Examining the Impact of Service Quality on Patients’ Satisfaction: A Study of Selected Private Hospitals in Amman City

Atalla Fahed Al-Serhan, Bahjat Jawazneh

To Link this Article: http://dx.doi.org/10.6007/IJARAFMS/v10-i3/8071

Received: 30 June 2020, Revised: 26 July 2020, Accepted: 29 August 2020

Published Online: 27 September 2020

In-Text Citation: (Kamarunzaman, Shanthi, Nen, Zulkifli, & Shamsuri, 2020)

To Cite this Article: Al-Serhan, A. F., & Jawazneh, B. (2020). Examining the Impact of Service Quality on Patients’ Satisfaction: A Study of Selected Private Hospitals in Amman City. International Journal of Academic Research in Accounting, Finance and Management Sciences. 10(3), 325-335.

Copyright: © 2020 The Author(s)
Published by Human Resource Management Academic Research Society (www.hrmars.com)
This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: http://creativecommons.org/licences/by/4.0/legalcode
Examining the impact of service quality on patients’ satisfaction: a study of selected private hospitals in Amman City

Dr. Atalla Fahed Al-Serhan
Assistant Professor, Department of Business Administration, Al Albayt University, Mafraq, Jordan

Prof. Bahjat Jawazneh
Dean, Faculty of Economics and Administrative Sciences, Al Albayt University, Mafraq, Jordan

Abstract
The health care industry has recently experienced unprecedented challenges because of intensified competition. In order to create competitive advantage, health care providers stress on the efficacy and effectiveness of health service outcomes by taking into account patients’ concerns and interests. Service quality and patient satisfaction remain critical issues for health care providers. Patient satisfaction leads to favorable results, such as higher rates of patient retention, positive word of mouth and higher profits for health care providers. It also influences the rate of patient compliance with physician advice and requests. Thus, patient satisfaction assessment has become an integral part of health care organizations’ strategic processes. This study attempts to identify the service quality factors that influence patient satisfaction in selected private hospitals with the help of field survey conducted in the year 2019. Non-probability judgment sampling method was used to obtain information regarding patients’ perceptions towards service quality dimensions. Multiple linear regression was used to identify the service quality factors that influence patients’ satisfaction. The results highlighted significant impact of service quality dimensions on patients’ satisfaction in selected hospitals in Amman city

Keywords: Patient, Satisfaction, Service, Quality, Hospitals, Jordan

Introduction
Service quality has been perhaps the most explored topic in services marketing. The concept of service quality has aroused considerable interest and debate in the literature because of the difficulties in both defining it and measuring it (Andaleeb, 2001). Quality does not have exact meaning. Quality is particularly difficult to describe, explain, calculate and consequently manage in services. It means different things to different people as a producer’s perception of quality might be different from a customer. Quality is resolute by inexact individual factors such as perceptions, expectations and experiences of customers (Khan, 2016). Service quality can be defined as the
extent to which a service meets customers’ needs or expectations. Service quality is the delivery of excellent or superior service relative to customer expectation (Parasuraman, Zeitham and Berry, 1988).

Service quality is an assessment of how well a delivered service conforms to the client’s expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction. Continuous attempts have been made by all service organizations to deliver quality service to their customers and therefore they use considerable time in measuring service quality. Service organizations like other manufacturing organizations are also focusing to deliver the services that meet customer needs in order to make their customer happy. Therefore, understanding, measuring and improving quality is an alarming challenge for all organizations since they compete to great degree on the basis of service. The provision of high service quality enables a company to be competitive and, contributes to their productivity and profitability. It increases cash flow and shareholder value, gives businesses a competitive advantage, enhances customer satisfaction, and enhances customer loyalty.

**Service Quality in Health Care**

Health care services have a distinct position among other services due to highly involving and risky nature of services and the general lack of adequate knowledge possessed by consumers (Sharmila & Krishnan, 2013). The concern of people regarding their health has increased to a greater extent. The changing lifestyle of people has affected their health in a critical way. Stressful work environment, commitments, high expectations, etc. have resulted in health disorder (Rahman and Kutubi, 2013). Health care industry additionally turned into an extremely aggressive and rapidly developing industry around the globe. The greatest test looked by health care services markets is how to characterize and measure the service quality. It makes measuring customer satisfaction and service quality in health care industry more complex (Sangwan, 2012).

