) To ensure effective functioning of National Information and Enquiry service on Standards and Quality;

f) To establish an accreditation service for bodies certifying environment and safety management systems;

g) To encourage the development and third party certification of quality management systems including environment and safety management systems at the organization level, for goods and services;

h) To facilitate upgradation of testing and calibration facilities and laboratories and to encourage the development of a national laboratory accreditation system for global recognition and for accessibility of measurement and test results;

i) To raise the level of quality training for personnel engaged in quality activities including assessors;

j) To develop and operate an appeal mechanism to deal with unresolved complaints;

k) To enter into arrangements with similar foreign agencies and develop procedures for exchange and transfer of technologists and technologies, study tours, training in specialized areas of quality technology, conducting of joint projects, providing technical assistance in the establishment of quality consciousness and for other matters consistent with aims and objectives of Society;
1) To collect and disseminate information in regard to research and development besides industrial matters with regard to quality.

**National Accreditation Board for Hospitals and Health Care Providers (NABH)**

NABH is a constituent board of QCI\(^76\), set up with cooperation of the Ministry of Health & Family Welfare, Government of India and the Indian Health Industry. This Board will cater to the much desired needs of the consumers and will set standards for progress of the health industry. This Board while being supported by all stakeholders including industry, consumers, government, will have full functional autonomy in its operations.

The NABH standards have been laid down keeping the Indian ethos and working environment in mind. The main focus of the standards is on patient, employee, visitor and environment safety. These standards are at par with the standards laid down for accreditation of hospitals elsewhere in the developed and developing countries. These standards are applicable to multidisciplinary hospitals and single specialty hospitals providing secondary, tertiary and quaternary levels of health / medical care. They are not applicable to primary health care institutions and rural hospitals. All the standards are core standards and no optional standards have been laid down. The compliance with these standards indicates that the hospital has patient, staff and is environment friendly.

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