

DISSERTATION PROJECT

Measuring Gap in Patient Perception and Service
Expectation of Hospital Services: A Study of PD Hinduja
Hospital and Medical Research Centre, Mumbai

Presented by-
Dr Ravisha Bharati

Guided by-
Col. (Dr.) Ashok Kaushik

Service Marketing

- Service marketing is closely related to experience marketing which starts from meeting patient expectation and delivering personalized experience.
- Service is the part of the product or the full product for which the patient is willing to see value and pay for it.
- A valued relationship is one that is financially profitable in the long run.
- **Value Creation** through Service Quality is of utmost importance as poor quality places the hospital at a competitive disadvantage.

The 7 Ps of Services Marketing

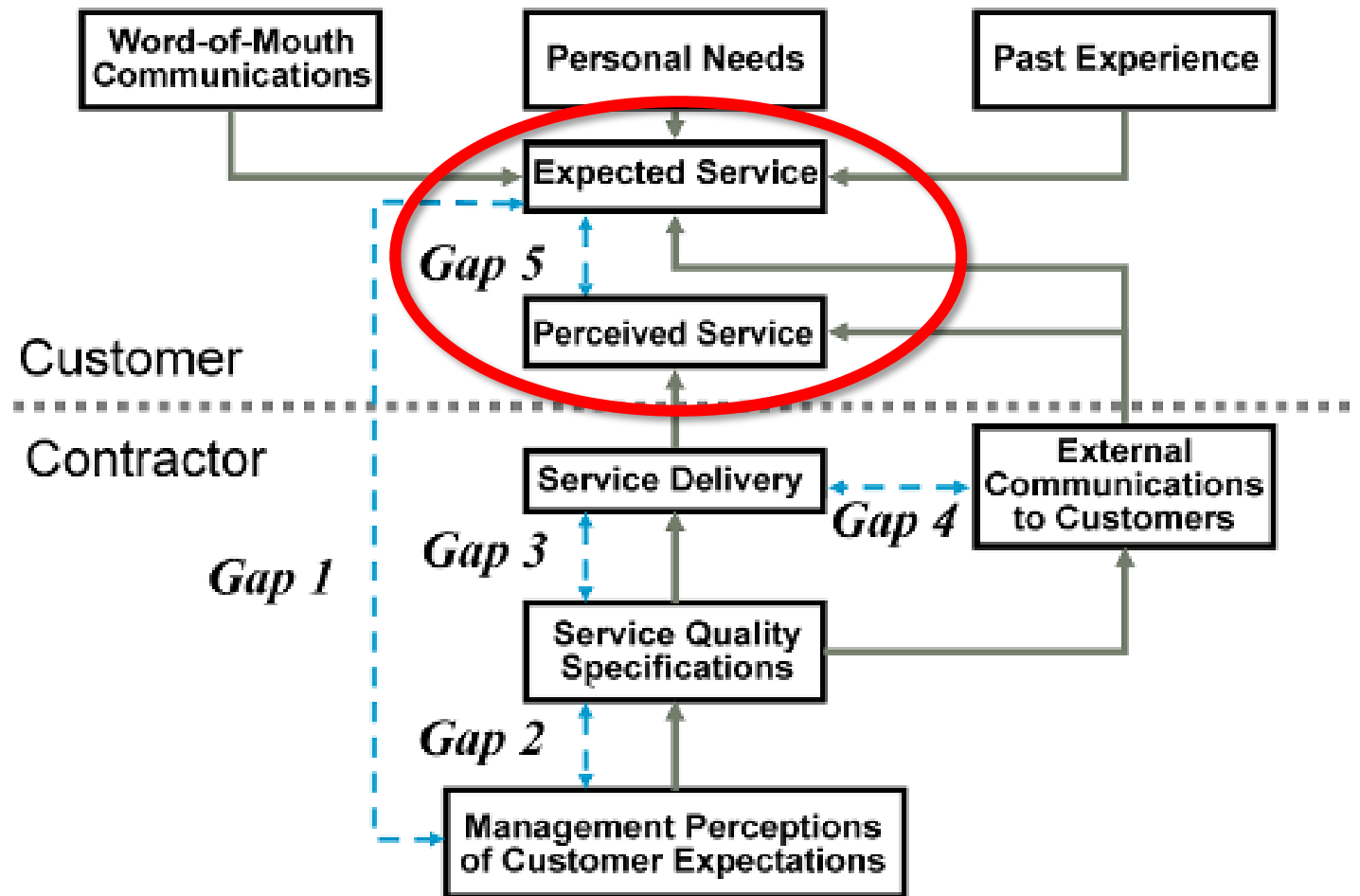


Fig 1-People, Physical evidence and Process are parts of the extended Service Marketing Mix