Patient perception of service quality is a key determinant of a health care organization’s success due to its primary role in achieving patient satisfaction and hospital profitability. The provision of high service quality enables a hospital to be competitive and gets a competitive advantage, enhances patients’ satisfaction, and enhances patients’ loyalty (Badri, Attia, and Ustadi, 2009). Patient satisfaction leads to favorable results, such as higher rates of patient retention, positive word of mouth and higher profits for health care providers. It also influences the rate of patient compliance with physician advice and requests (Kumar, 2014). Thus, patient satisfaction assessment has become an integral part of health care organizations’ strategic processes. The present research used twenty four statements (under four major heads) which were developed after a comprehensive literature review to measure the service quality attributes. A detailed discussion of all these variables is in the methodology part.

**Review of Literature**

Shabbir, Kaufmann, and Shehzad (2010) examined the impact of service quality provided in Pakistani hospitals (Public and Private) on patient satisfaction with the help of a field survey conducted in Islamabad. The sample size of the study was 245 patients. Correlation and regression analysis were
used to find out the impact of service quality, word of mouth and trust on patient’s satisfaction. It was revealed that Pakistani patient’s perceived public hospitals to be superior in the quality of their service. The findings highlighted that services quality, trust was positively and significantly correlated with patient satisfaction but word of mouth was not significantly correlated with patient satisfaction. Besides, trust had the second greatest impact on patient satisfaction and word of mouth has the least impact on patient satisfaction. Moreover, it was found that the patient satisfaction was higher among postgraduates and lower income respondents. Irfan, Ijaz, and Farooq (2012) investigated the quality of services delivered to patients by public hospitals in Pakistan. A questionnaire was developed based on modified ‘SERVQUAL’ on the sample of 369 patients who were availing services from the public hospitals in Lahore. Data was analyzed by structural equation modeling technique (SEM) and results highlighted that public hospitals were not making visible efforts to deliver quality of services to their patients and are not making any visible efforts to meet patient’s needs and wants. Ramez (2012) examined patients’ perception towards service quality provided in the hospitals of Bahrain on a sample of 235 patients. The author used SERVPERF scale instead of SERVQUAL scale. The results highlighted that SERVPERF dimensions explains 45.9% of the variation in the overall service quality. Positive and significant relationships were found between overall service quality (OSQ), patients’ satisfaction (SAT), and their behavioral intention (BI). Khalid, Ahmed, and Ahmad, (2013) conducted a study on a sample of 400 drawn from the University of Gujarat by using structured questionnaires. The relationships were then assessed by using Structural Equation Modeling (SEM). The result revealed that the social factors and personal factors have very important contribution in consumer decision-making. This study also concludes that as WoM is a very influential tool therefore, the healthcare practitioners should use it to enhance and promote their personal image. Akbulut (2016) make a comparative study of the factors affecting service quality on the Patient Satisfaction from patient’s perspectives in Jordan. The sample consisted of 200 respondents divided between King Hussein Medical Centre Hospital and Al-Bashir Hospital. The results revealed that statistically significant differences at ($\alpha \leq 0.05$) level in patient’s satisfaction towards service quality across gender, age, and educational level in the two hospitals. The study recommended that the two hospitals have to set up criteria for their quality provided for patients, and provide sufficient number of qualifies medical staff to deal with the increased number of patients.

**Research Gap**

The review of literature highlights that numerous studies have been carried out on service quality and patients’ satisfaction. But, there exists a clear empirical gap with respect of the influences of service quality on patients’ satisfaction in Jordan. This empirical gap becomes a problem to all private hospitals to know whether or not their services are successful among the patients and the changes that should be incorporated in their services. Indeed, there is a need to evaluate what extend the improvements in the services by hospitals should be made.

**Objectives of the Study**

1. To explicate the concept of service quality.
2. To examine the impact of service quality dimensions on patient’s satisfaction.
Hypotheses of the Study
H_{01}: There is no significant impact of service quality on patient’s satisfaction.
H_{a1}: There is a significant impact of service quality on patient’s satisfaction.

