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Influence of Perceived Service Quality on Patient Satisfaction of Private Hospitals in Jalandhar

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Abstract:
In today's competitive environment, private hospitals are accomplishing a marvelous growth particularly in India. Quality Health care conveyance is a pivotal indicator in measuring the development challenges of each nation The study examined the influence of perceived service quality on patient satisfaction at the three private hospitals in Jalandhar. Apex Hospital, Patel Hospital and Orthonova Hospital are the leading private hospitals in the city of Punjab i.e. Jalandhar. Patient satisfaction measured by taking consideration at human aspects of service (Reliability, Responsiveness, Assurance and Empathy) with one and only component of the instrument being given to the non-human part of care rendered (Tangibility). This study also aims to investigate the influence and the relative importance of the five perceived service quality dimensions on patient satisfaction. The Servqual instrument has five main dimensions that were measured by 22 sets of statements. Data was collected using closed ended Servqual questionnaires. Of the total 240 questionnaires conveyed 210 were completed, returned and analyzed. Descriptive analysis, Correlation, Multiple Regression analysis, one-way ANOVA and One sample t-test techniques were employed for the analysis of the study. Findings indicated that the expectation scores were significantly different from perception scores at the $p < 0.05$. All the service quality differences (Service Quality= Expectation score – Perception score) were positively scored which demonstrated that the patients were not satisfied in all perceived service quality dimensions provided by the private hospitals in Jalandhar. Of the five dimensions Empathy had the largest service gap followed by Tangibility and Responsiveness e.g. personal care, physical appearance and prompt service.

Keywords: *Expectation, empathy, perceived service, perception.*

1. Introduction

A service is not something that is implicit a production line, delivered to a store, put on a rack and afterward taken home by a customer. A service is an element living process. A service is that which is executed in the interest of and regularly with the involvement of the customers. (Shostack and Kingman, 1991). The developing importance of the part that services play in both the economy in general and associations specifically cannot be over- stressed. (Young *et al.*, 2002). Service has four fundamental characteristics:

1) Intangibility
2) Inseparability
3) Perish ability
4) Heterogeneity

Features of Unique service	Modern definition	Marketing problems
Intangibility	• Services that cannot be seen, felt, tasted, smelled and heard before purchase • They cannot be possessed	• Cannot be stored • Cannot be protected through patents • Difficult to set prices • Cannot be displayed readily and communicated
Inseparability	• It is related to production and consumption • Services cannot be separated from its providers	• Difficult to centralised mass production • Consumers involved in the production • Other Consumers included in the production
Heterogeneity	• Variability in the quality of the service • Quality of service depends on who provides them	• Difficult to control quality and standardisation
Perish ability	• Services cannot be stores for later use of sale	• Services unable to store for future use

Table 1: Characteristics of Service

Perceived Service Quality is the establishment for services marketing on the grounds that the core or center product being marketed is a performance. Thus, the performance is the product and is what the customers purchase. (Berry and Parasuraman, 1991). Service quality is characterized as customer's perception of how well a service exceeds or meets their expectations (Zeithaml et. al, 1990). Service quality is judged not by organizations but by the customers. Service quality aims to understand and determine the perceive quality of the services provided to the customers. The disconfirmation idea of the model demonstrated not only that the perceived service quality is a capacity of the experiences of the patient but also the expectations of patient have an influence on the perception of the service quality. Therefore, the quality perception of a service is the outcome of a comparison between expectations and perceptions of a patient.

Service Quality assumes a crucial role to the general long term achievement of any healthcare service organization that gives some sort of medical services to the patients. Surveying service quality is a testing task. An outline on the conceptual framework is given in the graphical illustration.

