Research Journal of Applied Sciences 10 (4): 111-114, 2015
ISSN: 1815-932X

An Analytical Study of Patients' Perception on the Service Quality of Indian Hospitals

S. Aiswarya and P.S. Rajeswari
School of Management, SRM University, Kattankulathur, India

Abstract: In today's competitive world delivering high quality service is the key for a success. The trend is such that satisfied customers now form the foundation of any successful business because the customer satisfaction leads to repeat purchases, brand loyalty and positive word of mouth. Indian health care sector is the fastest proliferating and vibrant sector due to its high standards of service quality. At the same time it faces hectic competition and requires advancement in medical technologies at par with the global standards. In this current scenario, it is highly imperative to gauge the patient's perception on the service quality attributes to standardize and fecund their services. The main purpose of the study is to examine the patient's perception which determines the service quality with respect to three classifications of hospitals in Bangalore. Descriptive research design was employed. Primary data were collected using survey method by pre-tested questionnaire. Bangalore city of India was selected as the sampling framework by choosing three classifications of hospitals, private owned, corporate owned and government hospitals as sampling units with a total sample size of 625. Exploratory and confirmatory factor analysis was used for the data analysis. It was found out that reliability, empathy and responsiveness were considered as the contributing factors of the patients' satisfaction according to their perception. Based on the result operational strategies were recommended.

Key words: Service quality, reliability assurance, tangibility, empathy and responsiveness, patients

INTRODUCTION

Intensifying competition and rapid deregulation have led many service and retail businesses to seek profitable ways to differentiate themselves. One strategy that has been related to success in these businesses is the delivery of high service quality (Zeithaml *et al*., 1985). Service quality is an approach to manage business processes in order to ensure full satisfaction of the customers which will help to increase competitiveness and effectiveness of the industry. Quality in service is very important especially for the growth and development of service sector business enterprises (Powell, 1995). It works as an antecedent of customer satisfaction (Ruyter and Bloemer, 1995). Unlike goods quality which can be measured objectively with certain indicators like durability and number of defects (Crosby, 1979; Garvin, 1983), service quality is an abstract and elusive construct because of three features unique to services: intangibility, heterogeneity and inseparability (Zeithaml *et al*., 1985). With, the increase of the importance of service sector in the economy of India, the measurement of service quality became important (Rahaman *et al*., 2011).

Quality is such an important issue that it is considered a really significant concept in the real life. It is regarded as a strategic organizational weapon. And the pressing need of developing service organizations and upgrading their services necessitates the measuring of service quality (Mohammad and Alhamadani, 2011). As a result of economic changes throughout history, the concept of 'quality' has changed. 'Quality' comes from the Latin word 'Qualitas' which refers to the nature of a person or the nature of an object. In the past 'Quality' meant accuracy and perfection.

According to Chakraborty and Majumdar (2011) in the service sector, the health care industry, one of India's largest sectors in terms of revenue and employment is growing rapidly. In India, the service quality of healthcare is miserable and in general, the health outcome is far from satisfactory. Therefore, government of India has adopted a policy of health care reform having two basic objectives to achieve health securities for all and to provide quality health facilities for all within every district in India (John, 2010). In the health care sector, customer satisfaction is also an important issue as in other service sectors (Shabbir *et al*., 2010). A health care organization can achieve patient satisfaction by providing quality services; keeping in view patients' expectation and continuous improvement in the health care service (Zineldin, 2006).

Corresponding Author: P.S. Rajeswari, School of Management, SRM University, 603 203 Kattankulathur, India

Literature review: Quality is the keyword for survival of organizations in the global economy. Organizations are undergoing a shift from a production-led philosophy to a customer-focused approach. Competitiveness of a firm in the post-liberalized era is determined by the way it delivers customer service (Rahaman *et al*., 2011). Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). There are a number of different "definitions" as to what is meant by service quality. One that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Lewis and Mitchell, 1990; Wisniewski and Donnelly, 1996). Service quality can thus be defined as the difference between customer expectations of service and perceived service. The SERVQUAL instrument has been the predominant method used to measure consumers' perception of service quality. The generic determinants of service quality are presented by Parasuraman *et al*. (1985) as encompassing; reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding the customer and tangibles. Subsequently, Parasuraman *et al*. (1988) discovered a high degree of correlation between some of the elements and consolidated them into five determinants reliability, assurance, tangibles, empathy and responsiveness.

