

GLOSERV

ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT

Editors

Dr. Cihan Cobanoglu

Dr. Valentina Della Corte



Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA

Dr. Valentina Della Corte, University of Naples Federico II, Italy

ADVANCES IN GLOBAL SERVICES AND RETAIL MANAGEMENT: VOLUME 2

ISBN 978-1-955833-03-5

****Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.***

Co-Editors

Dr. Cihan Cobanoglu, University of South Florida, USA

Dr. Valentina Della Corte, University of Naples Federico II, Italy

ISBN 978-1-955833-03-5

© USF M3 Publishing 2021

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This imprint is published by USF M3 Publishing, LLC

The registered company address is University of South Florida, 8350 N Tamiami Tr, Sarasota, FL 34243 USA.

Associate Editor

Dr. Seden Dogan, Ondokuz Mayıs University, Turkey
Dr. Muhittin Cavusoglu, Northern Arizona University, USA

Assistant Editor

Dr. Faizan Ali, University of South Florida, USA
Dr. Resat Arica, Adiyaman University, Turkey
Dr. Alaattin Basoda, Aksaray University, Turkey
Dr. Lisa Cain, Florida International University, USA
Dr. Giovanna Del Gaudio, University of Naples Federico II, Italy
Dr. Rab-Nawaz Lodhi, University of Central Punjab, Pakistan
Dr. Bendegul Okumus, University of Central Florida, USA
Dr. Antonella Miletti, University of Naples Federico II, Italy
Dr. Gozde Turktarhan, University of South Florida, USA

Editor Assistants

Ipek Itr Can, Anadolu University, Turkey
Filiz Dalkilic Yilmaz, Nevsehir Haci Bektas University, Turkey
Eda Hazarhun, Dokuz Eylul University, Turkey
Gamze Kaya, Mersin University, Turkey
Oguz Kiper, Sakarya Applied Sciences University, Turkey
Basak Ozyurt, Trakya University, Turkey
Gokhan Sener, Necmettin Erbakan University, Turkey

****Authors are fully responsible for corrections of any typographical, copyrighted materials, technical and content errors.***

Which Resources Are Matter to Healthcare Performance? A Case Study on Bahrain

Mahmood Asad Ali and Mohamed Sayed Abou Elseoud

College of Business Administration
University of Bahrain, Kingdom of Bahrain

Abstract

The study aims at measuring the Bahrain public hospitals' healthcare services quality. For this purpose, the study adopts quantitative and survey techniques through designing survey questionnaire based on the five quality dimensions of SERVQUAL model which are: Tangibles, Reliability, Responsiveness, Assurance and Empathy. A questionnaire distributed electronically among citizens and residents, by using the social media network. A total of 169 responses were collected. The responses were estimated and analyzed via correlations and multiple regression techniques. The main findings show that, there is a significant influence of health care service quality on overall patient, in addition to, there are no difference in patient perceptions of health service quality dimensions attributed to any of the demographic variables. The study recommends that, hospital administration should continue their commitment to provide medical services to patients in a timely manner. Employees must obtain incentives and training courses, which might significantly impact on their job satisfaction and retention, and it could help to develop their communication skills, improve the patient experience of care, improve the health of populations, reduce the per capita cost of healthcare, and reduce clinician and staff burnout.

Keywords: healthcare, service quality, management, hospitals, Bahrain

Recommended Citation: Ali, M. A., & Elseoud, M. S. A. (2021). Which resources are matter to healthcare performance? A case study on Bahrain. In C. Cobanoglu, & V. Della Corte (Eds.), *Advances in global services and retail management* (pp. 1–11). USF M3 Publishing. <https://www.doi.org/10.5038/9781955833035>

Introduction

In the service sector such as the health care sector, quality is a critical dimension of competitiveness, which focuses on exceeding and satisfying customers' needs, and their expectations (Lewis, 1989). According to Gronross (1984), service quality classifies into two categories: technical quality that focuses on what consumers received from the service; and functional quality that concentrates on the service delivery process.

