

IMPACT OF SERVICE QUALITY DIMENSIONS ON HOSPITAL IMAGE: THE MEDIATING ROLE OF PATIENT SATISFACTIONS

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Abstract: This study investigates the impact of service quality dimensions i.e. health, administrative and hotel on the hospital image. Furthermore, it identifies patient satisfaction as a mediator on the relationship between services quality dimensions and hospital image. Survey data gathered from 219 patients in Jordanian hospitals. Results show that all dimensions of services quality have positive effect on both hospital image and patient satisfaction. However, patient satisfaction mediate only the relationship between administrative and hotel services quality dimensions and the hospitals image.

Keywords: Service Quality, Patient Satisfaction, Hospital Image.

1. INTRODUCTION

As a result of accelerated changes under which healthcare organizations are working in and because of the highly competitiveness, these organizations should not only have interest in increasing market share by attracting new customers, but also have to satisfy and retain current customers as the cost of acquiring new customers is five times higher than the cost of maintaining the current ones (Keaveney, 1995). Therefore, many healthcare organizations are seeking to prevent customer from shifting to competitors' through providing high quality services that satisfy their needs and desires (Sabharwal, Soch & Kaur, 2010).

In 2013, total expenditure on healthcare services in Jordan was estimated at approximately (US\$ 375) per capita (World Health Organization, 2015). However, growing expectations of today's patients and increased competition in health sector – more than 64 private hospitals in Jordan (Moh.gov.jo, 2013) – made the primary focus of each Healthcare organizations on how to make a bold move to cement their status.

Thus, as patients are the consumers who use the medical services, it is of a vital importance to investigate more about their perceptions from various variables.

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However, there are limited studies in literature on patients' perceptions of service quality, satisfaction, and hospital image which are still relatively inadequate in the healthcare context. Therefore, this study aims to investigate and give more insight into the inter-relationship among these variables. More specifically, it will examine the influence of three service quality dimensions i.e. health, administrative, and hotel on hospital image, and investigate patient satisfaction as a mediator on the relationship between these three dimensions and hospital image.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

2.1. Service Quality

It is considered as one of the most important and critical factors that help organizations achieve success and stability in the market, as it enhances the competitive advantage of the organization's and its superiority in the long term (Bon & Mustafa, 2013).

However, the concept of quality in Healthcare organizations varies depending on the categories of people who are either working in or dealing with the organization, and how they see and evaluate the concept of quality from their own perspectives (Birdogan & Iskender, 2015). For administration, quality means providing the best human and material elements necessary to provide the service, performing continuous evaluation of services provided by doctors and other service providers, and training human resources to ensure the continuous improvement of these services. As for the patients, quality means treating her/him with full respect, attention, sympathy and understanding from all human elements dealing directly or indirectly with her/him during his stay in the hospital. Whereas, for doctors, quality means providing the highest level of knowledge, skills, and medical equipment and devices to take care of patients (Nusirat, 2008).

While the ultimate objective of healthcare is to maintain or improve health status, there are other features of care that are often considered important for quality such as hotel and administrative issues. Therefore, the current study investigate the service quality from three dimensions namely hotel service quality (HoSQ), health service quality (HeSQ), and administrative service quality (AdSQ).

Health service quality is refer to the extent to which health services rise the probability of preferred health results and are consistent with current professional knowledge (Lohr, 1990). Administrative service quality refers to service aspects that offer backing services for efficient running and functioning of healthcare services in the hospital (Christiansen, Turkina & Williams, 2013; Sultan & Yin Wong, 2013). Several studies have investigated the relationship of the administrative

service quality on satisfaction in elementary school (Yeh, 2011) and the effect of AdSQ on public satisfaction and government reputation (Lv, & Wang, 2010).

In spite of broadly different aims, hospitals and hotels share many core functions and features. Both are offering similar facilities such as pre-admissions, check-in process, stay, discharge, and post-stay experience. However, hospitals must do more than a hotels to ensure patients' comfort and satisfaction (Kliot, Rolston, Treadway, Zygorakis & Chang, 2014).