Research Methodology
This study identified and obtained information on the patient (outpatient) satisfaction with the service quality dimensions of five private hospitals in the capital city of Jordan.

Population and Sampling Method
The population of the study includes all patients admitted in selected hospitals of Jordan. Non-probability judgment sampling plan was implemented in the study because some judgment on the part of the researcher was necessary in order to select the right respondents.

Data Collection Method
The study used both primary and secondary data. Secondary information was gathered from different sources such as books, magazines, journals, newspapers and online databases via internet etc. Moreover, a self-administered questionnaire was used for collecting primary data. It is considered as a superior mode for minimizing bias and improving response rates. The questionnaire consists of six variables wherein five variables were independent and one variable i.e. patient’s satisfaction was dependent. Figure 1 highlights the framework of the present research. To measure the service quality attributes, the study used twenty four items. Treatment quality, behavioral aspects and financial aspects were measured by four statements and structural aspects by five statements. However, Patient satisfaction was measured through four items. The effects of independent variables on the dependable variable were assessed by the 5-point Likert attitude scale. The questionnaire was pre-tested two times.

![Fig.1:Research Model](image_url)

Source: Researcher’s Own Compilation
Distribution of Questionnaires and Duration of field survey
A total of 500 questionnaires after judgement sampling were distributed to the patients admitted in five different hospitals, who met the sampling requirements. A total of 375 questionnaires were returned wherein 364 questionnaires were considered valid for data analysis. Table 1 shows the questionnaires distributed, rejected, and accepted. The data collection period was four months from September, 2019 to December, 2019.

Table 1: Sample Size

| No. | Selected Hospitals of Amman City | Questionnaires  |
|-----|---------------------------------|----------------|
|     |                                 | Distributed | Rejected | Accepted |
| 1   | Ash-Shaami Hospital              | 100         | 27        | 73        |
| 2   | Al Khalidi Medical Center       | 100         | 21        | 79        |
| 3   | Al-Essra Hospital               | 100         | 37        | 63        |
| 4   | Arab Medical Center             | 100         | 32        | 68        |
| 5   | Ibn-Alhaytham Hospital          | 100         | 19        | 81        |
|     | Total                           | 500         | 113       | 364       |

Source: Field Survey, 2019

Analysis of Data
Data collected from primary as well as secondary sources was analysed and interpreted and on the basis of which conclusions were drawn. For analyzing the data, multiple linear regression analysis was been used and hypotheses were tested at confidence level of 95%. This technique was widely used in prior empirical studies namely Irfan, Ijaz, and Farooq (2012); Khan, (2016); Khalid, Ahmed, and Ahmad, (2013); Kumar, (2014); Sangwan, (2012).
Demographic Profile of Respondents

Table 2 highlights the demographic profile like age, gender, education and family income of the respondents. A total of 500 questionnaires were distributed to the patients admitted in the five private hospitals namely Ash-Shaami Hospital, Al Khalidi Medical Center, Al-Essra Hospital, Arab Medical Center, and Ibn-Alhaytham Hospital. Table 2 shows that out of 364 patients, 229 (63%) were males and 135 (37%) were females. Moreover, 76 (21%) were below the age of 35 years, 132 (36%) were the age group of 36–50 years, and 146 (43%) were in the age group of more than 50 years. So far education of respondents is concerned, 149 (41%) respondents were graduates, and 127 (35%) having Masters’ degree and 24% were holds other degrees. Nevertheless, 39% reported that they have monthly income under 1000JD, 30% and 21% reported that they have income under 2000JD and 3000JD respectively. The table further shows that 10% respondents earned more than 3000JD.

Table 2: Shows the Demographic Profile of the Respondents

| Gender (N=364) | Total | Frequency |
|----------------|-------|-----------|
| Male           | 229   | 63        |
| Female         | 135   | 37        |
| Age (N=364)    |       |           |
| 20-35 Years    | 76    | 21        |
| 36-50 Years    | 132   | 36        |
| Above 50 Years | 156   | 43        |
| Education (N=364) |   |           |
| Upto Graduation| 149   | 41        |
| Post Graduation| 127   | 35        |
| Others         | 87    | 24        |
| Monthly Income in JD (N=364) | | |
| Under 1000     | 142   | 39        |
| 1001-2000      | 109   | 30        |
| 2000-3000      | 77    | 21        |
| Above 3000     | 36    | 10        |

Source: Survey, 2019

Reliability Analysis

Cronbach alpha which is the most used test of reliability was applied to examine the reliability of the data. Cronbach alpha of all study variables is ranging from 0.7 to 0.9 and hence the data is reliable. Table 7 in Appendix highlights the reliability of all statements of the study.