INTRODUCTION

- Service quality is defined as the overall assessment of a service by the customers, or the extent to which a service provided by the hospital meets customer's needs or expectations involving **People, Physical evidence and Process**
- According to Parasuraman it's a global evaluation or attitude of overall excellence of service.
- He referred to his model as **SERVQUAL** Model or **Service Quality Gap Model** and designed a **standardized scale** that measures expectations and perceptions about critical service quality dimensions.
- This is influenced by the customer personal needs, past experience, word-of-mouth and service provider's communications.

GAP 5 of the SERVQUAL Gap Model- Customer satisfaction framework



Two Facets of Healthcare Quality

Technical Quality

- Refers to the accuracy of medical diagnosis and procedures, and is generally comprehensible to the professional community but not to the patients

Functional Quality

- Patients essentially perceive **functional quality** as the manner in which the services are being delivered. Service quality largely determines consumer satisfaction and consumption patterns.

NEED

- **Competition** in the contemporary service business is intensifying, and it is now important for service companies to understand service quality as a factor of marketing competitiveness. Hence providing **superior service quality** and achieving customer satisfaction is important keeping in mind the **resource constraints** existing in the hospital

Researchers have proven that providing good service quality to customers-

- Retains them
 - Attracts new ones
 - Enhances corporate image
 - Positive word-of-mouth
 - Recommendation
 - Survival and profitability
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- A good quality service not only makes the patient happy and satisfied but also **influences the next buying decision and modifies his buying behaviour** in same segment from same quality service providers that help in their **retention**.
 - It is widely considered as a driver of **corporate marketing and financial performance**

AIM

- The aim of the project is to identify the level of service quality in the hospital by measuring consumer perception and expectation during **service encounter** towards critical parameters of service quality that can be used as a competitive advantage.
- The project also attempts to formulate a strategic vision to enable the hospital to deliver higher levels of patient satisfaction, hence retention.

OBJECTIVES

- To determine what constitutes service quality in the context of the hospital.
- To measure the difference between expectation and perception among the patients visiting P D Hinduja National Hospital and medical research centre
- To give relevant recommendations corresponding to the gap and closing it, prioritisation and remedial action.

METHODOLOGY

- i) **KEY RESEARCH QUESTION-** What is the gap that exists between the Perception and expectation of the patients getting admitted to IPD services at PD Hinduja Hospital and Medical research?
- ii) **RESEARCH DESIGN-** Exploratory study design- used for a problem which demands priorities. Helps in formulating their problem clearly
- iii) **SETTING-** P D Hinduja Hospital and Medical Research centre, Mumbai
- iv) **STUDY POPULATION-** Inclusion criteria- Patients who have been hospitalized in the Hospital at least ones in the last 2 days
Exclusion Criteria- OPD patients who have never been hospitalised
- v) **RESEARCH INSTRUMENT**
 - The scale containing all the 22 numbers of statements of SERVQUAL instrument developed by **Parasuraman** with a wide array of specific service characteristics for primary data survey was administered
 - SERVQUAL is a standardized service quality tool.
 - The SERVQUAL instrument has been empirically evaluated in the hospital environment and has been shown as **reliable and valid instrument in that setting.**

v) RESEARCH PROCEDURES APPLIED-

- For capturing responses of various consumer towards service quality in the hospital a **SERVQUAL scale** measuring **5 critical service quality** parameters -

I) Tangibles- Appearance of the physical facility, equipment, communication material and personnel

II) Reliability- Ability to perform promised service dependably and accurately

III) Responsiveness- The willingness to help customers and to provide prompt service

IV) Assurance- The knowledge and courtesy of employees and their ability to inspire trust and confidence in the customers

V) Empathy- The caring individualized attention a hospital provides its customers

- Respondents had to mark their expectation and perception on a scale of 1 to 7 .Each item was rated on a seven-point **Likert scale** anchored at the numeral 1 with the verbal statement “Strongly Disagree” and at the numeral 7 with the verbal statement “Strongly Agree”.