2.2. Hospital Image

It is the perceptions of a hospital in patient memory (Keller, 1993). In fact, good image helps organizations to enter into new markets faster, enhance ability to expand services (Ruyter & Wetzels, 2000), attract efficient staff, build reputation, promote services (Alves & Raposo, 2010), give positive feelings to consumers and differentiate the brand (Aaker, 1991).

Therefore, the good image is considered as a high-value strategy tool for the organization, and used as a competitive advantage since the fact that it is difficult to imitate it and need a long time to be build and require huge financial and human investment (Akýn & Demirel, 2011). Therefore, healthcare organizations should ensure the removal of any negatives that may damage that image and try to invest heavily to build good image in the memory of stakeholders (Akýn & Demirel, 2011; Hart & Rosenberger, 2004).

Many researchers (Kuo & Ye, 2009; Kandampully & Hu, 2007; Nguyen, 2006) pointed out that there are two main components to formulate the image of the organization: the functional component and the emotional component. While, the functional component is related to the physical dimensions of the organization, the emotional component is related to psychological dimensions such as feelings and attitudes towards the organization. Arid (2012) also confirmed that the organization image is a personal and subjective, and it varies from one person to another and within the same group as long as they are based on feelings, knowledge and past experiences.

2.3. Patient Satisfaction

It is defined as whether a service meets consumer needs and expectations (Zeithaml & Bitner, 2000). In healthcare setting, satisfaction is defined as patient's perceived value and her/his continuous reaction to service before, during and after the utilization of healthcare services (Kim, Cho, Ahn, Goh & Kim, 2008).

Customer satisfaction is a goal sought by any organization concerned with creating value for its customers through anticipating their needs and to having the ability and responsibility to satisfy those needs (Dominici & Guzzo, 2010).

Many researchers (Anderson & Sullivan, 1993; Wirtz & Bateson, 1999; Johnson, Gustafsson, Andreassen, Lervik & Cha, 2001) found that the two key factors determining the satisfaction are the perceived quality and value. However, customer loyalty and positive word-of-mouth are the consequences of that satisfaction. Therefore, organizations with a high level of satisfaction pay lower costs for attracting new customers through the positive word-of-mouth of its customers who encourage others to deal with it (Hekkert, Cihangir, Kleefstra, Berg & Kool, 2009).

2.4. The relationship among service quality, hospital image and patient satisfaction

Many researchers (Dominici & Guzzo, 2010; Singh, 2013) have suggested that healthcare organizations should move towards polishing their image, providing continuously quality services to patients and satisfying them. Ekiz (2009) found that that service organizations are losing annually on average 20% of its customers and most of that loss is due to the decline in the service quality provided to the customers. Brown (2010) also noted that service organizations need twenty years to build a good reputation in the memory of customers and stakeholders, and they need only 5 minutes to destroy that reputation. In fact, one poor service experienced by a client with the organization could alter the positive image of the organization in his/her memory to a negative one (Polat, Abat & Tezyürek, 2010). Therefore, it is clear that quality of service provided to the customers will affect positively or negatively the organization's image. Thus, in order to build a good image and reputation, service organization should be committed to the culture of quality service towards its customers (Bunthuwun, Sirion & Howard, 2010; Lai, Griffin & Babin, 2008; Kandampully & Hu, 2007). Thus, there exists a sound rationale for theorizing the following hypotheses:

H1a: Health Services Quality has significant effect on Hospital Image.

H1b: Administrative Services Quality has significant effect on Hospital Image.

H1c: Hotel Services Quality has significant effect on Hospital Image.

Prajogo and Cooper (2010) found that the service quality enhance the competitiveness of the service organization by focusing on customer satisfaction. This was also confirmed by Saravanan and Rao (2007) that the service quality plays an important and vital role in strengthening the competitiveness in the global market that is constantly changing.

Haydar, Agdelen and Ersoz (2010) found that a critical challenge for Healthcare organizations is to find ways to orient themselves more towards the customer, and make their services more responsive to the needs and expectations of patients.