Ensuring good service quality and methods of measurements have profoundly attracted interest of many researchers in different countries (e.g. Ygeia,1995; Aljunid,1995; Gabbie, and O'Neill, 1996; Swan and Zwi,1997; Parasuraman et al.,1988; Chassin et al.,1998; Dabholker et al.,2000; Myer and collier, 2001; Kang et al., 2002; Taner and Antony, 2006; Arasli et al., 2008; Patel, 2009, Punnakitikashem et al., 2012; Yousapronpaiboon and Johnson, 2013; Essiam, 2013; Mosadeghrad, 2014; Abdelgdir, 2015; Butler and McNamara, 2015; Özlü and Uzun, 2015; Ajarmah et al., 2015; Muthuswamy, 2016; Devi K., 2016; Shan, 2016; Al-Damen, 2017). Authors

aim to assess perceived quality in the hospital sector in different areas by adopting a reliable and valid model in the hospital environment called SERVQUAL model.

The SERVQUAL framework proposed firstly by Parasuraman et al., (1985) who illustrate a service quality as a function of the differences (gaps) between patients' preferences and their actual experiences, along five quality dimensions (tangibles, reliability, responsiveness, assurance, and empathy) and twenty-two items (Shahin 2010; Van et al. 2003). The health care system in Bahrain started since 1960, where government provides free health care to Bahraini citizens and subsidized for non-Bahrainis. During the 15 years healthcare in Bahrain has developed to sustain population's health through health promotion and prevention. The total total spending on health sector represents 6.6% of GDP in year 2019, which was about 367 million Bahraini Dinars. The ministry of health (MOH) offers its services through 23 health centres distributed in the 5 governorates of the kingdom. The health centers provide all the preventive and curative services for the whole community, for citizens and residents. These services are provided by integrated medical team with nursing, pharmacy, laboratory, radiology, the natural thereby service is also provided by five health centers, one in each governorate. Private health care hospitals reach to 372 hospitals and clinics, where there are 13 hospitals and 40 health centers, and 110 clinics for all purposes of human medicine (MOH, 2019). Since the customers are the judges of quality; therefore, satisfaction and dissatisfactions information are important, where understanding them leads to the right improvements that can create satisfied customers who reward the health care institution with loyalty. The health care services in Bahrain would perceived judgment resulting from an evaluation process where customers compare their expectations with the service they have received. accordingly, the current study aims to evaluate the patients' satisfaction in public hospitals, in terms of the five quality dimensions of SERVQUAL framework.

This paper contributes to the extant literature, where it focuses on investigating the patient perception of the quality of services provided by public hospitals in Bahrain. The current study can help the healthcare institutions and providers to overcome their weaknesses, improve their services according to the patient expectations, and enhance their capabilities to meet what patients are looking for. In other ward, the patients' evaluation would help the hospitals and healthcare providers to identify their strengths and weaknesses; so that they could develop their quality in the future based on this evaluation to improve the patient experience of care, improve the health of populations, reduce the per capita cost of healthcare, and reduce clinician and staff burnout.

The current study limitation comes from using only one model which is SERVQUAL model that has five dimensions in order to test the study hypotheses, the study selected sample of outpatient clinics who visited two public hospitals under study to get health care services during the previous 3 months, and the study depends only on social media network to distribute the questionnaires and get feedback. The rest of study organized as follows. Section two reviews previous studies. Section three illustrates research methodology, hypothesis, and data. The main findings are shown in section four. Conclusion is shown in section five.

Literature Review

The previous studies illustrate that there are many papers adopted SERVQUAL model in order to assess perceived quality in the hospital sector. For instance, the study of Ygeia (1995) finds that Public hospitals generally provide unpleasant delivery of services, long waiting lists, and plain

walls and worn-out furniture, these factors play a vital role in disappointing the patients and this led the patients to depression who are already worried about their condition. While Private hospitals have colored walls, good furnishings and layouts, textures which give the patients a positive feeling. Aljunid (1995) and Swan and Zwi (1997) argue that most of the patients do not prefer to go to the public hospitals because there is longer waiting periods, not having flexible opening hours and mostly bad behavior of the doctors and nurses with patients. Chassin et al. (1998) try to identify the quality of public health care sector in USA through measurement, assessment, and improvement, and the required actions by health care professionals or other constituencies in public sector. They find serious and widespread quality problems exist throughout American medicine, and most of the healthcare organizations are not well equipped to meet the healthcare needs. Therefore, healthcare providers should work on effective strategies to formulate health structure that has a sustainable impact.