CODE	PARAMETERS	SCORE						
TANGIBLES								
T1	Extent to which the location of the hospital is convenient and accessible	1	2	3	4	5	6	7
T2	Physical facilities and the infrastructure in hospital are visually appealing	1	2	3	4	5	6	7
	Usefulness of signs, signage's, brochures and flyers provided in the hospital							
T3		1	2	3	4	5	6	7
T4	Level of availability of the medical equipment and there working condition	1	2	3	4	5	6	7
T5	Neat appearance of staff	1	2	3	4	5	6	7
T6	Clean and hygienic environment/Housekeeping	1	2	3	4	5	6	7
T7	Reasonable waiting time	1	2	3	4	5	6	7
RELIABILITY								
R1	Sympathetic attendance to patients	1	2	3	4	5	6	7
R2	Dependable IPD services	1	2	3	4	5	6	7
R3	Punctuality of IPD staff	1	2	3	4	5	6	7
R4	Accurate IPD records	1	2	3	4	5	6	7
RESPONSIVENESS								
RS1	Staff always willing to help	1	2	3	4	5	6	7
RS2	Extent to which the hospital staff address your needs	1	2	3	4	5	6	7
RS3	Promptness of service	1	2	3	4	5	6	7
ASSURANCE								
A1	Can trust the IPD staff	1	2	3	4	5	6	7
A2	Adequate staff available on service	1	2	3	4	5	6	7
A3	Feeling of safety and security while in the hospital	1	2	3	4	5	6	7
A4	Courtesy and politeness of the staff	1	2	3	4	5	6	7
EMPATHY								
E1	Individual attention given to you	1	2	3	4	5	6	7
E2	Positive attitude on receiving feedback/complaint	1	2	3	4	5	6	7
E3	Attendants were treated properly	1	2	3	4	5	6	7
E4	Food served was hygienic	1	2	3	4	5	6	7

Fig. 2:
STUDY INSTRUMENT

Standardized SERVQUAL
scale developed by
Parasuraman

vii) DURATION OF THE STUDY- 4th Feb to 3rd May 2019

viii) SAMPLE SIZE- 100 patients

ix) SAMPLING TECHNIQUE- Convenience sampling

xi) STATISTICAL METHODS APPLIED

The Paired Sample t Test is a Parametric test.

- The paired sample t test is a statistical procedure and a type of hypothesis test which allows to compare means that are from the same related units,. The purpose is to determine whether there is statistical evidence for the observation to be true.
- **A P value (calculated probability) less than 0.05 is said to be statistically significant.**

Null Hypothesis

There is no significant positive relationship between patient perception and service expectation for the parameter.

Software used for Data Analysis-

The latest version of IBM SPSS version 22.

As pulling data from excel makes analysing data clean and easy in SPSS and is variable specific.

xii) ETHICAL CONSIDERATION

Verbal Consent was taken from the participants before administrating the questionnaire. Any information received from any individual confidentially without disclosing the respondents identity.

No part of the literature that has contributed in any way to the research will be modified.

<u>Parameters</u>	<u>Expectation</u>	<u>Perception</u>	<u>Service Gap Score(P-E)</u>	<u>P value</u>	<u>Significance</u>
Tangibles					
T1 - Extent to which the location of the hospital is convenient and accessible	6.74	5.24	-1.5	<0.001	Statistically significant
T2- Physical facilities and the infrastructure in hospital are visually appealing	6.5	6.04	-0.46	<0.001	Statistically significant
T3 - Usefulness of signs, signage's, brochures and flyers provided in the hospital	6.68	6.38	-0.3	<0.001	Statistically significant
T4- Level of equipment availability and working condition	6.66	6.3	-0.36	0.004	Statistically significant
T5-Neat appearance of staff	6.5	6.34	-0.16	0.015	
T6-Reasonable Waiting time (less than 30 mins)	6.4	6.7	-0.3	0.229	
Reliability					
R1-Sympathetic attendance to Patient	6.52	6.62	-0.3	0.08	
R2- Dependable IPD Services	6.24	6.24	0	0.09	
R3- Punctuality of IPD Staff	6.72	6.52	0.12	0.07	
R4- Accurate IPD Services	6	6	0	0.019	
Responsiveness					
RS1- Staff always willing to help	6.64	5.5	-1.14	<0.001	Statistically Significant
RS2- Extent to which the hospital staff address your needs	6.64	6.34	-0.3	0.08	
RS3- Promptness of service	6.96	6.02	-0.94	<0.001	Statistically Significant
Assurance					
A1- Can trust the IPD staff	6.46	6.2	-0.26	1.12	
A2-Advequate staff available on service	6.58	6.28	-0.3	0.9	
A3-Feeling of safety and security	6.74	6.53	-0.22	1.03	
A4-Courtesy and Politeness of the staff	6.58	6.24	-0.34	0.045	
Empathy					
E1-Individual attention given to you	6.56	6.84	0.28	0.299	
E2- Positive attitude on receiving feedback	5.76	5.96	0.2	0.004	
E3- Attendants were treated properly	6.18	5.88	-0.3	0.009	
E4- food served was hygienic	6.72	6.52	-0.2	0.015	