Christie (2002) emphasized that in Healthcare organizations where they provide the same services, it is important to Healthcare organization to distinct itself from others to remain competitive, especially with globalization that we live in. Also, Singh (2013) found that the global competition have helped service organizations to deliver a variety of integrated quality services to customers achieved their satisfaction. These findings are compatible with many studies confirm the existence of a positive relationship between the service quality provided and the Patient Satisfaction (Ghrab, 2015; Gok & Sezen, 2013; Sodani & Sharma 2011). Thus the following hypotheses were considered:

H2a: *Health Services Quality* has significant effect on *Patient Satisfaction*.

H2b: *Administrative Services Quality* has significant effect on *Patient Satisfaction*.

H2c: *Hotel Services Quality* has significant effect on *Patient Satisfaction*.

H3: *Patient Satisfaction* has significant effect on *Hospital Image*.

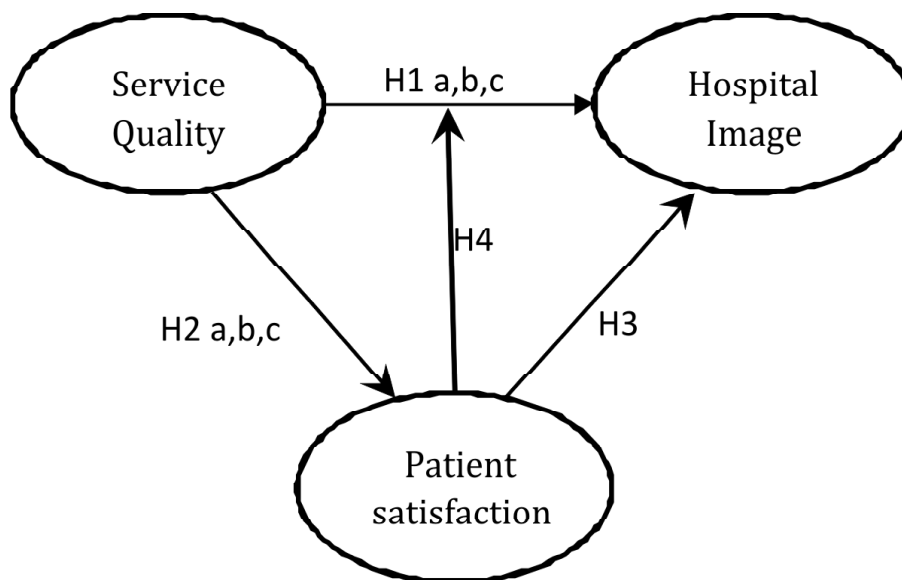
H4a: *Patient Satisfaction* mediates the interactive effects of *Health Services Quality* on *Hospital Image*.

H4b: *Patient Satisfaction* mediates the interactive effects of *Administrative Services Quality* on *Hospital Image*.

H4c: *Patient Satisfaction* mediates the interactive effects of *Hotel Services Quality* on *Hospital Image*.

Therefore, the proposed research model was formulated as following (Figure 1):

Figure 1: The Proposed Research Model



3. RESEARCH METHODOLOGY

To collect data, a structured questionnaire has been developed from existing measurement scales. Service quality dimensions were measured by Apo Shokr (2012) 24-item scale with respect to the three dimensions i.e. health, administrative and hotel. Cameran, Moizer and Pettinicchio (2010) 9-item scale was used to measure hospital image. In addition, Iglesias (2009) 7-item scale was used to measure patient satisfaction

Using researcher controlled sampling, data was collected from 219 patients in five private hospitals namely (Jordan, the Islamic, Ibn Al-Haytham, Isra, and Specialist) located in Amman, the capital of Jordan.

To test the hypotheses, simple, multiple, and hierarchical regression have been used.

4. ANALYSIS AND FINDINGS

4.1. Scale Reliability

Reliability of the scale has been estimated using Cronbach's Alpha where the results show high values of consistency, as illustrated in Table (1).

Table 1
Mean, Standard Deviation, No. of items, Cronbach's alpha and correlations among variables

<i>Variables</i>	<i>M</i>	<i>S.D</i>	<i>No. of Items</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
I Health Services Quality	4.1901	.49428	8	(.901)				
II Administrative Services Quality	3.9127	.58680	8	.759**	(.917)			
III Hotel Services Quality	4.0668	.58621	8	.676**	.753**	(.858)		
IV Hospital Image	4.1155	.47439	9	.545**	.382**	.549**	(.723)	
V Patient Satisfaction	4.0944	.56265	7	.589**	.618**	.621**	.563**	(.786)

Values in parentheses indicate the Cronbach's alpha reliability estimates. N=219. **. Correlation is significant at the 0.01 level (2-tailed).