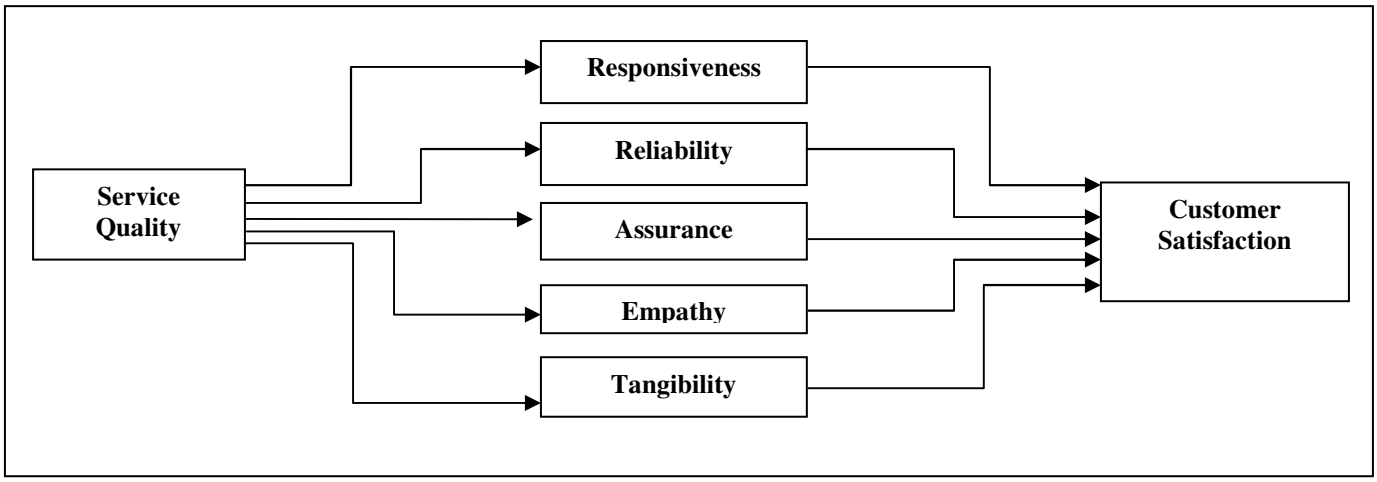

Figure 1: Research Model

In the overview particular items are created to estimate different five dimensions of perceived service quality. These five dimensions in turn then are utilized to survey the influence on patient satisfaction.

The focal center of the gaps model is the customer gap i.e. the gap between the patient expectations and perceptions. Expectations are the reference focuses patients have coming into a service experience. Perceptions reflect the service as really gained. The thought is that organizations will need to close this gap- between what is expected and what is received- to satisfy their patients and assemble long term associations with them.

There are five Gaps of Servqual which have unique roles to determine the service quality of the hospitals.

- GAP 1: Gap between the management perceptions of the consumer expectations and the actual consumer expectations:
- GAP 2: Gap between the service quality specification and the management perceptions of the consumer expectations:
- GAP 3: Gap between the actual service quality delivered and the service quality specifications:
- GAP 4: Gap between the external communications to consumer and the service delivery:
- GAP 5: Gap between the expected service and the perceived service.

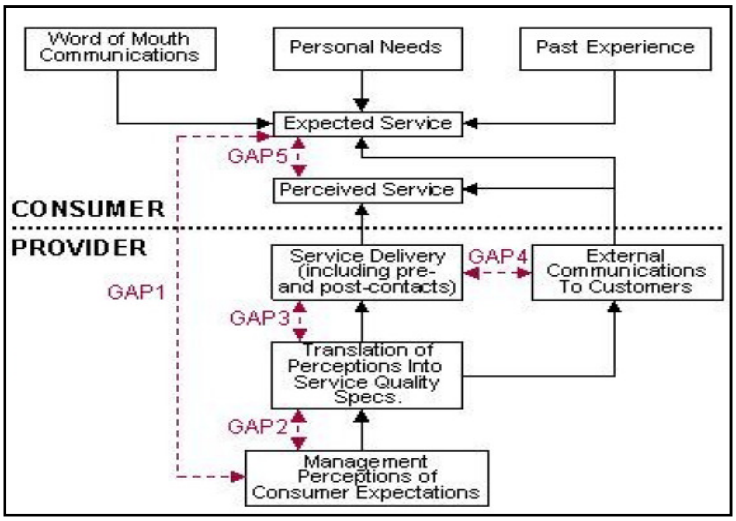

Figure 2: Servqual Gap Analysis Model

2. Review of Literature

Naik et al. (2013) studied that the elements of the services quality in the India private hospitals. This paper contributed in the literature on the health care sector by investing the impact of the word of mouth on the customer satisfaction. Correlation and regression analysis was used to analyze the impact of the Service quality and the Word of mouth on the satisfaction of the patients. Findings revealed that the patient's satisfaction was attracted by the service quality provided by the hospital sector.

Khanchitpol and Johnson (2013) determined that the service quality dimensions were used in judging the services quality of the hospital. The purpose of this study was to develop a tool for measuring perceived service quality for private hospitals. The researchers used the SERVQUAL instrument in order to evaluate the applicability and usability of this service quality attributes. The findings indicated that SERVQUAL's five service quality dimensions had a significant influence on the overall service quality. Responsiveness had the most influence; followed by empathy, tangibles, assurance; and reliability.