Table 3: Reliability Statistics

| No. of items | Cronbach alpha |
|--------------|----------------|
| 24           | 0.785          |

Hypothesis Testing

Ho1: There is no significant impact of service quality dimensions on patients’ satisfaction.
H01: There is a significant impact of service quality dimensions on patients’ satisfaction.

Table 4: Model Summary

| Model | $R$  | $R^2$ | Adjusted $R^2$ | Std Error | Durbin Watson |
|-------|------|-------|----------------|-----------|---------------|
| 1     | 0.866 | 0.706 | 0.686         | 0.4847    | 1.847         |

Dependent Variable: Patients’ Satisfaction
Source: Output of SPSS_18

Multiple linear regression has been applied to examine the impact of service quality dimensions on patients’ satisfaction. Table 4 highlights the values of Pearson correlation, $R$ square, adjusted $R$ square, standard error, and Durbin Watson. The value of adjusted $R$ square is 0.686 which means 68.6 percent variation in patients’ satisfaction is explained by service quality dimensions and rest of the variation $(1-R^2)$ is an unexplained variation in patients’ satisfaction due to variables that has not been considered in this model.

Table 5: ANOVA-Model Fitness

| Model      | Sum of Squares | df | Mean Square | $F$     | Sig. |
|------------|----------------|----|-------------|---------|------|
| Regression | 204.800        | 1  | 204.800     | 871.489 | 0.000|
| Residual   | 85.158         | 362| .235        |         |      |
| Total      | 289.958        | 363|             |         |      |

Dependent Variable: Patients’ Satisfaction
Source: Output of SPSS_18

Table 5 shows the results of ANOVA. It shows the model significance. The overall model is significant because the $p$ value is 0.000 ($P<0.05$). Hence, the model construct is validated.

Table 6: Multiple Regression Analysis

| Model:1 | Unstandardized coefficients | Standardized coefficients | t       | Sig. | Collinearity statistics |
|---------|-----------------------------|---------------------------|---------|------|-------------------------|
|         | B               | Std Error | Beta |       | Tolerance | VIF |
| Constant| .411            | .148      |      | 2.784 | .006       |     |
| X1      | .525            | .048      | .589 | 10.887| .000       | .504| 1.985 |
| X2      | .315            | .098      | .422 | 8.331 | .001       | .556| 1.789 |
| X3      | .469            | .031      | .617 | 15.006| .002       | .871| 1.148 |
| X4      | .308            | .030      | .427 | 10.132| .000       | .831| 1.204 |

X1:Treatment quality; X2: Behavioral aspects; X3:Structural Aspects; X4:Financial Aspects
Dependent Variable: Patients’ Satisfaction
Source: Output of SPSS_18

Table 6 shows the results of regression coefficients, t value, significant value, and collinearity statistics. An unstandardized beta coefficient gives a measure of contribution of each variable to the model. A larger value indicates that a unit change in the predictor variable has a larger impact.
on the criterion variable. Firstly, the value of unstandardized beta coefficient on X1 is 0.525 which is an indication of positive impact of Treatment quality on patients’ satisfaction. It shows that one unit change in it will bring 0.525 unit change in patients’ satisfaction. The significant value corresponding to it is 0.000 which is less than 0.05. It shows that there is a significant impact of treatment quality on patients’ satisfaction. Secondly, the values of unstandardized beta coefficients on X2, X3, and X4, are positive and statistically significant at 95% confidence level (P<0.05). Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of service quality dimensions on patients’ satisfaction in selected hospitals in Amman city. The findings are in line with the previous studies Akbulut (2016); Andaleeb (2001); Andaleeb (2000); Irfan, Ijaz, and Farooq (2012); Khan, (2016); Khalid, Ahmed, and Ahmad, (2013); Kumar, (2014); Sangwan, (2012); Shabbir, Kaufmann, and Shehzad, (2010).