4.2. Hypotheses Testing

Hierarchical multiple regression analysis has been used to test the hypotheses of the study and the mediated model (Muller et al., 2005), using the statistical program SPSS.

H1a,b,c: Services Quality Dimensions and Hospital Image: To test hypotheses H1 a, b, c, multiple regression analysis was used (Table 2). The proposed model appears valid as the value of F was (47.191) with a level of significance (.000) which is lower than the level of significance ($\alpha \leq 0.05$). The service quality in this model explains (39.7%) of the variance in the dependent variable i.e. Hospital Image. This explanatory power is relatively acceptable, which indicates that there is a statistically significant effect of the quality of health, administrative and hotel services on the hospital image. From the Beta coefficient, it is clear that hotel services quality has the most impact on the image, followed by the health services quality and then by administrative service quality.

Table 2
Results of multiple regression analysis for the effect of SQ dimensions on HI

<i>Variables</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R²</i>	<i>F</i>	<i>Sig</i>
Health Services Quality	.483	5.760	.000	.397	47.191	.000
Administrative Services Quality	.353	-3.759	.000			
Hotel Services Quality	.489	5.889	.000			

H2a,b,c: Services Quality Dimensions and Patient Satisfaction: Results of the multiple regression analysis (Table 3) show that the suggested model is valid as the value of F was (59.836) with a level of significance (.000) which is lower than the level of significance ($\alpha \leq 0.05$).

The service quality in this model explains (45.5%) of the variance in the dependent variable i.e. Patient Satisfaction. This explanatory power is relatively acceptable, which indicates that there is a significant effect of *Services Quality* on *Patient Satisfaction*.

The results show that the health, administrative and hotel services quality have statistically significant effect on the Patient Satisfaction.

The results of Beta coefficient show that hotel services quality has the most impact on the Patient Satisfaction, followed by the administrative services quality and then by health service quality.

Table 3
Results of multiple regression analysis for the effect of SQ dimensions on PS

<i>Variables</i>	<i>Beta</i>	<i>t</i>	<i>Sig.</i>	<i>R²</i>	<i>F</i>	<i>Sig</i>
Health Services Quality	.208	2.608	.010	.455	59.836	.000
Administrative Services Quality	.229	2.564	.011			
Hotel Services Quality	.308	3.896	.000			

H3: Patient Satisfaction and Hospital Image: Results of the simple regression analysis (Table 4) show that the suggested model is valid as the value of F was (100.676) with a level of significance (.000) which is lower than the level of significance ($\alpha \leq 0.05$).

The patients satisfaction in this model explains (45.5%) of the variance in Hospital Image (dependent variable). This explanatory power is relatively acceptable, which indicates that there is a statistically significant effect of Patient Satisfaction on Hospital Image.

Table 4
Results of simple regression analysis for the effect of PS on HI

Variables	Beta	t	Sig.	R ²	F	Sig
Patients' Satisfaction	.563	10.034	.010	.317	100.676	.000

H4 a,b,c: Patient Satisfaction as Mediator: Hypothesis H4a: Results of the hierarchical regression analysis (Tables 5) test whether the *Patient Satisfaction* mediates the interactive effects of *Health Services Quality* on *Hospital Image*.

Both the *Base and Reduced models* appears valid as the value of F was (91.817, 68.102) with a level of significance (.000, .000) with explanatory power of (29.7%, 38.7%) consequently. However, the *Full Model* appears not valid as the value of F was (46.574) without a significance level (.112) which is more than the level of significance ($\alpha \leq 0.05$). Thus, results shows that the Patient Satisfaction has significantly not interacted with the *health service quality* to predict the *hospital image*.