Zarei *et al*. (2012) stated that highest expectation and perception was for the tangibles dimension and the lowest expectation and perception was for the empathy dimension amongst 983 patients randomly selected from 8 private general hospitals of Iran.

Al-Majali and Al-Hashem (2012) state that among patients assessing the Jordanian University Hospital and Al-Bashir hospital in the city of Amman all dimensions of health services provided such as reliability, responsiveness, safety and compassion was highly positive but less than what the patients expected.

Zhigunova (2012) found that the four dimensions such as reliability, empathy, tangibles and responsiveness are not only positive on an overall level but also separately for the three hospitals (Bumrungrad Hospital, Vejthani Hospital and Bangkok Hospital).

Kishma says that it was revealed that the empathy dimension was the best performing dimensions of service quality dimension followed by tangibles, assurance, reliability and responsiveness among the patient group of Joseph N France General Hospital St. Kitts and Nevis.

Research problem: According to the Indian scenario, healthcare industry also faces tremendous competition due to the rapid advancement in technology. There has been always a continuous competition in the healthcare mainly based on service pattern, service quality and customers' expectation. Many hospitals are far from the advantageous position because of scrawny ability to identifying the gaps between the customer expectations and perception of service quality. If healthcare sector are not able to identify that gaps effectively service organization will not sustained in the stiff competition.

Research objectives:

- To analyze the factors of patients' perception on the service quality with respect to Indian hospitals
- To examine the intensity of influence of reliability, assurance, tangibility, responsiveness and empathy with regard to Indian hospitals

MATERIALS AND METHODS

Descriptive study was adopted by conducting survey method using structured questionnaire. The study was conducted in three classifications of hospitals such as Government, Corporate and Medical College Hospitals constituting around 625 samples (125 for government hospital, 125 from corporate hospital and 325 from medical college hospital). About 51 variables were grouped under five constructs based on literature review. They were reliability, assurance, tangibility, responsiveness and empathy. Pilot study was conducted using 100 samples in order to pretest the questionnaire. The statements given here are measured using a five point Likert scale that ask the respondents to express their agreement from strongly agree to strongly disagree. Reliability of the study was tested using cronbach alpha value which was 0.86. Construct, content and external validity were verified and confirmed through the literatures and experts' support. Collected data were analyzed with SPSS 20 Version. Exploratory and confirmatory factor analysis was used for the data analysis.

Data analysis: Totally five constructs, reliability, assurance, tangibility, responsiveness and empathy were taken with 51 items in order to examine the patient perception with regard to the service quality of the hospitals. Exploratory factor analysis was applied to reduce data. Principal component axis with pro-max rotation was chosen to obtain pattern matrix. Totally 38 factors were extracted and data imputation was performed for all five constructs. Finally, pattern matrix was taken forward to undergo confirmatory factor analysis using Amos 20.

Table 1: Model fit indices

Models	CMIN/DF	P	RMR	GFI	AGFI	PGFI	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI	RMSEA	PCLOSE
Default	1.286	0.186	0.036	0.996	0.975	0.256	0.996	0.974	0.989	0.949	0.989	0.026	1.000
Saturated	-	-	0.000	1.000	-	-	1.000	-	1.000	-	1.000	-	-
Independence	58.460	0.000	0.795	0.356	0.276	0.316	0.000	0.000	0.000	0.000	0.000	0.255	0.000

Model with the fit indices: The χ^2-test functions as a statistical method for evaluating models. Fit indexes describe and evaluate the residuals that result from fitting a model to the data. A Chi-square probability value >0.05 indicates acceptable model fit and suggesting that the proposed model is consistent with the observed data (Table 1).

RMR (Root Mean Square Residual), the smaller the RMR, the better the model. An RMR of zero indicates a perfect fit. The closer the RMR to 0 for a model being tested, the better the model fit. Here, the value of RMR is <0.05 and hence, it indicates good fit. GFI should be ≥0.90 to indicate good fit. GFI is ≤1. GFI index is roughly analogous to the multiple R^2 in multiple regression in that it represents the overall amount of the co-variation among the observed variables that can be accounted for by the hypothesized model.