The other study by Jabnoun and Chaker (2003) compare the quality of healthcare services in the private and public hospitals of UAE by employ a questionnaire based on the SERVQUAL approach. Authors conclude that Private hospitals need to adapt and develop more customer-oriented strategies to compete effectively with the public hospitals. A similar study was conducted by Arasli et al. (2008) measure the quality of health care services in a small island of Cyprus by using a SERVQUAL scale test for both private and public hospitals. Authors find that the public hospitals received a positive response as compared to their private counterparts. The results were highly in favor of the private hospitals but only in exception of the food being provided there. Taner and Antony (2006) conduct a study to compare the anticipated and realized healthcare service quality in the hospitals of Turkey by building measurement scale of SERVQUAL to assess customer perceptions. The results revealed that there is a communication gap among the patients and the hospital staff as indicated through the study. Authors conclude that, the public hospitals should improve the services they provide in order to improve customer satisfaction.

Essiam (2013) examines the quality dimensions and patient satisfaction in a public university hospital in Ghana. The main findings show that gaps across all the SERVQUAL dimensions with SERVIQUAL dimensions, in addition to patients' satisfaction is best explained by perceived responsiveness, followed by perceived empathy, perceived assurance, perceived tangibility, and perceived reliability. The study of Yousapronpaiboon and Johnson (2013) examine the outpatient service quality perceptions in private Thai hospitals. Authors find that assurance is the most strongly dimension associated with overall PSQ, followed by empathy, responsiveness, tangibles, and reliability. Mosadeghrad (2014) conduct an exploratory in-depth individual and focus group interviews with 222 healthcare stakeholders including healthcare providers, managers, policymakers, and payers to identify factors affecting the quality of healthcare services provided in Iranian healthcare organizations. Author find that personal factors related to the provider and patient, factors pertaining to the health care organization, health care system and broader environment affected health care service quality. On the other hand, Özlü and Uzun (2015) find that there are differences in patient satisfaction with nursing care in surgery clinics in different hospitals in turkey related to educational background, profession, the hospital in which the patients stay, and previous hospital experience.

The study of Ajarmah et al. (2015) compare between accredited and non-accredited hospitals and its impact on patient's satisfaction in Jordan. The results show that accreditation improves patients' satisfaction. The other study by Abdelgdir (2015) finds that patients and reviewers are fully aware

of levels of quality health services provided in government hospitals in Sudan, and there are no statistically significant differences in the levels of quality of health services in government hospitals depending on the demographic variables of the sample of gender, age, education, income, place of residence.

Devi and Muthuswamy (2016) investigate service quality perception in multispecialty hospitals in India. Authors conclude that tangibility, reliability, and responsiveness are the three most important dimensions of hospital service quality perceived by patients, while the study of Al-Damen (2017) aims to measure the impact of perceived health care service quality on patient satisfaction at a major government hospital in Jordan based on survey is conducted to collect data with a total of 448 outpatient participants. The results show that there is an impact of perceived health care service quality on overall patient satisfaction. Reliability had the most influence, followed by empathy and assurance.

Methods

The current study adopts quantitative and survey techniques through designing survey questionnaire based on SERVQUAL model. The quantitative techniques include step wise multiple regression, one-way ANOVA and Pearson correlation coefficient.

Sample

Questionnaire was distributed to a sample of 200 outpatient clinics at two of public hospitals in Bahrain during the period (Sep.2019- Dec.2019) in order to test the following hypotheses:

- **H01:** There is no significant positive impact of the health quality dimensions on patients' satisfactions at public hospitals.
- **H1:** The health quality dimensions have positive and significant effect on patients' satisfactions at public hospitals.
- **H02:** There is no significant differences in patients' perceptions of the health quality dimensions due to demographic variables.
- **H2:** Patients' perceptions of the health quality dimensions are significantly different due to demographic variables.

The criteria for the selected sample are, an adult of 18 years or above, and visiting the public hospitals under study to get health care services during the previous 3 months. The study depends on primary data collected from distributed questionnaires, and secondary sources by referring to textbooks and periodical journals.