Table 5
Results of hierarchical regression analysis for the mediator effect of PS on the relationship between HoSQ and HI

Variables	Base Model			Reduced Model			Full Model		
	B	T	Sig	B	t	Sig	B	T	Sig
Health Services Quality	.523	9.582	.000	.314	4.958	.000	-.173	-.556	.579
Patients' Satisfaction	-	-	-	.312	5.611	.000	-.164	-.540	.590
Interaction (Health Services Quality with Patients' Satisfaction)	-	-	-	-	-	-	.119	1.595	.112
R ²	%29.7			%38.7			%39.4		
F	91.817			68.102			46.574		
Sig	.000			.000			.000		

Hypothesis H4b: Results of the hierarchical regression analysis (Tables 6) test whether the *Patient Satisfaction* mediates the interactive effects of *administrative Services Quality* on *Hospital Image*.

All the *Base*, *Reduced* and *full models* appears valid as the value of F was (36.975, 50.525, and 36.102) with a level of significance (.000, .000, and .023) which is less than the level of significance ($\alpha \leq 0.05$) with explanatory power of (14.6%, 31.9%, and 33.5%) consequently. Thus, results shows that the Patient Satisfaction has significantly interacted with the *Administrative service quality* to predict the *hospital image*.

Table 6
Results of hierarchical regression analysis for the mediator effect of PS on the relationship between AdSQ and HI

Variables	Base Model			Reduced Model			Full Model		
	B	T	Sig	B	t	Sig	B	T	Sig
Administrative Services Quality	.308	6.081	.000	.044	.757	.450	-.505	-2.054	.041
Patients' Satisfaction	-	-	-	.446	7.409	.000	-.078	-.331	.741
Interaction (Administrative Services Quality with Patients' Satisfaction)	-	-	-	-	-	-	.136	2.294	.023
R ²	%14.6			%31.9			%33.5		
F	36.975			50.525			36.102		
Sig	.000			.000			.000		

Hypothesis H4c: Results of the hierarchical regression analysis (Tables 7) test whether the *Patient Satisfaction* mediates the interactive effects of *Hotel Services Quality* on *Hospital Image*.

Table 7
Results of hierarchical regression analysis for the mediator effect of PS on the relationship between HoSQ and HI

Variables	Base Model			Reduced Model			Full Model		
	B	T	Sig	B	t	Sig	B	T	Sig
Hotel Services Quality	.444	9.680	.000	.263	4.764	.000	-.485	-1.986	.048
Patient Satisfaction	-	-	-	.305	5.296	.000	-.473	-1.862	.064
Interaction (Hotel Services Quality with Patient Satisfaction)	-	-	-	-	-	-	.191	3.141	.002
R ²	%30.2			%38.2			%40.9		
F	93.709			66.717			49.594		
Sig	.000			.000			.000		

All the *Base, Reduced and full models* appears valid as the value of F was (93.709, 66.717, and 49.594) with a level of significance (.000, .000, and .002) less than the level of significance ($\alpha \leq 0.05$) with explanatory power of (30.2%, 38.2%, and 40.9%) consequently. Thus, results shows that the Patient Satisfaction has significantly interacted with the *Hotel service quality* to predict the *hospital image*.

5. SUMMARY AND DISCUSSION

All hypotheses have been supported except H4a (Table 5).

Service Quality & Hospital Image: health, administrative and hotel Service Quality dimensions found to affect the Hospital Image. These findings are also consistent with several studies such as (Bunthuwun, *et. al.*, 2010; Kandampully & Hu, 2007).

Service Quality & Patient Satisfaction: The results explain how the quality of health, administrative and hotel services provide by private hospitals to patients will be reflected positively or negatively on Patient Satisfaction. These results are consistent with several studies (Sudin, 2011; Lai, *et al.*, 2008; Hart & Rosenberger, 2004), which refer to the positive impact of the quality of service provided to the customer's satisfaction.

Patient Satisfaction & Hospital Image: The results show that the Patient Satisfaction has an effect on the hospital image. The results show that whenever the patients are satisfied with the hospital, they will have a positive image of that hospital. These results are consistent with several studies confirmed the existence of a direct impact of customer satisfaction on the image of the service organization. Based on these result, the third hypothesis was supported.