Malviaya and Amjeriya (2012) evaluated that the Servqual measurement scale of the service quality was used in the study to measure and examine the service quality in a hospital environment. The data was analyzed by using Reliability, Validity, Pearson Correlation, Mean, Standard Deviation and Multiple Regression. The result revealed that the hospital service dimensions have positive correlation with the patient satisfaction which showed the importance and relevance of the service quality (Servqual).

Manjali and Hashem (2012) measured the expected and actual quality of the medical services in the government hospitals in the Amman city from the perspective of the patients to attain the objectives of this research. A structured questionnaire was developed for collecting the data. This research showed that there was a negative difference between the actual health services quality and the health services quality expected by the patients for the benefit of actual and expected services. There was no effect of gender, age, experience and education level variables on assessing the actual medical services of the patients from the hospitals in the city Amman.

2.1. Objectives

- To evaluate the extent to which each dimension of perceived service quality determines the patient satisfaction.
- To examine whether patients characterized by varying demographic variables (gender, age, income) have different preferences with respect to the dimensions of perceived service quality that focus their overall level of satisfaction.
- To analyze the gap between the expectation and perception of the patients toward the perceived service quality of the three private hospitals in Jalandhar.

2.2. Hypotheses

- $H_0$1: There is no significant difference in the five dimensions of perceived service quality between genders.
- $H_0$2: There is no significant difference in the five dimensions of perceived service quality between age groups.
- $H_0$3: There is no significant difference in the five dimensions of perceived service quality between income groups.
- $H_0$4: There is no significant difference between patients' expectation of quality services and their perception of the services received at three private hospitals.
- $H_0$5: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are not related to patient satisfaction at three private hospitals.
- $H_0$6: The five dimensions of perceived service quality on three private hospitals are not perceived positively by the patients.

3. Research Methodology

→ Sources of Data**:** The study is descriptive in nature based on primary and secondary data.

→ Area of Sampling**:** The study is conducted in three Private Hospitals I.e. Apex Hospital, Patel Hospital and Orthonova Hospital in Jalandhar

→ Sample Size**:** A sample of 240 was collected for the study.

→ Sampling Technique**:** Non Random Sampling methods are used i.e. Quota Sampling, Convenience sampling and purposive Sampling techniques are used.

→ Statistical Tool**:** Service Quality Gap, Paired sample t-test, ANOVA Analysis, Correlation Analysis and Multiple Regression Model used to analyze the data.

→ Measurement and Scaling: Servqual scale is used to measure the influence on patient satisfaction with several aspects of the perceived service quality. This scale classified perceived service quality into five main constructs or dimensions which are given below:

- Tangibility
- Reliability
- Responsiveness
- Assurance
- Empathy

4. Reliability and Validation

4.1. Validation

The validity of the 48 items (22 items for expectation, 22 items for perception of the service quality and 4 items for patient satisfaction) in the questionnaire is examined through the experts. The construct and content validity of the questionnaire is discussed with the experts i.e. Faculty of the Lovely Professional University.

4.2. Reliability

The Cronbach's Alpha coefficients for expectation dimensions, perception dimensions, patient satisfaction and overall dimensions of service quality are 0.835, 0.895, 0.864 and 0.824 respectively which are more than 0.6 showing that the survey instrument is sufficiently reliable.

5. Data Analysis and Interpretation

5.1. Descriptive Analysis

Descriptive statistics are used to describe or investigate the characteristics of the patients in quantitative terms.

5.1.1. Patients' Demographic Characteristics

Out of 210 patients, majority of the patients are male i.e. 117 (55.7%) and rest 93 participants are female i.e. (44.3%) of the total sample.

In terms of age groups, majority of the patients (33.8%) i.e. 71 are between 36-45 years old, followed by 55 patients between 46-55 years old (26.2%), 34 patients between 26-35 years old (16.2%), 28 patients are above 55 years old and finally 22 patients are between 15-25 years old (10.5%) of the total sample.

Monthly income of the patients categorized them as 134 (63.8%) in between Rs. 20,000-40,000; 47 patients earn less than 20,000; 16 patients in between Rs. 40,000-60,000 and 13 patients are in between Rs. 60,000-80000.