The Regression equation of this Model is:

\[ Y = 0.411 + 0.525X_1 + 0.315X_2 + 0.469X_3 + 0.308X_4 + e \]

Conclusion

Health care services have a distinct position among other services due to highly risky nature of services. The concern of people regarding their health has increased to a greater extent due to changing lifestyle of people stressful work environment; commitments, high expectations. Health care is rapidly developing industry around the globe. The greatest test looked by health care services markets is how to characterize and measure the service quality. It makes measuring customer satisfaction and service quality in health care industry more complex. Taking this into cognizance, this research has been conducted to examine the impact of service quality dimensions on patient’s satisfaction in five private hospitals in the capital city of Jordan. A self-administered questionnaire was used for collecting primary data. The questionnaire consists of twenty four statements under six variables wherein five variables were independent and one variable i.e. patient’s satisfaction was dependent. A total of 500 questionnaires were distributed to the patients admitted in five different hospitals, who met the sampling requirements. A total of 375 questionnaires were returned wherein 364 questionnaires were considered valid for data analysis. The data collection period was four months from September, 2019 to December,2019.

For analyzing the data, multiple linear regression analysis was used and hypotheses were tested at confidence level of 95%. Cronbach alpha was applied before testing hypotheses to examine the data reliability and data was proved reliable. Thereafter, regression was run in SPSS at confidence level of 95%. The results highlighted that the value of adjusted R square was 0.686 which means 68.6 percent variation in patients’ satisfaction was explained by service quality dimensions and rest of the variation (1-R^2) was an unexplained variation. Furthermore, the regression coefficients on all variables under study treatment quality, behavioral aspects, structural aspects, and financial aspect were positive and statistically significant at 95% confidence level. Therefore, the null hypothesis is rejected and it can be said that there is a significant impact of service quality dimensions on patients’ satisfaction in selected hospitals in Amman city.
Limitations of this Study and Directions for Future Research
The present study includes only limited dimensions of service quality like Treatment quality, behavioral aspects, structural aspects, and financial aspects. It is conducted on sample size of 364 patients taken from Amman city of Jordan. Therefore, the results cannot be generalized to other cities of Jordan. Hence, in future a research might be conducted by taking more cities and more private hospitals in Jordan. A comparative study between public and private hospitals of Jordan might be conducted to examine the differences in patients’ satisfaction towards service quality. It is quantitative research that only testifies the relationships between selected variables.

References
Akbulut, N.Y. (2016). The impact of service quality on patient satisfaction in the health care system: a comparative study. *Saudi Journal of Business and Management Studies*. DOI: 10.21276/sjbms.2016.1.4.6

Andaleeb, S. S. (2001). Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. *Journal of Social Science and Medicine, Vol. 52*, Issue 9, 1359-1370. DOI: 10.1016/s0277-9536(00)00235-5. PMID: 11286361.

Andaleeb, S. S. (2000). Service quality in public and private hospitals in urban Bangladesh: a comparative study. *Health policy* 53 (1), 25-37. DOI: 10.1016/s0168-8510(00)00077-4. PMID: 10940461.

Badri, M. A., Attia, S., and Ustadi, A. M. (2009). Healthcare quality and moderators of patient satisfaction: testing for causality. *International Journal of Health Care Quality Assurance*, 22(4), 382-410. DOI: 10.1108/09526860910964843. PMID: 19725210.

Byju, K. P. M. (2014). Service quality in healthcare: a comparative study of private and public sector healthcare Services. *Doctoral Thesis*, Department of International Business, School of Management, Pondicherry University, Pondicherry, India. URL: http://dspace.pondiuni.edu.in/jspui/bitstream/1/2175/1/T5755.pdf

Carman, J. (2000). Patient perceptions of service quality: combining the dimensions. *Journal of Services Marketing* 14(4), 337-352. URL: 10.1108/02689230010363061. PMID: 11200300.

Duggirala, M., Rajendra, C., and Anantharaman, R. N. (2008). Patient perceived dimensions of total quality service in healthcare. *An International Journal, Vol.15*, Issue 5, 560-583. URL: https://www.emerald.com/insight/content/doi/10.1108/14635770810903150/full/html

Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing, Vol.18*, No.4, 36-44.