Patient Satisfaction as Mediator: Findings show that patient satisfaction mediate only the relationship between the administrative and hotel service quality and the hospital image. This result is consistent with study of Kuo and Ye, (2009) which proved the existence of the effect of customer satisfaction as the dependent variable and the broker on the relationship between the quality of service provided and the mental image. Thus, H4b and H4c were supported.

However, patient satisfaction did not mediate the relationship between the Health service quality and the hospital image. Thus, H4a was not supported.

6. MANAGERIAL IMPLICATIONS

The findings of the study provide valuable insights not only to academic researchers but also to healthcare professionals in private hospitals in Jordan.

From a theoretical perspective, the research model reinforce previous research findings and provides a better understanding of the inter-relationships between Service Quality and Hospital Image and increase the power of explanation of patient satisfaction as controlling this relationship.

In addition, the results of the current study draw several implications, hospital managers can utilize this information when formulating hospital image policies and strategies; they should be aware of effect of service quality toward hospital image; they need to continuously perform a performance measurement to gain access to continuous improvement; they should consolidate quality culture with various medical and administrative staff through awareness programs; and they should rehabilitate the staff working in coordination with all the departments of hospital that oversees fully the quality issues and keep the best results that have been achieved in order to achieve patient satisfaction.

Moreover, to build a positive image in patients, managers should improve the service quality provided and focus on having competitive advantages, such as: quality service, reliability, speed of response, and safety. Therefore, private hospitals should provide excellent services to patients through supplying hospital with all modern instruments and equipment, attracting qualified specialists, and provide training courses from different disciplines and levels for employees in their respective fields.

In addition, managers should emphasis on providing health services in time without any delay and show empathy and attention to the needs and wants of patients and offer them good reception and treatment. They should provide quality food with sufficient quantity and focus on improving the level of cleanliness in all departments, facilities, rooms and corridors.

7. LIMITATIONS AND FUTURE DIRECTIONS:

Firstly, the sample used in this research compromises only private hospitals in Jordan, which limits the generalizability of the findings. *Secondly*, several important variables have that may affect hospital image are not considered in this model, such as loyalty and service value. Therefore, future researchers may take into consideration using a more representative population of patients and examine the differences between inpatient and outpatient. Furthermore, researchers need to examine other variables that could further explain patient's image in the healthcare context.

References

- Aaker, D. (1991). *Managing brand equity*. New York: Free Press.
- Akın, E. & Demirel, Y. (2011). An Empirical Study: Are Corporate Image Relation Satisfaction and Identification with Corporate Influential Factors on Effectiveness of Corporate Communication and Consumer Retention. *European Journal of Social Sciences*, 23(1), 128-153.
- Alves, H. & Raposo, M. (2010). The Influence of University Image on Student Behavior, *International Journal of Educational Management*, 24(1), 73-85.
- Anderson, E., & Sullivan, M. (1993). The Antecedents and Consequences of Customer Satisfaction for Firms. *Marketing Science*, 12(2), 125-143. <http://dx.doi.org/10.1287/mksc.12.2.125>
- Apo Shokr, A. (2012). *The Impact of Using Information Technology of the Private Hospitals on the Quality of Services: An Applied Study on a Sample of Private Hospitals in the City of Amman from the Perspective of the Employees and the Clients* (Master). Middle East University.
- Birdogan, B., & Iskender, P. (2015). An Integrated Evaluation Model for Service Quality of Hospitals: A Case Study from Turkey. *Journal of Multiple-Valued Logic & Soft Computing*, 24(5/6), 453-474.
- Bon, A., & Mustafa, E. (2013). Impact of Total Quality Management on Innovation in Service Organizations: Literature Review and New Conceptual Framework. *Procedia Engineering*, 53, 516-529. <http://dx.doi.org/10.1016/j.proeng.2013.02.067>
- Brown, R., (2010). Reputation Management. *Business Information Review*, 27(1) 56-64.
- Bunthuwun, L., Sirion, C., & Howard, C. (2010). Effective customer relationship management of health care: a study of the perceptions of service quality, corporate image, satisfaction, and loyalty of Thai outpatients of private hospitals in Thailand. *ASBBS Annual Conference: Las Vegas*, 17(1), 198-210.
- Cameran, M., Moizer, P., & Pettinicchio, A. (2010). Customer satisfaction, corporate image, and service quality in professional services. *The Service Industries Journal*, 30(3), 421-435. <http://dx.doi.org/10.1080/02642060802236111>
- Christiansen, B., Turkina, E., & Williams, N. (2013). *Cultural and technological influences on global business*. Hershey PA: Business Science Reference.
- Christie, D. (2002). *A Trilateral Model for the Management of Corporate Image: an Examination of the Inter-relationship between an Organizations Self Image, its Projected Image and its Perceived Image* (Ph.D.). Griffith University.
- Dominici, G., & Guzzo, R. (2010). Customer Satisfaction in the Hotel Industry: A Case Study from Sicily. *International Journal of Marketing Studies (IJMS)*, 2(2). <http://dx.doi.org/10.5539/ijms.v2n2p3>
- Ekiz, E. (2009). Mapping Out Factors Constraining Tourist Complaints: Hints for Managers Who Wish To Hear More. *Asian Journal of Business Management*, 1(1), 6-18.
- Gok, M., & Sezen, B. (2013). Analyzing the ambiguous relationship between efficiency, quality and patient satisfaction in healthcare services: The case of public hospitals in Turkey. *Health Policy*, 111(3), 290-300. <http://dx.doi.org/10.1016/j.healthpol.2013.05.010>
- Hart, A., & Rosenberger, P. (2004). The Effect of Corporate Image in the Formation of Customer Loyalty: An Australian Replication. *Australasian Marketing Journal (AMJ)*, 12(3), 88-96. [http://dx.doi.org/10.1016/s1441-3582\(04\)70109-3](http://dx.doi.org/10.1016/s1441-3582(04)70109-3)