Data Collection

Out of 200 questionnaires, the data collected from only 169 questionnaires that received, where 4 questionnaires were excluded because it was not completed, and 27 questionnaires not received. The questionnaire involved three sections. Section one includes six questions related to personal information about age, gender, education, income level, nationality, and marital status. Section two includes information about the five dimensions of service quality which *Tangibles* dimension that includes physical facilities, equipment, and personal appearance. *Reliability* dimension related

to the ability to perform the promised services at dependable and accurate level. *Responsiveness* dimension means willingness to help patients and provide prompt service. *Assurance* dimension includes knowledge and courtesy of employees and their ability to inspire patients' trust and confidence, and *Empathy* dimension which related to caring, communicating and understanding the patients. Section three has questions related to patient's satisfactions.

The selected sample answered questions on a five points Likert Scale ranging from one to five, where one indicates very poor, two means poor, three means acceptable, four indicates good, and five is very good (Claveria, Monte and Torra,2017). The questionnaire includes twenty-two questions distributed as follows: four questions for Tangibility dimension, five questions for reliability dimension, and four questions related to Responsiveness dimension, five questions for empathy dimension and four questions for Assurance dimension. We measured patient's satisfactions through five questions. An interval class was adopted to analyze results as follow: low (1-2.5), medium (2.51-3.5), high (3.51-5). The study used a Cranach's Alpha (Cronbach, 1951) to measure the questionnaire's reliability via computing and examining the consistency of each dimension under study (Cortina, 1993). Table 1 shows that the values of Alpha are high and ranged from 0.771 to 0.892, which means the items are highly correlated and consistent (Schmitt, 1996)

Table 1. Cronbach's Alpha Reliability Test

Variables	Tangibility	Reliability	Responsiveness	Empathy	Assurance	Total	Patient's Satisfactions
No. of questions	4	5	4	5	4	22	5
Cronbach's Alpha	0.892	0.871	0.841	0.771	0.858	0.846	0.832

Descriptive Analysis

Table 2 shows the descriptive analysis of different variables. It indicates that most of the variables under study are reliable, where the value of standard deviation of tangible is the least followed by Assurance. The non-normality of the variables noted from platykurtic distribution (or negatively skewed) in six variables. The respondents' have perceived healthcare service quality practices as medium a high category with mean (3.8) and standard deviation (1.6). The results of responsiveness dimension indicated highest practice with mean (4.05) followed by reliability dimension with mean (3.72), while tangible dimension indicated lowest rank with mean (3.24). The dimension of overall patients' satisfaction was in medium category with mean (2.8).

Table 2. Statistical Properties of the Variables

Variables	Mean	Max.	Min.	S.D	Prob.	Skewness	Rank	Importance	Obs.
Tangible	3.24	3.5	2.9	1.141	0.000	-1.749	4	Medium	169
Reliability	3.72	4.1	3.3	1.31	0.000	-1.17	2	High	169
Responsiveness	4.05	4.3	3.8	1.169	0.013	-1.19	1	High	169
Assurance	3.65	4.2	3.1	2.328	0.010	-1.044	3	High	169
Empathy	3.15	3.9	2.4	2.117	0.015	-1.089	5	Medium	169
Patients' satisfaction	2.8	3.4	2.3	1.37	0.031	-2.107		Medium	169

Findings

The characteristics of the respondents shown in table (3), where the respondents have quite diverse characteristics regarding to age, gender, education, income level, nationality and marital status that collected for questioner sheets show quit diverse characteristics. Most of respondents are Bahraini

(76%), female (59%), between ages 26-35 years old (76%) and hold bachelor's degree (54%). The question on the income level shows that about (51%) having low income (below 250BD) and 71% of respondents are single.

Table 3. Respondents' Characteristics

Variables		Response frequency	Response percentage (%)
Gender	Male	70	41
	Female	99	59
	Total	169	100
Age	18-25	30	18
	26-35	128	76
	36-50	7	4
	Above 50	4	2
Nationality	Bahraini	128	76
	Non-Bahraini	41	24
Marital status	Single	121	72
	Married	48	28
	Divorced	0	0
Education	High School	66	39
	BSc.	90	54
	Postgraduate	9	5
	Others	4	2
Income level	Below 250BD	78	51
	250- Below 500	52	24
	500- Below1000	26	17
	1000- Below2000	6	4
	2000 and above	7	4

Table 4 shows the means and standard deviation values of sub items of the five quality service dimensions under study, in addition to 5 items of overall patient satisfaction. These can be illustrated as follow:

Patients' perspective feedback about tangibles dimension shows that tangibles practices in the medium category. It has the fourth rank before Empathy dimension with mean (3.24) and standard deviation (1.14). The means of three of questions are average. The first question that related to "The hospital's medical tools are modern" has highest mean (3.65) and importance. While the second question that concerning with "waiting facilities for patients Attendances in good case" got the lowest mean (2.9) and importance. The results show that hospitals under study face challenges related to limited financial resources that affected negatively on its investment in facilities.