5.1.2. Gender

Specifically, the hypothesis tested is as follow:

- H_0: There is no significant difference in the five dimensions of perceived service quality between genders.
- H_1: There is a significant difference in the five dimensions of perceived service quality between genders.

	Mean Statistics				
Dimensions	**Tangibility**	**Reliability**	**Responsiveness**	**Assurance**	**Empathy**
Male	4.36	4.35	4.37	4.52	4.34
Female	4.34	4.46	4.33	4.54	4.28
Total	4.35	4.40	4.35	4.53	4.31

Table 2: Five dimensions of Perceived Service Quality by Gender

The mean statistics reported in above table demonstrate that there are no economically vital differences between the genders. To evaluate this all the more altogether I perform tests for equality of variances and equality of means and do not find statistically significant differences. The outcomes are reported in below table:

		Levene's Test for Equality of Variances		**t-test for equality of Mean**				
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**
Tangibility	Equal variances assumed	1.86	0.23	-1.09	208	0.35	-0.07	0.06
	Equal variances not assumed			-0.08	192	0.35	-0.18	0.06
Reliability	Equal variances assumed	0.72	0.40	1.65	208	0.13	0.11	0.08
	Equal variances not assumed			1.63	197	0.12	0.11	0.08
Responsiveness	Equal variances assumed	0.43	0.59	-1.24	208	0.23	-0.09	0.06
	Equal variances not assumed			-1.27	198	0.23	-0.09	0.06
Assurance	Equal variances assumed	0.98	0.37	-0.67	208	0.54	-0.05	0.07
	Equal variances not assumed			-0.66	198	0.52	-0.05	0.07
Empathy	Equal variances assumed	0.54	0.62	-0.42	208	0.38	-0.04	0.07
	Equal variances not assumed			-0.41	203	0.38	-0.04	0.07

Table 3: Levene's Test for Equality of Variances

There is no difference in the five dimensions between male and female as to their judgement of the measurements of perceived service quality. p value > α (0.05), accept H_0 and reject H_1.

5.1.3. Age Groups

Specifically, the hypothesis tested is as follow:

- H_0: There is no significant difference in the five dimensions of perceived service quality between age groups.
- H_1: There is a significant difference in the five dimensions of perceived service quality between age groups.

	Mean Statistics				
	Tangibility	**Reliability**	**Responsiveness**	**Assurance**	**Empathy**
Under 15	4.41	4.55	4.27	4.45	4.36
15-25	4.38	4.26	4.35	4.47	4.24
26-35	4.34	4.44	4.31	4.52	4.24
36-45	4.38	4.51	4.45	4.35	4.44
46-55	4.21	4.11	4.32	4.64	4.32
Total	4.35	4.40	4.35	4.53	4.31

Table 4: Five dimensions of perceived service quality by age

I conduct a one-way ANOVA examination and test if the five perceived service quality dimensions significantly differ between age groups.

		Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Tangibility	Between Groups	.693	4	.173	.726	.575
	Within Groups	48.931	205	.239		
	Total	49.624	209			
Reliability	Between Groups	4.234	4	1.059	3.393	.002
	Within Groups	63.961	205	.312		
	Total	68.195	209			
Responsiveness	Between Groups	.869	4	.217	.946	.438
	Within Groups	47.055	205	.230		
	Total	47.924	209			
Assurance	Between Groups	.620	4	.185	.592	.669
	Within Groups	53.708	205	.362		
	Total	54.329	209			
Empathy	Between Groups	1.485	4	.371	.887	.473
	Within Groups	85.773	205	.418		
	Total	87.257	209			

Table 5: ANOVA- Dimensions of Perceived Service Quality between Age Groups

We can conclude that there is no significant difference in the five dimensions of perceived service quality between age groups as the p value of all five dimensions > α (0.01). Therefore, we can accept H_0 and reject H_1.

5.1.4. Income Groups

Specifically, the hypothesis tested is as follow:

- H_0: There is no significant difference in the five dimensions of perceived service quality between genders.
- H_1: There is a significant difference in the five dimensions of perceived service quality between genders.

	Mean Statistics				
	Tangibility	**Reliability**	**Responsiveness**	**Assurance**	**Empathy**
Less than 20,000	4.38	4.23	4.34	4.53	4.38
20,001 - 40,000	4.34	4.46	4.35	4.54	4.29
40,001 - 60,000	4.38	4.37	4.56	4.44	4.31
60,001 - 80,000	4.31	4.31	4.15	4.54	4.31
Total	4.35	4.40	4.35	4.53	4.31

Table 6: Five Dimensions of Perceived Service Quality by Income

I conduct a one-way ANOVA examination and test if the five perceived service quality dimensions significantly differ between income groups.