- Hatem, G. (2015). Service Quality and Patients' satisfaction in Tunisian Public Hospitals. *European Researcher*, 94(5), 365-372. <http://dx.doi.org/10.13187/er.2015.94.365>
- Haydar, A., Agdelen, Z., & Ersoz, B. (2010). Application of Fuzzy-Neural System in the Analysis of the Relationship between Patient Satisfaction and Service Quality of Governmental Hospitals in TRNC. *International Journal of Academic Research*, 2(3), 58-62.
- Hekkert, K., Cihangir, S., Kleefstra, S., Berg, B., & Kool, R. (2009). Patient satisfaction revisited: A multilevel approach. *Social Science & Medicine*, 69(1), 68-75. <http://dx.doi.org/10.1016/j.socscimed.2009.04.016>
- Iglesias, V. (2009). The attribution of service failures: effects on consumer satisfaction. *The Service Industries Journal*, 29(2), 127-141. <http://dx.doi.org/10.1080/02642060802293088>
- Johnson, M., Gustafsson, A., Andreassen, T., Lervik, L., & Cha, J. (2001). The evolution and future of national customer satisfaction index models. *Journal of Economic Psychology*, 22(2), 217-245. [http://dx.doi.org/10.1016/s0167-4870\(01\)00030-7](http://dx.doi.org/10.1016/s0167-4870(01)00030-7)
- Kalepu, P., & Naga, R. (2014). Service Quality in Healthcare Sector: An Exploratory Study on Hospitals. *Journal of Marketing Management*, 13(1), 7-28.
- Kandampully, J., & Hu, H. (2007). Do hoteliers need to manage image to retain loyal customers?. *Int J Contemp Hospitality Mngt*, 19(6), 435-443. <http://dx.doi.org/10.1108/09596110710775101>
- Kang, G., & James, J. (2004). Service quality dimensions: an examination of Grönroos's service quality model. *Managing Service Quality*, 14(4), 266-277. <http://dx.doi.org/10.1108/09604520410546806>
- Keaveney, S. M. (1995). Customer Switching Behavior in Service Industries: An Exploratory Study. *Journal of Marketing*, 59(2), 71-82. <http://doi.org/10.2307/1252074>
- Keller, K. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1-22. <http://dx.doi.org/10.2307/1252054>
- Kim, Y., Cho, C., Ahn, S., Goh, I., & Kim, H. (2008). A study on medical services quality and its influence upon value of care and patient satisfaction – Focusing upon outpatients in a large-sized hospital. *Total Quality Management & Business Excellence*, 19(11), 1155-1171. <http://dx.doi.org/10.1080/14783360802323594>
- Kliot, M., Rolston, J., Treadway, J., Zygorakis, C., & Chang, S. (2014). What do hotels and hospitals have in common? How we can learn from the hotel industry to take better care of patients. *Surgical Neurology International*, 5(3), 49. <http://dx.doi.org/10.4103/2152-7806.128913>
- Kuo, Y., & Ye, K. (2009). The causal relationship between service quality, corporate image and adults' learning satisfaction and loyalty: A study of professional training programmes in a Taiwanese vocational institute. *Total Quality Management & Business Excellence*, 20(7), 749-762. <http://dx.doi.org/10.1080/14783360903037085>
- Lai, F., Griffin, M., & Babin, B. (2008). How Quality, Value, Image, and Satisfaction Create Loyalty at A Chinese Telecom. *Journal of Business Research*, 62(10), 980-986.
- Lohr, K. N. (1990). Medicare: A Strategy for Quality Assurance, Volume 1. Washington, DC: National Academy Press. [Institute of Medicine report available on the Internet at <http://www.nap.edu/catalog/1547.html>]
- Lv, W., & Wang, Y. (2010). Effects of public-perceived administrative service quality on public satisfaction, government reputation and public trust: An empirical analysis based on the