RESULTS

- A little above half of the respondents being female (53%). The respondents were mostly between the age of 21 and 45 (72%)
- **The E values were consistently high** for all the items, the mean scores being above six for all items except the two items of 'staff always willing to help' and 'readiness for personal attention.'
- The **highest expectation** value was observed against the item '**prompt response to request**'
- Quality gaps exist along all five dimensions of the survey instrument, with the gap across the dimensions of '**tangibles**' and '**responsiveness**' being statistically significant at < 0.001 value.
- However, the quality gap showed positive value across the items of 'individual attention to patients' and 'readiness for personal attention' or **Empathy**.
- Service quality gaps across 20 of the 22 items of the survey instrument demonstrated a negative value between perceptions and expectations.

DATA INTERPRETATION

- Statistically significant Service quality gap across the dimension of '**tangibles**' was observed to be statistically significant at < 0.001
- The major issue related to tangibles being parking and traffic outside of the hospital which makes it difficult for the patients and relatives to reach the hospital(T1).
- T2-sical facilities and the infrastructure in hospital are visually appealing
- T3 - Usefulness of signs, signage's, brochures and flyers provided in the hospital
- Statistically significant service quality gap was also observed across the dimension of '**responsiveness**', for willingness to help with wide gaps between expectation and perception observed against the necessity of prompt service and prompt response by IPD staff
- It may also be interpreted as
 - 1) **Inadequate staffing** at the IPD
 - 2) An issue with the **communication channel** being used for the communication between the staff patient and the attendant.
 - 3) **Alarm fatigue** experienced by the attendants and the nurses(Further studies to be carried out)
- The dependable and helpful IPD staff as observed through the study is not being able to deliver prompt service, though willing to do so.
- It was comforting to observe reasonable convergence in E/P scores across the dimension of '**Empathy**', indicating careful, compassionate attendance by IPD staff. Positive gap score was also observed across the items of 'individual attention to patient' and 'readiness for personal attention', which point towards consumer delight across these dimensions.

Further observation

- As the hospital is adjacent to a school which makes parking space negligible as well as a number of abandoned cars parked on the adjacent lane.
- The manpower for the general floors have been examined and was found to be 1: 9 on an average for the general wards which is more than the standard which is 1:6
- Currently **Unidirectional pagers** are being used by the attendants and the nursing staff which have issues related to **network** and battery life.
- There have been issues of network loss on the **peripheral areas of wards 9th and 12th**
- Despite having a buzzer, the display that is currently being used on the computer is complex and has multiple fields which makes it difficult to keep a track and might result in the nurses missing out on the calls from the patient, which is outdated as compared to other hospitals.

RECOMMENDATIONS

Code	Parameter	Recommendation
T1	Extent to which the location of the hospital is convenient and accessible	•Proposal to acquire new vertical parking space in the vicinity of the Hospital and exclusion of abandoned cars.
T2	Physical facilities and the infrastructure in hospital are visually appealing	•Better lighting and walls painted with contrasting colours to eliminate dull appearance
T3	Usefulness of signs, signage's, brochures and flyers provided in the hospital	•Information about e brochures should be communicated •Signage's near lifts
RS3	Promptness of service	• The perfect method of communication would be Easily accessible, Allow for rapid message transmission Require minimal network usage Be immune to network failure. • Installation of network booster on the peripheral wings 9th and 12 th of floor and network mapping. • Revise <u>Nursing Alert System</u> in the hospital. •Ascom, Seimens AG and Azure Healthcare are leading players in new innovative nursing alert Systems which fulfils the mentioned criteria.

CONCLUSION

- Tangibles and Responsiveness need special attention
- There are many possible ways to disappoint customers through service quality failures in high-contact situations
- The high expectations scores, where the mean scores across majority of the items of the survey instrument are **above six in a seven-point scale** possibly reflect the new paradigm of **increasing consumer expectations** and demand for high quality care by the consumers of service hospitals.

IMPLICATION

- The study has significant implications for the hospital management, as service quality gaps along with their specific dimensions if correctly identified, can lead to focused improvement efforts in the hospital IPD services.

THANK YOU