		Sum of Squares	df	Mean Square	F	Sig.
Tangibility	Between Groups	.110	3	.037	.153	.228
	Within Groups	49.514	206	.240		
	Total	49.624	209			
Reliability	Between Groups	1.937	3	.646	2.007	.114
	Within Groups	66.258	206	.322		
	Total	66.159	209			
Responsiveness	Between Groups	1.226	3	.407	1.803	.148
	Within Groups	46.698	206	.227		
	Total	47.924	209			
Assurance	Between Groups	.145	3	.048	.183	.906
	Within Groups	54.184	206	.263		
	Total	54.329	209			
Empathy	Between Groups	.295	3	.818	.233	.873
	Within Groups	86.962	206	.422		
	Total	87.257	209			

Table 7: ANOVA- Dimensions of Perceived Service Quality between Income Groups

From the above table, we can conclude that there is no significant difference in the five dimensions of perceived service quality between income groups as the p value of all five dimensions > α (0.01). Therefore, we can accept H_0 and reject H_1.

5.2. Service Quality Gap

The description, Paired Sample T-test and Correlation resulted using SPSS software is utilized to analyze the 22 paired Mean scores for expectation and perception items.

Specifically, the hypothesis tested is as follow:

- H_0:There is no significant difference between patients' expectation of quality services and their perception of the services received at three private hospitals.
- H_1:There is a significant difference between patients' expectation of quality services and their perception of the services received at three private hospitals.

Table 8(a) and 8 (b) results that the t-test is analyzed and compared the Mean scores. As sig. value (.000) < α (0.05), we can accept H_1 and reject H_0 by demonstrating a significant difference between the expectation and perception of the patients at three private hospitals.

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Expectation-Total	4.683	210	0.461	0.396
Perception-Total	4.325	210	1.273	0.172

Table 8(a): Paired Samples Descriptive Statistics

	N	Correlation	Sig.
Pair 1Expectation-Total & Perception-Total	210	0.268	0.000

Table 8(b): Paired Samples Correlations

GAP 5	N	Paired Differences					t	df	Sig. (two-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1 Exp-Total – Perc-Total	210	1.128	1.255	0.105	0.824	1.162	9.306	209	0.000

Table 8(c): Paired Samples T-Test (Exp=Expectation and Perc=Perception)

The outcomes presented in Table 13 (c) indicate that the difference between the two sets of Mean scores was unrealistic to happen by chance. For the comparison of the data, Eta squared was calculated. The Eta squared was figured using the below formula:

Eta squared = $t^2 / t^2 + N - 1$

= $(9.306)^2 / (9.306)^2 + 210 - 1 = 0.29$

The rules (proposed by Cohen, 1988) for interpreting this effect size are as: 0.01=Small effect, 0.06=Moderate effect, 0.14=Large effect. Given Eta squared value in this study of 0.29 for the differences between expectation and perception mean scores. We can presume that this was large effect. Thus, from the information, we can say that the paired sample t-test presumed that there is a significant difference between patient's expectations (M= 4.683, SD= 0.461) and patient's perceptions (M= 4.325, SD=1.273), t (210) = 9.306, p (.000) < .05 (two-tailed).

Statements	Mean Score		Service Gap
	Expectation Mean Score	Perception Mean Score	
Tangibility			
Statement 1	4.51	4.35	0.16
Statement 2	4.30	3.92	0.38
Statement 3	4.36	4.22	0.14
Statement 4	4.45	3.99	0.46
Average Mean for dimension	**3.52**	**3.29**	**1.14**
Reliability			
Statement 5	4.54	4.40	0.14
Statement 6	4.52	4.24	0.28
Statement 7	4.43	4.31	0.12
Statement 8	4.40	4.20	0.20
Statement 9	4.35	4.18	0.17
Average Mean for Dimension	**3.54**	**3.38**	**0.77**
Responsiveness			
Statement 10	4.37	4.36	0.01
Statement 11	4.52	4.05	0.47
Statement 12	4.45	4.41	0.04
Statement 13	4.63	4.25	0.38
Average Mean for Dimension	**3.59**	**3.41**	**0.90**
Assurance			
Statement 14	4.53	4.48	0.05
Statement 15	4.40	4.38	0.02
Statement 16	4.58	4.27	0.31
Statement 17	4.10	4.02	0.08
Average Mean for Dimension	**3.52**	**3.43**	**0.46**
Empathy			
Statement 18	4.57	4.31	0.26
Statement 19	4.08	3.86	0.22
Statement 20	4.28	4.13	0.15
Statement 21	4.50	4.27	0.23
Statement 22	4.47	4.16	0.31
Average Mean for Dimension	**4.14**	**4.38**	**1.17**

Table 9: Gap Analysis of the Study in Three Private Hospitals

The hospitals performance as perceived by the patients along with the expectations of the patients is shown in the above table.