The second dimension is reliability that measured by five questions. From table (4) it is obvious that respondents have perceived reliability practice as a higher category, and it has the second rank after Responsiveness dimension. The means most questions obtained from the sample are high, where the question that related to "Patients feel confidence when receiving medical treatment" has the highest mean which is (4.3) and the question that concerning with "Staff provide services within time" has the lowest mean (3.3). The results show that despite hospitals show special attention to the problems and queries of patients and Staff submit documents and reports without error, but there is a shortage in the staff and heavy workload led to staff cannot provide services within time which affected the ability to scheduling at a time convenient to them.

The assessment related to responsiveness dimension shows that respondents have perceived responsiveness practice as a higher category, and it has the first rank with a mean (4.05) and standard deviation (1.16). The question that related to "There is feedback instrument exist in clear

place” has the highest mean (4.8), while “Doctors respond efficiently to any request of Patients” question has the lowest mean (3.4), results ensure that there is a shortage in the staff and heavy workload in the hospitals under study.

Assurance dimension measured by four questions, and it indicates that respondents have perceived assurance practice as a high practice category, and it has the third rank after reliability with a mean (3.65) and standard deviation (2.3). Table (4) shows that fourth question “The patients trust nurses’ expertise and skills” has the highest rank and mean which is (4.2), and the question “The patients feel secure in using hospital service” has the lowest mean (3.1). The results were expected due to the public hospitals in Bahrain characterized by highly trained and well experienced staff from different countries especially Egypt, India, and Philippine. Moreover, the directors of these hospitals are trying to achieve the requirements to get the quality assurance certificate from international institutions.

Empathy dimension measured by five questions to assess the patients’ perspective to what extent empathy dimension is implemented at the hospitals under study. From table (4), it obvious that respondents have perceived empathy practice as a medium practice category, and it has the fifth rank with a mean (3.15) and standard deviation (2.1). Overall means of empathy are average. The question related to “The working hours of hospital are suitable to the patient” has the highest mean (4.2), where hospitals are working from 6 am till 6 pm for ordinary medical check and 24 hours for emergency cases. The question concerning with “The hospital prioritizes the interest of the patients” got the lowest mean (2.9), which means respondents feel that doctors do not give priority of interest to them. The respondents feeling created due to the number of reviewers is high every day which puts pressure on medical staff and create long lines in outpatient clinics which affected the provision of caring and individualized attention to outpatients.

Section three includes five questions to measure the overall patient satisfaction as dependent variable. Respondents have perceived overall patient satisfaction practice as a medium category with mean (2.8) and standard deviation (1.37). Means of three questions are low. While the question “I am satisfied with attitude of doctors in hospital” has high mean (3.6), the question “I am satisfied with waiting time in hospital” has low mean (1.5). Due to the limited resources, heavy workload, and low motivation to satisfy patients; the overall patient satisfaction is medium.

Form above results, Authors conclude that patients perceived that the working hours of hospital are suitable to them. The hospital’s medical tools are modern, and staff shows special attention to the problems and queries of patients, they feel confidence when receiving medical treatment, because they trust doctors and nurses expertise and skills, where they submit documents and reports without error, on addition to their attitude to them is friendly where they can give feedback via certain tools.

The overall patient satisfaction respondents’ have perceived overall patient satisfaction practices as medium category, it can be concluded that patients were moderately satisfied with medical, nursing and management services provided in the hospitals, however, moderate results should be evaluated in the near future. Possible reasons that hospitals under study are facing many challenges created from the limited resources, heavy workload and brain drainage that may lead to shortening in the awareness of patients need. In general, the above results reveled that outpatient in the hospitals under study receive acceptable level of healthcare services quality by using available

resources. In order to test the study hypotheses; authors adopt the quantitative techniques that include step wise multiple regression, one-way ANOVA and Pearson correlation coefficient.