AGFI (Adjusted GFI), AGFI adjusts the GFI for degree of freedom, resulting in lower values for models with more parameters. AGFI should also be at least 0.90, close to 1 indicates good fit. AGFI may underestimate fit for small sample sizes. AGFI's use has been declining and it is no longer considered a preferred measure of goodness of fit. AGFI >0.9 indicates good fit.

CFI (Comparative Fix Index), close to 1 indicates a very good fit, >0.9 or close to 0.95 indicates good fit by convention, CFI should be ≥0.90 to accept the model. CFI is independent of sample size. CFI is more appropriate than NFI in finite samples. NFI behaves erratically across ML and GLS whereas CFI behaved consistently across the two estimation methods. CFI is recommended for routine use. Gerbing and Anderson recommended RNI and CFI, DELTA2 (IFI). When the sample size is small, both the CFI and TLI decrease as we increase the number of variables in the models.

IFI (Incremental Fit Index) which is also known as DELTA2 should be ≥0.90 to accept the model. IFI value close to 1 indicates good fit.

NFI (Normed Fit Index) also known as the Bentler-Bonett normed fit index, DELTA1), 1 = perfect fit. NFI values above 0.95 are good.

RFI (Relative Fit Index, RHO1) is not guaranteed to vary from 0 to 1. RFI close to 1 indicates a good fit. RMSEA (Root Mean Square Error of Approximation), there is good model fit if RMSEA ≤0.05. The RMSEA values are classified into four categories: close fit (0.00-0.05), fair fit (0.05-0.08), mediocre fit (0.08-0.10) and poor fit (over 0.10). RMSEA <0.05 indicates good fit. RMSEA tends to improve as we add variables to the model, especially with larger sample size. One limitation of RMSEA is that it ignores the complexity of the model. The lack of fit of the hypothesized model to the population is known as the error of approximation. The RMSEA is a standardized measure of error of approximation. RMSEA value of 0.05 or less indicates a close approximation. PCLOSE tests the null hypothesis that RMSEA is no >0.05. If PCLOSE is >0.05, depicted the computed RMSEA is <0.05, indicating close fit (Table 2).

Table 2: Standardized regression weights and factor loadings of the variables

Components	R^2	Loadings
Reliability	1.156	0.886
Assurance	0.986	0.802
Empathy	1.112	0.916
Responsiveness	1.010	0.855
Tangibilty	0.966	0.823

The standardized regression weights of all the variables are above 0.9 with positive symbols. This shows that the patients have high positive appeal on the service quality rendered in the hospitals. The factor loadings are also high reflecting that the variables are strongly associated with the latent variable or factors.

RESULTS AND DISCUSSION

The objective of this research was to analyze and estimate the factors that trigger service quality with respect to service quality dimensions. The results appeared such that the highest was reliability dimension followed by empathy and responsiveness whereas the dimensions of assurance and tangibility were behind them. The high expectations and perceptions in reliability quality dimension in general for hospitals can be related to the fact that patients are confident and trust the services provided by the hospitals. On the other hand, low expectation and perceptions in the tangibles quality dimension relates that the patients give the least priority to such factors like modern equipment, suitable equipment at radiology section, computer, PC, etc.

Patients basically have few expectations related to service differentiation but then they do refer to these service performances that can create difference in their eyes to deem overall quality. Management are ought to think about improvement of the setting beautiful appearance and work on improving the tangibles of hospital as it's the first point of encounter and it plays an important role in the minds of the customer. Management should also try to gain some competitive advantage that can differentiate the services provided in order to attract more customers. There is always scope for improvement in all the sections of the hospitals. There is always

a way to perform the services quickly and efficiently, understanding the patients specific needs and also trying to give them individual attention are the key determinant to improve the overall perception of the overall service quality and this would result in gaining functional differentiation. Also, areas such as encouraging training programs for nurses and staff to improve their technical and functional skills will enhance for the betterment of dimensions like assurance and responsiveness. Motivating medical staff like doctors, nurses, staff, lab technicians, etc., plays a key role that needs to be focused especially as empathy and responsiveness are important factors.