5.3. Level of Perceived Service Quality

In order to test if the level of perceived service quality is measurably high or low in the different five measurements for the private hospitals.

Specifically, the hypothesis tested is as follow:

- H_0: The five dimensions of perceived service quality on three private hospitals are not perceived positively by the patients.
- H_1: The five dimensions of perceived service quality on three private hospitals are perceived positively by the patients.

Dimensions	Test Value=3.5					
	T	df	Sig. (2-tailed)	Mean Differences	95% Confidence Interval of the Difference	
					Lower	Upper
Tangibility	25.208	209	.000	.848	.77	.91
Reliability	22.7115.795	209	.000	.895	.82	.97
Responsiveness	29.235	209	.000	.852	.79	.92
Assurance	18.266	209	.000	1.029	.56	1.10
Empathy		209	.000	.814	.73	.90

Table 10: One Sample t-test

The above positive t-statics or p-values give strong statistical confirmation that all five dimension of perceived service quality on three private hospitals are generally perceived positively by the patients as p value of all dimensions (0.000) < α (0.05). Therefore, we can accept H_1 and reject H_0.

5.4. Patient Satisfaction

Specifically, the hypothesis tested is as follow:

- H_0: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are not related to patient satisfaction at three private hospitals.
- H_1: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are related to patient satisfaction at three private hospitals.

Patient satisfaction
Perceived service quality Pearson correlation.421**
Sig. (2-tailed) .000
N 210
Note: **. Correlation is significant at the 0.05 level (2-tailed).

Table 11: Correlation between Patient Satisfaction and Perceived Service Quality

This correlation matrix shows that the five dimensions of perceived service quality are positively and significantly related with patient satisfaction in three private hospitals [0.421(**), p value (0.000 < 0.05].

- Patient Satisfaction = $\beta_o + \beta_1$ (TANGIBILITY) + β_2 (RELIABILITY) + β_3 (RESPONSIVENESS) + β_4 (ASSURANCE) + β_5 (EMPATHY)

I conduct the analysis separately for the three private hospitals in the following:

5.4.1. Patient Satisfaction at Apex Hospital

Specifically, the following hypothesis is tested:

- H_0: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are not related to patient satisfaction at Apex Hospital.
- H_1: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are related to patient satisfaction at Apex Hospital.

5.4.1.1. Figuring out well the Model fits

The first table is the Model Summary Table. This table gives the R, R Square, Adjusted R Square and Standard Error of the Estimate, which could be utilized to figure out how well a regression model fits the information:

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the estimate**
1	.464[a]	.215	.154	.590
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance, Empathy				

Table 12: Multiple Regression Model- Patient Satisfaction at Apex Hospital

In this case, Patient satisfaction (dependent variable) value of 0.464 demonstrates a satisfied level of forecast. We can see from the worth of 0.215 that the independent variables (Five dimensions of perceived service quality) explain 21.50% of the variability of Patient satisfaction and remaining (78.50%) in unexplained.

The F- Ratio in the ANOVA table below tests whether the Regression Model is a fit for the information. This table indicates that the independent variables (Tangibility, Reliability, Responsiveness, Assurance and Empathy) statistically significantly foresee the Patient satisfaction, F (5, 64) = 1.986, p value (0.132 > α (0.05). we can accept H_0 and reject H_1.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Squares**	**F**	**Sig.**
1	**Regression**	6.098	5	.650	1.986	.132[a]
	Residual	22.244	64	.347		
	Total	28.342	69			
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance, Empathy						
b. Dependent variable: Patient satisfaction						

Table 13

The relationships among the variables were tested via multiple regression analysis are as follows:

- Patient Satisfaction = 2.83 + 0.04(TANGIBILITY) – 0.03 (RELIABILITY) + 0.24 (RESPONSIVENESS) + 0.22 (ASSURANCE) + 0.25 (EMPATHY)

5.4.2. Patient Satisfaction at Patel Hospital

Specifically, the following hypothesis is tested:

- H_0: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are not related to patient satisfaction at Patel Hospital.
- H_1: The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are related to patient satisfaction at Patel Hospital.