Table 4. Statistical Properties of the Dimension According to Its Items

Variables	Mean	S.D	Rank	Importance	Obs.
Tangible dimension	3.24	1.141		Medium	169
The hospital's medical tools are modern	3.65	1.32	1	High	169
waiting facilities for patients Attendances in good case	2.9	0.92	4	Medium	169
Hospital Healthy environment	3.2	1.39	2	Medium	169
Hospital toilets are clean	3.1	1.65	3	Medium	169
Reliability dimension	3.72	1.31		High	169
Hospital shows special attention to the problems and queries of patients	3.6	0.87	3	High	169
Procedures and services are made correctly from the first time	3.4	1.56	4	Medium	169
Staff submit documents and reports without error	4.1	1.21	2	High	169
Staff provide services within time	3.3	1.23	5	Medium	169
Patients feel confidence when receiving medical treatment	4.3	0.93	1	High	169
Responsiveness dimension	4.05	1.169		High	169
Patients' needs are promptly meet by the staff	3.5	1.23	3	Medium	169
Patients are observed according to appointment	4.5	1.71	2	High	169
Doctors respond efficiently to any request of patients	3.4	0.63	4	Medium	169
There is feedback instrument exist in clear place	4.8	0.95	1	High	169
Assurance dimension	3.65	2.328		High	169
The patients feel secure in using hospital service	3.1	2.91	4	Medium	169
The staff at hospital attitude to patients is friendly	3.6	2.74	3	High	169
The patients trust doctor's expertise and skills	3.9	3.1	2	High	169
The patients trust nurse's expertise and skills	4.2	1.57	1	High	169
Empathy dimension	3.15	2.117		Medium	169
The medical care staff pay attention to each patient	3.4	1.09	2	Medium	169
The working hours of hospital are suitable to the patient	4.2	2.34	1	High	169
Doctors and nursing are responding to patients' complaints	3.3	2.52	3	Medium	169
The hospital prioritizes the interest of the patients	2.9	3.1	5	Medium	169
The hospital takes into account the traditions prevailing in society	3.1	2.33	4	Medium	169
Overall Patients' satisfaction	2.8	1.37		Medium	169
I am satisfied with location of hospital	2.3	1.05	4	Low	169
I am satisfied with attitude of doctors in hospital	3.6	2.10	1	High	169
I am satisfied with nursing in hospital	3.2	0.76	2	Medium	169
I am satisfied with medical care in hospital	2.5	0.73	3	Low	169
I am satisfied with waiting time in hospital	1.5	1.8	5	Low	169

First Hypothesis

The null hypothesis (H01): There is no significant positive impact of the five health quality dimensions on patients' satisfactions at public hospitals, while the alternative hypothesis (H1): The five health quality dimensions have positive and significant effect on patients' satisfactions at public hospitals at 5% significant level.

Table 5 shows the regression results, where four predictor variables are found to be significant in explaining patients' satisfaction. The responsiveness dimension had the greatest effect on patients' satisfaction ($B1=0.67$), followed by assurance, tangible and reliability dimensions. The value of R shows there is a strong relation between study variables, while R^2 shows that 57% of the variation in patients' satisfaction was explained by the four variables. The study concludes that improvement in the four dimensions will have positive influence on patients' satisfaction.

The ANOVA table shows that the value of F-stat equals to 9.49, Therefore the study rejects the null hypothesis and accepts the alternative hypothesis at 5% significance level, which means the

five health quality dimensions have positive and significant effect on overall patients' satisfactions at public hospitals.

Table 5. Model Summary of Five Dimensions Regression Analysis

	B	Std. of Error	T. Stat.	Sig.	
Constant	1.23	0.28			
Tangible	0.36	0.105	3.41	0.001	
Reliability	0.21	0.070	2.98	0.152	
Responsiveness	0.67	0.134	4.97	0.001	
Assurance	0.54	0.251	2.15	0.138	
Empathy	0.31	0.18	1.96	0.215	
R	0.754				
R²	0.570				
Std.Err	0.931				
ANOVA	Sum of Squares	df	Means of Square	F	Sig.
Regression	13.21	5	2.64	9.49	0.001
Residual	45.7	164	0.278		
Total	58.91	169	0.348		

Second Hypothesis

The null hypothesis (H02): There is no significant differences in patients' perceptions of the five health quality dimensions due to demographic variables, while the alternative hypothesis. (H2): patients' perceptions of the five health quality dimensions are significantly different due to demographic variables at 5% significant level. The one-way variance table shows that there are no significant differences in patients' perceptions of the health quality dimensions due to gender, age, nationality, marital status and education which means the study accepts the null hypothesis, while patients' perceptions of the health quality dimensions are significantly different due to income level variables at 5% significant level.

