ANALYSIS SERVICE QUALITY AT HOSPITAL : A STUDY OF SVIMS HOSPITAL IN TIRUPATI

A.Madhu Kumar Reddy*   **Dr. K. G. Selvan****
Research Scholar, PRIST School of Business, Prist University, Vallam , Thanjavur.
***Professor, PRIST School of Business, Pirst University, Vallam, Thanjavuru.*

Abstract
Hospital is necessary to consider the visit rate of outpatient in order to increase hospital revenue. to create customer satisfaction, a hospital should be improve its service quality. The aim of the present study dimensions of service quality as determinants of customer satisfaction for establishment of patient loyalty need to consider. In this study four dimensions namely responsiveness, empathy, reliability and tangible were considered. The research is purely based on primary data, the data has been collected by 185 respondents by using structures questionnaire.

Keywords: Private, Hospital, Customer Loyalty, Service Quality.

Introduction
The last few decades, the number of private hospital providing health services in Tirupati has been growing, and the private sector health care services market has turned out to be a competitive environment Quality is such an important aspect that it is considered a really major concept in our real life. The vital need of increasing service organizations and advancing their services necessitates the measuring of service quality. The peer competitions have made the hospitals to provide superior services in order to retain in the competitive environment. Hospitals provide the various types of services but with different quality if the therefore quality can be considered as one of the important as one of the important strategy to create the competitive advantage.

Ghobadian. hypothesize that most of the service quality definitions fall within the "customer led" groups. Juran elaborates the definition of customer led quality as "features of products which meet customers' needs and thereby provide customer satisfaction." As service quality relates to meeting customers' needs, we will be looking at "perceived service quality" in order to understand consumers. Grönroos (1984) and Parasuraman (1985) looks at perceived quality of service as the difference between customers' expectation and their perceptions of the actual service received. Other researchers look at perceived service quality as an approach. Arnauld et al., defined perceived quality "whether in reference to a product or service" as "the consumers' evaluative decision about an entity's overall superiority in providing preferred benefits". Hoffman & Bateson defines service quality as an attitude "formed by a long-term, overall evaluation of a performance". Attitude is defined as "a consumer's overall, lasting assessment of a concept or object, such as a person, brand and service." Service quality as "an attitude" is consistent with the views of Parasuraman, & Sureshchandar, (2002).

Review of Literature
Kumar Dey (2010)introduced a quality management framework by combining cause and effect diagram and logical framework. An intensive care unit was identified for the study. They found that patients improved infrastructure, state-of-the-art equipment, well maintained facilities, IT-based communication, motivated doctors, nurses and support staff, improved patient care and improved drug availability were considered the main project outputs for improving performance. The proposed framework was used as a continuous quality improvement tool, providing a planning, implementing, monitoring and evaluating framework for the quality improvement measures on a sustainable basis. **RituNarang (2010)**applied 20-item scale and distributed to 500 users of health care centers comprising a tertiary health center, a state medical university and two missionary hospitals in Lucknow, India. The scale was found to be reliable to a great extent with an overall Cronbach alpha value of 0.74. "Health personnel and practices" and "health care delivery" were found to be statistically significant in impacting the perception. Respondents were relatively less positive on items related to "access to services" and "adequacy of doctors for women". The tertiary health center was rated poorer than the medical university and missionary hospitals.. Policy makers need to consider the requirements and opinions of patients to effect substantial change and signi   cant improvement in the quality of their health care services for better and increased utilization of their services. The access to health care services requires immediate and urgent attention from the policy makers. In addition, they need to improve upon the number of rooms, reception and follow-up facility along with availability of drugs and doctors for women. This tool may be applied for qualitative assessment of the services of health care programmes as well as health care centres of India. **SandipAnand(2010)**carried out the follow-up survey in Tamil Nadu, Maharashtra, Bihar and Jharkhand. Dimensions include: service proximity, doctor availability, waiting time, medicines, facility cleanliness, dignified treatment, privacy, service affordability and treatment effectiveness. Findings indicated that doctor availability, waiting time, cleanliness, privacy and affordability at private health facilities enhance the probability that a health facility will be used for any reproductive