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the estimate**
1	.479[a]	.289	.205	.602
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance, Empathy				

Table 14: Multiple Regression Model- Patient Satisfaction at Patel Hospital

In this case, Patient satisfaction (dependent variable) value of 0.479 demonstrates a satisfied level of forecast. We can see from the worth of 0.215 that the independent variables (Five dimensions of perceived service quality) explain 28.90% of the variability of Patient satisfaction and remaining (71.10%) in unexplained.

The F- Ratio in the ANOVA table below tests whether the Regression Model is a fit for the information. This table indicates that the independent variables (Tangibility, Reliability, Responsiveness, Assurance and Empathy) statistically significantly foresee the Patient satisfaction, F (5, 64) = 7.737, p value (0.000 < α (0.05) i.e. this regression model is a good fit. We can reject H_0 and accept H_1.

ANOVA						
Model		**Sum of Squares**	**Df**	**Mean Squares**	**F**	**Sig.**
1	Regression	7.314	5	1.862	7.737	.000[a]
	Residual	24.863	64	.354		
	Total	32.177	69			
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance, Empathy						
b. Dependent variable: Patient satisfaction						

Table 15

The relationships among the variables were tested via multiple regression analysis are as follows:

- Patient Satisfaction = 1.85 + 0.18 (TANGIBILITY) - 0.48 (RELIABILITY) + 0.54 (RESPONSIVENESS) + 0.37(ASSURANCE) + 0.24 (EMPATHY)

5.4.3. Patient Satisfaction at Orthonova Hospital

Specifically, the following hypothesis is tested:

- H_0:The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are not related to patient satisfaction at Orthonova Hospital.
- H_1:The five dimensions of perceived service quality (Tangibility, Reliability, Responsiveness, Assurance and Empathy) are related to patient satisfaction at Orthonova Hospital.

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the estimate**
1	.735[a]	.587	.545	.459
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance and Empathy				

Table 16: Multiple Regression Model- Patient satisfaction at Orthonova Hospital

In this case, Patient satisfaction (dependent variable) value of 0.735 demonstrates a satisfied level of forecast. We can see from the worth of 0.587 that the independent variables (Five dimensions of perceived service quality) explain 58.70% of the variability of Patient satisfaction and remaining (41.30%) in unexplained.

The F- Ratio in the ANOVA table below tests whether the Regression Model is a fit for the information. This table indicates that the independent variables (Tangibility, Reliability, Responsiveness, Assurance and Empathy) statistically significantly foresee the Patient satisfaction, F (5, 64) = 30.921, p value (0.000 < α (0.05). we can reject H_0 and accept H_1.

ANOVA						
Model		**Sum of Squares**	**df**	**Mean Squares**	**F**	**Sig.**
1	Regression	22.497	5	6.311	30.921	.000[a]
	Residual	19.696	64	.809		
	Total	42.193	69			
a. Predictors: (constant), Tangibility, Reliability, Responsiveness, Assurance and Empathy						
b. Dependent variable: Patient satisfaction						

Table 17

The relationships among the variables were tested via multiple regression analysis are as follows:

- Patient Satisfaction = 1.76 + 0.14 (TANGIBILITY) + 0.39 (RELIABILITY) + 0.22 (RESPONSIVENESS) - 0.12 (ASSURANCE) + 0.13 (EMPATHY)

Unstandardized coefficients show what amount of the dependent variable (Patient satisfaction) changes with independent variables (Tangibility, Reliability, Responsiveness, Assurance and Empathy).

		Unstandardized coefficients		**Standardized coefficients**		
Model		**Beta**	**Std. Error**	**Beta**	**T**	**Sig.**
1	(constant)	1.76	0.38		1.98	0.05
	Tangibility	0.14	0.15	0.10	0.95	0.35
	Reliability	0.39	0.08	0.43	4.26	0.00
	Responsiveness	0.22	0.12	0.24	1.84	0.21
	Assurance	0.12	0.11	0.21	1.26	0.07
	Empathy	0.13	0.10	0.12	1.22	0.12
a. Dependent variable: Patient Satisfaction						

Table 18

The outcomes from above table show that the first variable (constant) demonstrates the constant of 1.76 which predicted value of perceived service quality while all other dimensions influencing patient satisfaction were constant at zero. Reliability dimension of perceived service quality has the greatest influence on patient satisfaction of all with the coefficient value of (0.39) and Responsiveness dimension ranged in the second position (0.22). While Empathy dimension comes in the third position with the coefficient value of (0.13). We can also conclude that each of the independent variables ((Tangibility, Reliability, Responsiveness, Assurance and Empathy) contribute to the model.