Table 6. One-Way Analysis of Variance (ANOVA Results)

	Source of Variance	Sum of Squares (SS)	df.	Mean of Square (MS)	F.stat.	F.tab (0.05,k-1,n-k)
Gender	Between groups	0.329	1	0.329	2.43	3.94
	Within groups	22.54	167	0.135		
	Total	22.874	168			
Age	Between groups	0.487	3	0.162	2.1	2.7
	Within groups	12.72	165	0.077		
	Total	13.207	168			
Nationality	Between groups	0.743	1	0.743	3.63	3.94
	Within groups	34.18	167	0.204		
	Total	34.923	168			
Marital status	Between groups	0.548	2	0.274	2.85	3.09
	Within groups	15.96	166	0.096		
	Total	16.508	168			
Education	Between groups	0.325	3	0.108	1.5	2.7
	Within groups	11.88	165	0.072		
	Total	12.205	168			
Income level	Between groups	1.207	4	0.301	3.9	2.46
	Within groups	12.69	164	0.077		
	Total	13.89	168			

Conclusions

The current study aims at evaluating the overall patients' satisfaction in public hospitals, in terms of the five quality dimensions of SERVQUAL framework, where it focuses on investigating the patient perception of the quality of services provided by public hospitals in Bahrain. The study revealed that outpatients in the hospitals under study receive acceptable level of healthcare services quality by using available resources.

Patients' perspective feedback about the five dimensions revealed that:

- Responsiveness dimension has the highest mean and first category, followed by reliability, Assurance, tangibles, and empathy.
- The overall patient satisfaction respondents' have perceived overall patient satisfaction practices as medium category, which means that patients were moderately satisfied with medical, nursing and management services provided in the hospitals, however, moderate results should be evaluated soon. The possible reasons that hospitals under study are facing many challenges created from the limited resources, heavy workload and brain drainage that may lead to shortening in the awareness of patients need.

The outcome of regression model shows that:

- There is significant impact of healthcare service quality on overall patients' satisfaction at 5% significant level.
- The responsiveness dimension had the greatest effect on patients' satisfaction followed by assurance, tangible, and reliability dimensions.
- 57% of the variation in patients' satisfaction was explained by the four variables.
- The statistical analysis show that there is no significant differences in patients' perceptions of the health quality dimensions due to gender, age, nationality, marital status and education, while patients' perceptions of the health quality dimensions are significantly different due to income level variables at 5% significant level.

According to above results the study recommends that, hospital administration in Bahrain should continue their commitment to provide medical services to patients in a timely manner. Moreover, employees should be obtained incentives and training courses which will have positive effect on their job satisfaction and retention, and it could help to develop their communication skills in respect of dealing with patient and level of response to their needs, giving them empathy and safety.

References

- Abdelgadir, M. (2015). Measuring the Quality of Health Services in government Hospitals in Sudan, from the Point of view of Patients and Reviewers: A Field Study on the Major Teaching Hospitals in Khartoum State. *Jordan Journal of Business and Administration*, 11(4), 899-920.
- Ajarmah, B., & Balqees, S., & Hashem, T. (2015). Patient Satisfaction Evaluation on Hospitals: Comparison Study Between Accredited and Non-accredited Hospitals in Jordan. *European Scientific Journal*, 11(32), 298-314.
- Alasadi, R. & Al Sabbagh, H., (2013). Quality care perceptions in private Syrian hospitals. *Education, Business and Society: Contemporary Middle Eastern Issues*, 6(2), 76-86.