Irfan, S. M., Ijaz, A., and Farooq, M. M. (2012). Patient satisfaction and service quality of public hospitals in Pakistan: an empirical assessment. *Middle-East Journal of Scientific Research, 12* (6), 870-877, DOI: 10.5829/idosi.mejsr.2012.12.6.2743

Khan, A. (2016). A comparative study on service quality perceived by the customers of public and private sector banks. *Al-Barkaat Journal of Finance & Management, Vol. 8*, No. 1, 68-81. DOI: 10.5958/2229-4503.2016.00006.0

Khalid, S., Ahmed, M. A., and Ahmad, Z. (2013). Word-of-mouth communications: a powerful contributor to consumer’s decision-making in healthcare market. *International Journal of Business and Management Invention, Vol. 2*, Issue 5, 55-64.

Kumar, A. (2014). Service quality in retailing: a study of supermarkets in Karnataka. *Doctoral Thesis*,
B.N. Bahadur Institute of Management Sciences, University of Mysore, Manasagangothri, Mysore, India.

Marquis, M. S., Davies, A. R., and Ware, Jr. J. E. (1983). Patient satisfaction and change in medical care provider: a longitudinal study. *Medical Care*, 821-829. URL: https://www.ncbi.nlm.nih.gov/pubmed/6888031

Pramanik, A. (2016). Patients’ perception of service quality of health care services in India: a comparative study on urban and rural hospitals. *Journal of Health Management, Vol. 18*(2), 205–217. URL: https://doi.org/10.1177/0972063416637695

Parasuraman, A., Zeithaml, A. V., and Berry, L. L. (1988). Communication and control processes in the delivery of service quality. *Journal of Marketing, 52*(2), 35-48. DOI: 10.2307/1251263 URL: http://www.jstor.org/stable/1251263

Polluste, K., Kalda, R., and Lember, M. (2000). Primary health care system in transition: the patient's experience. *International Journal for Quality in Health Care, Vol. 12*, 503-509. URL:http://urn.kb.se/resolve?urn=urn:nbn:se:norden:diva-3410</div>

Rahman, M. R., and Kutubi, S. S. (2013). Assessment of service quality dimensions in healthcare industry: a study on patient’s satisfaction with Bangladeshi private hospitals. *International Journal of Business and Management Invention, Vol. 2* Issue 4, 59-67.

Ramez, W. S. (2012). Patients' perception of health care quality, satisfaction and behavioral intention: an empirical study in Bahrain. *International Journal of Business and Social Science, Vol. 3*, No.18, 131-141.

Sangwan, T. (2012). Patients’ perception of service quality in health care industry. *Doctoral Thesis*, University School of Management, Kurukshetra University, Kurukshetra, India.

Shabbir, S., Kaufmann, H. R., and Shehzad, M. (2010). Service quality, word of mouth and trust: drivers to achieve patient satisfaction. *Scientific Research and Essays, Vol. 5*(17), 2457-2462. URL: http://www.academicjournals.org/journal/SRE/article-abstract/01F459F19250

Sharmila, S., & Krishnan, J. (2013). Has the service quality in private corporate hospitals meet the patient expectations? A study about hospital quality in Chennai. *Asia Pacific Journal of Marketing and Management Review, 2*, 19-35.

Sitzia, J., and Wood, N. (1997). Patient satisfaction: a review of issues and concepts. *Social Science & Medicine, 45*(12), 1829-1843. URL: https://www.ncbi.nlm.nih.gov/pubmed/9447632

Torres, E. J., and Guo, K. L. (2004). Quality improvement techniques to improve patient satisfaction. *International Journal of Health Care Quality Assurance, 17*(6), 334-338. URL: https://dspace.lib.hawaii.edu/bitstream/10790/2983/1/guo.k-2004-0006.pdf

Zineldin, M. (2006). The quality of health care and patient satisfaction: An exploratory investigation of the 5Qs model at some Egyptian and Jordanian medical clinics. *International Journal of Health Care Quality Assurance, Vol. 19* No. 1, 60-92. URL: https://doi.org/10.1108/09526860610642609