6. Conclusion

This study measured perceived service quality of private hospitals by using the Servqual Model. The analysis of distinctive subgroups (directed together for all three private hospitals) depending on gender, age and income showed that different patient groups have same preferences and quality aspects. In whole, from the private hospitals point of view, it appeared important to separate between socio-economic characteristics when attempting to optimize perceived service quality. The primary part of the empirical analysis indicated that the five dimensions of perceived service quality generally have a positive influence on patient satisfaction. In the Meantime, the findings from this research demonstrated that there is significant correlation between perceived service quality and patient satisfaction. For each of the private hospitals, my analysis gives bits of knowledge to corporate strategy as to which dimensions should be enhanced or improved to influence patient satisfaction. The findings revealed that the patient's expectation is slightly higher than patient's perception in three private hospitals at Jalandhar. It was also found that there is a huge service gap on Empathy, Tangibility and Responsiveness. This study also showed that Servqual instrument is valid and reliable to measure the perceived service quality in private hospitals of Jalandhar and enables the management to identify the areas from the patients' point of view that need improvement.

7. Limitations

- The study is geographically restricted to Jalandhar, Punjab. Convenience sampling technique was mainly used for selecting the respondents of the study.
- The sample is of 210 respondents but for better generalisation of the findings, sample size can be increased.
- Findings are based on sample survey through questionnaire method. Hence there is a scope for the respondents to be biased in this study.
- The findings of the study are purely an outcome of the responses given by the sample respondents of the three private hospitals considered for the study.

8. Scope for Further Research

This study is based on the SERVQUAL instrument dependent upon five dimensions of perceived service quality and a more extensive study may be conducted by including more dimensions like Andaleeb (2001) used Discipline, Communication, Baksheesh of other

than five dimensions of perceived service quality. Besides, this study is constraint to one city only. Therefore, it is required to create a comprehensive study keeping in mind the end goal to gain clear understanding about the service quality of the private hospitals. This will give more accurate response in regards to their perceptions about the services conveyed to them.

9. References

i. Berry, L., Parasurama, N., and Zeithaml, A. (1988), 'The Service – Quality Puzzle', Business Horizons**,** vol. 5, no. 2, pp. 35-43.
ii. Kang, G. and James, J. (2004), 'Service quality dimensions: An examination of Gronroos's service model', Managing Service Quality, vol. 14, no. 4, pp. 266-277.
iii. Khanchitpol, Y. and Johnson, W. C.(2013), 'Out-patient Service Quality Perceptions in Private Thai Hospitals', International Journal of Business and Social Science, vol. 4, no. 2, pp. 15-20.
iv. Majali, A.Y. and Hashem, A. (2012), 'Measuring the quality system of Health services from the patients' perspective', Journal of Psychology and Business, vol. 7, no. 1.
v. Malviya, R. K. and Amjeriya, D. (2012), 'Measurement of Service Quality in Health care organization', International Journal of Engineering Research and Technology, vol. 1, Issue 8.
vi. Naik, J. R., Anand, B. and Bashir, I. (2013), 'Healthcare Service Quality and word of mouth: Key drivers to achieve Patient Satisfaction', Pacific Business Review International, vol. 5, pp. 22-26.
vii. Shostack, G. L. and Kingman, L. (1991), 'How to Design Service. In: Congram, C. and Friedman, M. (eds). The AMA Handbook for the Service Industries. New York, NY: Amacom.
viii. Parasuraman, V.A. Zeithaml and Berry, L.L. (1998), 'SERVQUAL: A multiple item scale for measuring consumer perceptions of service quality', Journal of Retailing, vol.64, no.1, pp. 12-40.
ix. Young, L., Ryan, D., Pinnell R., Sheppard, S., Hosford, A., Cryer, N., Murphy, N., and Chung, J. (2002), 'Services Marketing**,** one in a series commissioned by The Chartered Institute of Marketing to contribute to the Eknowledge Centre, part of the Connect in Marketing initiative.