Research Paper   *IJBARR*
Impact Factor: 4.729   *E- ISSN -2347-856X*
Refereed, Listed & Indexed   *ISSN -2348-0653*

health purpose Their ndings indicated that doctor availability, waiting time, cleanliness, privacy and affordability enhance private reproductive health service use at the combined four state level. At the combined states, medicine availability and treatment effectiveness at public health facilities enhances use. It appeared from their ndings that service quality norms were not properly established in any Indian public or private systems.Customer satisfaction is seen as being a critical factor of considerable importance in the process of building and maintaining relationships in medical services (Aagja and Garg, 2010; Gaur et al., 2011). Patient satisfaction with medical care is a multidimensional concept, with a 208 dimension that corresponds to the major characteristics of providers and services (Abdul Majeed, Habib and Rafiqul, 2011). Healthcare sector of a country needs special attentions from the government as quality of healthcare provides hope and relief to the patients and their dependents. It also helps to maintain a healthy human capital that contributes in the development of the country. Now quality has become an icon for customers while availing any services or buying a product and it is also a strategic advantage for the organizations to gain success and remain competitive in the market by delivering superior quality of services or products based on customer requirements (Irfan and Ijaz, 2011). The concept of patient satisfaction is not new. Patients are one of the main stake holders among the ever expansive modern world of medicine. Although the roles of patients and doctors have remained fixed, the contexts and backdrops have undergone tremendous changes overtime. Traditionally, there were no clear boundaries between patient care and patient cure. With changing patterns of disease, newer therapies and patients' perceptions, care and cure are now entirely separate concepts. A patient may never get cured but may feel very wellcared for and vice versa (Afshan, Ismail, Awais, Syed Zain, Diva and Sohail, 2012). Y.P.Pai and Chary [12] attempt to arrive at a consensus in the service quality dimensions drawing extensively on the literature, specifically applied to healthcare. The review paper identifies that the number of dimensional structure varies across the studies. The study describes and contrasts a large number of service-quality measurement constructs and highlights the usage of dimensions service quality. On examining the behavioural intentions of patients and their attendants in the hospital settings, Panchapakesan et al. [5] argue that service quality must be the focal point of healthcare providers to enhance the satisfaction of patients and their attendants to foster and perpetuate loyalty towards the service provider. Meanwhile, H2 stated that patient satisfaction has significant relationship with behavioural intention. The results showed that H2 was supported. This finding was consistent with the results of previous studies in which satisfaction plays a significant role in loyalty intentions (Gaur et al., 2011; Li et al., 2011; Tam, 2012).

Objective of The Study: The study is whether the dimensions of service quality significantly affect patient loyalty Private Hospitals in Tirupati.

Methodology
The data for the study has been collected from both primary and secondary sources. Research method used in the study is simple random sampling to collect the required information. The data was analyzed by using one sample t test and regression analysis. Data was collected through structured questionnaire by using five point likert scale. A sample of 185 respondents was selected for the study.

Hypothesis
1. Ho-The reliability have no significant positive relationship on patient loyalty.
2. Ho-The responsiveness have no significant positive impact on patient loyalty.
3. Ho-The empathy have no significant positive relationship on patient loyalty.
4. Ho-The tangibles have no significant positive impact on patient loyalty.

Analysis and Interpretation
Demographic
Analysis of demographic information revealed that 43 percent customers were aged between 40 years to 60 years and 58 percent of the respondents were males. Around 48 percent of the sample respondents had graduation and 64 percent were employed; out of the total sample 46 percent of the respondent's annual income was in between 200000 to 500000;

One-Sample t test
Table-1 One-Sample Statistics

Reliability	N	Mean	Std Deviation	Std Error Mean
when services will be performed	185	2.1081	0.75122	.05523
performance of medical and non-medical service	185	2.0486	0.77517	.05699
interest of personnel in solving patients' problems	185	2.0649	1.02475	0.07534
Carrying out of the services right at the first time	185	2.1243	1.00038	.07355

One Sample t-Test

Reliability	t	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
when services will be performed	-16.148	184	.000	.89189	1.0009	.7829
performance of medical and non-medical service	-16.693	184	.000	.95135	1.0638	.8389
interest of personnel in solving patients' problems	-12.412	184	.000	.93514	1.0838	.7865
Carrying out of the services right at the first time.	-11.906	184	.000	.87568	1.0208	.7306

Based on the results of the One sample t-test analysis at 95% confidence level, Mean values fall in positive side of rating (less than 3), t_{cal} value > t_{tab} value and p-value < = 0.05 for all the select responsiveness factors under study. Therefore Hypothesis H_0 - There are no significant effects of responsiveness on patient loyalty at SVIMS hospital in Tirupati is rejected, and H_a - There are significant effects of responsiveness on patient loyalty at SVIMS hospital in Tirupati is not rejected since one sample t-test successfully revealed a statistically significant values for responsiveness factors.