CONCLUSION

Generally, the study of service sector and its quality is both important and challenging. In the era of competition, knowing how customers perceive the service quality and being able to measure service quality is a challenge. But the industry can be benefitted by it in both quantitative and qualitative ways. Identifying the strengths and weaknesses pertaining to the dimensions of service quality organizations can better allocate resources and provide better service, ultimately better service to external customers.

The results of this study shows that the patients have ranked reliability dimension on the highest followed by empathy, responsiveness, assurance and the lowest as tangibility. It should encourage the management to develop strategies especially in the areas of assurance and tangibility in order to ultimately the potential customers in the competitive market.

RECOMMENDATIONS

The current study examined service quality factors in the three classifications of hospitals, additional studies can be undertaken to examine the patients' satisfaction. Also, studies could be conducted in other regions and with larger samples.

REFERENCES

Al-Majali, A.Y. and A. Al-Hashem, 2012. Measuring the quality system of health services from the patients perspective. Far East J. Psychol. Bus., 7: 1-21.

Chakraborty, R. and A. Majumdar, 2011. Measuring consumer satisfaction in health care sector: The applicability of servqual. Int. Refereed Res. J., 2: 149-160.

Crosby, P.B., 1979. Quality is Free: The Art of Making Quality Certain. McGraw Hill, New York, USA., ISBN-139780070145122, Pages: 309.

Garvin, D.A., 1983. Quality on the line. Harvard Bus. Rev., 61: 65-75.

John, J., 2010. Is India ready for an overhaul in Healthcare? Econ. Political Weekly, Vol. 45.

Lewis, B.R. and V.W. Mitchell, 1990. Defining and measuring the quality of customer service. Market. Intell. Plann., 8: 11-17.

Mohammad, A.A.S. and S.Y.M. Alhamadani, 2011. Service quality perspectives and customer satisfaction in commercial banks working in Jordan. Middle Eastern Finance Econ., 14: 60-72.

Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1985. A conceptual model of service quality and its implications for future research. J. Market., 49: 41-50.

Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1988. SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. J. Retail., 64: 12-40.

Powell, T.C., 1995. Total quality management as competitive advantage: A review and empirical study. Strategic Manage. J., 16: 15-37.

Rahaman, M.M., M. Abdullah and A. Rahman, 2011. Measuring service quality using SERVQUAL model: A study on PCBs (Private Commercial Banks) in Bangladesh. Bus. Manage. Dynamics, 1: 1-11.

Ruyter, K.D. and J. Bloemer, 1995. Integrating service quality and satisfaction: Paying in the neck, or marketing opportunity? J. Consumer Satisfact. Dissatisfact. Complain. Behav., 8: 44-52.

Shabbir, S., H.R. Kaufmann and M. Shehzad, 2010. Service quality, word of mouth and trust: Drivers to achieve patient satisfaction. Scient. Res. Essays, 5: 2457-2462.

Wisniewski, M. and M. Donnelly, 1996. Measuring service quality in the public sector: The potential for SERVQUAL. Total Qual. Manage., 7: 357-366.

Wisniewski, M., 2001. Using SERVQUAL to assess customer satisfaction with public sector services. Manage. Serv. Qual., 11: 380-388.

Zarei, A., M. Arab, A.R. Froushani, A. Rashidian and S.M.G. Tabatabaei, 2012. Service quality of private hospitals: The Iranian patients' perspective. BMC Health Serv. Res., Vol. 12. 10.1186/1472-6963-12-31.

Zeithaml, V.A., A. Parasuraman and L.L. Berry, 1985. Problems and strategies in services marketing. J. Market., 49: 33-46.

Zhigunova, M., 2012. Perceived service quality of private hospitals in Thailand: Impact on customer satisfaction, customer loyalty and corporate image. Research Paper, School of Business and Technology of Webster University, Webster Groves, Missouri, October 2012, pp: 1-95.

Zineldin, M., 2006. The quality of health care and patient satisfaction. Int. J. Health Care Qual. Assurance, 19: 60-92.