- Al-Junid S., (1995), The Role of Private Medical Practitioners and their Interactions with Public Health Services in Asian countries, *Health Policy and Planning*, 10(4),333–349, December.
- Al-Damen R., (2017), Health Care Service Quality and Its Impact on Patient Satisfaction: Case of Al-Bashir Hospital, *International Journal of Business and Management*, 12(9), 136-152.
- Arasli, H., & Haktan Ekiz, E. & Turan Katircioglu, S., (2008). Gearing Service Quality into Public and Private Hospitals in Small Islands: Empirical Evidence from Cyprus. *International Journal of health care quality Assurance*, 21(1), 8-23.
- Chassin, M.R. & Galvin, R.W., (1998). The Urgent Need to Improve Health Care Quality: Institute of Medicine National Roundtable on Health Care Quality. *Jama*, 280(11),1000-1005.
- Cortina, J. M. (1993). What is Coefficient Alpha? An examination of Theory and Applications. *Journal of Applied Psychology*, 78(1), 98–104.
- Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. *Psychometrika*, 16(3), 297–334.
- Claveria, O.& Monte, E. & Torra, S. (2017). A new Approach for the Quantification of Qualitative Measures of Economic Expectations. *Quality & Quantity*, 51(6),2685–2706.
- Devi, K. V., & Muthuswamy, P. R. (2016). A Study on Service Quality GAP in Multi-Specialty Hospitals, Management, *Indian Journal of applied research*, 6(12), 616-617.
- Essiam, J. O. (2013). Service Quality and Patients Satisfaction with Healthcare Delivery Empirical Evidence from Patients of the Outpatient Department of a Public University Hospital in Ghana. *European Journal of Business and Management*, 5(28), 52-59.
- Gabbie, O. & O'Neill, M.A. (1996) SERVQUAL and the Northern Ireland hotel sector: A Comparative Analysis Part 1, *Managing Service Quality*, Vol.6, No.6, pp. 25-32.
- Gronros, C. (1984). Strategic Management and Marketing in the Service Sector—A Service Quality Model and its Marketing Implications. *European Journal of Marketing*, 18(4), 36-44.
- Kang, G. & James, J.,& Alexandris, K. (2002) Measurement of Internal Service Quality: Application of the SERVQUAL Battery to Internal Service Quality, *Managing Service Quality* 12 (5) 278-291.
- Lewis, B.R., (1989). Quality in the Service Sector: A Review. International Journal of Bank Mar Last, J.M. (1993). A Dictionary of Epidemiology. *Oxford University Press*, New York. 7(5), 4-12.
- Ministry of Health, (MOH), Bahrain, Annual report,2019.
- Mosadeghrad, A. M. (2014). Factors Influencing Healthcare Service Quality. *International Journal of Health Policy and Management*, 3(2), 77-89.
- Özlu, Z., & Uzun, O. (2015). Evaluation of Satisfaction with Nursing Care of Patients Hospitalized in Surgical Clinics of Different Hospitals. *International Journal of Caring Sciences*.8(1),19-27.
- Parasuraman, A., & Zeithaml, V., & Berry, L. (1985). A Conceptual Model of Service Quality and its Implication, *Journal of Marketing*, 49, 41-50.
- Parasuraman, A.,& Zeithaml, V. & Berry, L.,(1988). SERVQUAL: A Multi-Item Scale for Measuring Consumer Perceptions of the Service quality, *Journal of Retailing*, 64(1), 12-40.
- Swan, M & Zwi, A. (1997). *Private Providers and Public Health: Close the Gap or Increase the Distance?* PHP Publication (24) , Department of Public Health and Policy, London School of Hygiene and Tropical Medicine. London.
- Schmitt, N. (1996). Uses and Abuses of Coefficient Alpha. *Psychological Assessment*, 8(4), 350–353.
- Shahin, A. (2010). Developing the Models of Service Quality Gaps: A Critical Discussion. *Business Management and Strategy*, 1(1), 1-11.
- Shan, L., et al. (2016). Patient Satisfaction with Hospital Inpatient Care: Effects of Trust. *Medical Insurance and Perceived Quality of Care*, 1-18.
- Taner, T. & Antony, J., (2006). Comparing Public and Private Hospital Care Service Quality in Turkey. *Leadership in Health Services*, 19(2), 1-10.
- Van Iwaarden, J., & van D., Ball, L., & Millen, R. (2003), Applying SERVQUAL to Websites: An Exploratory Study, *International Journal of Quality & Reliability Management*, 20(8), 919-935.
- Yousapronpaiboon, K., & Johnson, W. (2013). Out-Patient Service Quality Perceptions in Private Thai Hospitals. *International Journal of Business and Social Science*, 4(2), 57-66.