One-Sample Statistics

Responsiveness	N	Mean	Std Deviation	Std Error Mean
safety and security in interaction with personnel	185	1.7892	.82349	.06054
Willingness of personnel to serve patients	185	1.6919	.93087	.06844
Giving services at appointed time	185	1.4432	.75776	.05571
Error-free and fast retrieval of documents	185	1.6919	.93087	.06174

One Sample t-Test

Responsiveness	Test Value =3					
	t	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Safety and security in interactionwith personnel	19.999	185	0.000	1.21081	1.3303	1.0914
Willingness of personnel to serve patients	19.174	185	0.000	1.18378	1.3056	1.0620
Giving services at appointed time	27.943	185	0.000	1.55676	1.6667	1.4468
Error-free and fast retrieval of documents	19.114	185	0.000	1.30811	1.4431	1.1731

Based on the results of the One sample t-test analysis at 95% confidence level, Mean values fall in positive side of rating (less than 3), t_{cal} value > t_{tab} value and p-value < = 0.05 for all the select responsiveness factors under study. Therefore Hypothesis H_0 - There are no significant effects of responsiveness on patient loyalty at SVIMS hospital in Tirupati is rejected, and H_a - There are significant effects of responsiveness on patient loyalty at SVIMS hospital in Tirupati is not rejected since one sample t-test successfully revealed a statistically significant values for responsiveness factors.

Table-1 One-Sample Statistics

Reliability	N	Mean	Std Deviation	Std Error Mean
patients' interest at heart	185	1.6811	.95606	.07029
Individual attention to patients	185	1.8919	.92618	.06809
Knowledgeable personnel to answer patients'questions	185	1.6595	.87086	.06403

Research Paper
Impact Factor: 4.729
Refereed, Listed & Indexed

IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

Friendly and Polite dealing of personnel with patients	185	1.6757	.93988	.06910
Understanding the patient needs	185	1.8054	.86286	.06344

One-Sample Test

Reliability	t	df	Sig.(2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
patients' interest at heart	18.764	184	.000	1.31892	1.4576	1.1802
Individual attention to patients	16.273	184	.000	1.10811	1.2425	.9738
Knowledgeable personnel to answer patients'questions	20.937	184	.000	1.340554	1.4669	1.2142
Friendly and Polite dealing of personnel with patients	19.195	184	.000	1.32432	1.4607	1.1880
Understanding the patient needs	18.831	184	.000	1.19459	1.3198	1.0694

Based on the results of the One sample t-test analysis at 95% confidence level, Mean values fall in positive side of rating (less than 3), t_{cal} value > t_{tab} value and p-value < = 0.05 for all the select empathy factors under study. Hence Hypothesis H_0 - There is no significant influence of empathy on patient loyalty at SVIMS hospitals in Tirupati is rejected, and H_a - There is a significant influence of empathy on patient loyalty at SVIMS hospitals in Tirupati is not rejected since one sample t-test successfully revealed a statistically significant values for empathy.

One Sample Statistical

Tangibility	N	Mean	Std Deviation	Std Error Mean
Clean and comfortable of the hospital	185	1.6919	.97646	.07179
Visually appeal of physical facilities	185	1.3514	.62625	.04604
Up-to-date equipment	185	1.5622	.65746	.04834
Neat dressed personnel	185	1.5297	.69190	.05087

One-Sample Test

Tangible	Test Value =3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Clean and comfortable of the hospital	18.221	184	.000	1.30811	1.4497	1.1665
Visually appeal of physical facilities	35.807	184	.000	1.64865	1.7395	1.5578
Up-to-date equipment	29.746	184	.000	1.43784	1.5332	1.3425
Neat dressed personnel	28.903	184	.000	1.47027	1.5706	1.3699

Based on the results of the One sample t-test analysis at 95% confidence level, the Hypothesis H_0 - There is no significant influence of tangibles on patient loyalty at SVIMS hospital in Tirupati is rejected, and H_a - There is a significant influence of tangibles on patient loyalty at SVIMS hospital in Tirupati is not rejected since one sample t-test successfully revealed a statistically significant values for tangibles. Mean values fall in positive side of rating (less than 3), t_{cal} value > t_{tab} value and p-value < = 0.05 for all the select tangibles under study

Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.705[d]	.560	.549	.76520
2	.907[c]	.823	.820	.48266
3	.696[b]	.485	.479	.51942
4	.544[a]	.296	.292	1.93713

Research Paper
Impact Factor: 4.729
Refereed, Listed & Indexed

IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

1. Constant: Reliability, Responsiveness, Empathy, Tangible.
2. Constant: Reliability, Responsiveness, Empathy.
3. Constant: Reliability, Responsiveness.
4. Constant: Reliability.

ANOVA[e]

Model		Sum of Squares	ddf	Mean Square	F
1	Regression	2243.222	4	560.805	96.256.
	Residual	.000	180	.000	
	Total	2243.222	184		
2	Regression	1845.333	3	615.111	279.815
	Residual	397.889	181	2.198	
	Total	2243.222	184		
3	Regression	1087.978	2	543.989	85.701
	Residual	1155.243	182	6.347	
	Total	2243.222	184		
4	Regression	664.531	1	664.531	77.032
	Residual	1578.691	183	8.627	
	Total	2243.222	184		

1. Constant:, Reliability, Responsiveness, Empathy, Tangible
2. Constant: Reliability, Responsiveness, Empathy
3. Constant: Reliability, Responsiveness
4. Constant: Reliability

Dependent Variable: Overall patient loyalty

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.2814	.960		6.860	.000
	Reliability	1.680	.080	.551	14.0228	.000
	Responsiveness	1.080	.064	.445	11.2458	.000
	Empathy	1.020	.043	.551	12.0338	.000
	Tangible	1.101	.010	.423	13.1058	.000
2	(Constant)	5.203	.872		5.966	.000
	Reliability	1.001	.057	.551	17.449	.000
	Responsiveness	1.060	.071	.471	14.938	.000
	Empathy	1.059	.057	.584	18.561	.000
3	(Constant)	14.302	1.225		11.671	.000
	Reliability	1.079	.097	.594	11.094	.000
	Responsiveness	.983	.120	.437	8.168	.000
4	(Constant)	21.684	.965		22.479	.000
	Reliability	.989	.113	.544	8.777	.000

a. Dependent Variable: Overall patient loyalty

The results indicate that p value is .000 hence the regression model was fit. The R square is .296 it implies that there is 29.6% variance by reliability factor on customer satisfaction. The adjusted R square shows the amount of variance explained by independent variable on dependent variable. From the coefficient table it was revealed that reliability of hospital is (-.544 and significance p-.000).Hence there is a significance difference between reliability and customer satisfaction. In terms of responsiveness the R square is .485 it implies that there is 48.5% variance by responsiveness factor on customer satisfaction value is .437 and the p value is .000 it shows that responsiveness also positively influence overall patient loyalty of hospital. The next dimension was empathy the R square variance is 82.3%,   value was .584 and the p value was .000 it shows that the empathy aspect also have positive influence and overall satisfaction of hospitals. The tangible dimension has the R square value of .560,   value of .423 and the p value was .000 it shows that the tangible dimension is also positively related to customer satisfaction.

Conclusion
Service is judgement to overall superiority of service. The SVIMS hospital has maintained the best servcies with the patients and therefore it has lead to customer loyalty. The hospital has considered all the four dimensions as important in making the customer loyal and retaining the customers with them it. Hence it will be profitable to both the customer and the hospital.

References
1. SeetharamanHariharan, Prasanta Kumar Dey (2010), A comprehensive approach to quality management of intensive care services, International Journal of Health Care Quality Assurance Vol. 23 No. 3, 2010 pp. 287-300.
2. SeetharamanHariharan, Prasanta Kumar Dey (2010), A comprehensive approach to quality management of intensive care services, International Journal of Health Care Quality Assurance Vol. 23 No. 3, 2010 pp. 287-300.
3. SandipAnand(2010), Quality differentials and reproductive health service utilisation determinants in India; International Journal of Health Care Quality Assurance Vol. 23 No. 8, 2010 pp. 718-729.
4. Aagja, J.A. and Garg, R. (2010), "Measuring perceived service quality for public hospitals (PubHosQual) in the Indian context", International Journal of Pharmaceutical and Healthcare Marketing, Vol. 4 No. 1, pp. 60-83.
5. Irfan, S.M. and Ijaz, A. (2011). Comparison of service quality between private and public hospitals. Empirical evidences from Pakistan- Journal of Quality and Technology Management, 2011,pp. 91-114.
6. Abdul. M. A., Habib. A. and Rafiqul I. C. (2011). Factors influencing patient satisfaction in primary healthcare clinics in Kuwait. International Journal of Health Care Quality Assurance, Vol. 24 Iss: 3, pp.249 – 262.
7. Afshan, K., Ismail. A., Awais. Y., Zain-ulAbideen S., Diva. T. and Sohail. A. (2012). Patient Satisfaction – A Comparison between Public & Private Hospitals of Peshawar. International Journal of Collaborative Research on Internal Medicine & Public Health Vol. 4 No. 5.
8. Khanchitpol, Y. and Johnson, W. (2013). Measuring hospital out-patient service quality in Thailand , Leadership in Health Services, Vol. 26 Iss: 4, pp.338 – 355.
9. Y. P. Pai, and S. T. Chary, "Dimensions of hospital service quality: a critical review Perspective of patients from global studies" International Journal of Health Care Quality Assurance, vol. 26, no. 4, pp. 308-340, 2013.
10. Tam, J.L.M. (2012), "Linking perceived service quality to relational outcomes in a Chinese context", Journal of International Consumer Marketing, Vol. 24 Nos 1-2, pp. 7-23.