- local governments of China. In *Service Systems and Service Management (ICSSSM), 2010 7th International Conference on* (pp. 1-6). IEEE.
- Moh.gov.jo (2013). *Private-Hospitals*. Retrieved 21 October 2015, from <http://www.moh.gov.jo/EN/HealthSectorBodies/Pages/Private-Hospitals.aspx>
- Mohamad, M. & Awang, Z. (2009). Building Corporate Image and Securing Student Loyalty in the Malaysian Higher Learning Industry. *The Journal of International Management Studies*, 4(1), 30-40.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When Moderation is Mediated and Mediation is Moderated. *Journal of personality and social psychology*, 89(6), 852-863.
- Muller, D., Judd, C., & Yzerbyt, V. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology*, 89(6), 852-863. <http://dx.doi.org/10.1037/0022-3514.89.6.852>
- Nguyen, N. (2006). The collective impact of service workers and servicescape on the corporate image formation. *International Journal of Hospitality Management*, 25(2), 227-244. <http://dx.doi.org/10.1016/j.ijhm.2005.06.001>
- Nguyen, N., & Leblanc, G. (2002). Contact personnel, physical environment and the perceived corporate image of intangible services by new clients. *International Journal of Service Industry Management*, 13(3), 242-262. <http://dx.doi.org/10.1108/09564230210431965>
- Nusirat, F., (2008). Management of Healthcare organizations, *Dar Almasira*, Amman, 58.
- Padma, P., Rajendran, C., & Sai Lokachari, P. (2010). Service quality and its impact on customer satisfaction in Indian hospitals. *Benchmarking: An International Journal*, 17(6), 807-841. <http://dx.doi.org/10.1108/14635771011089746>
- Polat, S., Abat, E., & Tezyürek, S. (2010). The Perceived Corporate Image of Private Secondary Schools by Students' and Parents' Views. *European Journal of Educational Studies*, 2(2), 65-76.
- Prajogo, D., & Cooper, B. (2010). The effect of people-related TQM practices on job satisfaction: a hierarchical model. *Production Planning & Control*, 21(1), 26-35. <http://dx.doi.org/10.1080/09537280903239383>
- Ruyter, K., & Wetzels, M. (2000). The role of corporate image and extension similarity in service brand extensions. *Journal of Economic Psychology*, 21(6), 639-659. [http://dx.doi.org/10.1016/S0167-4870\(00\)00024-6](http://dx.doi.org/10.1016/S0167-4870(00)00024-6)
- Sabharwal, N., Soch, H., & Kaur, H. (2010). Are we satisfied with incompetent services? A scale development approach for service recovery. *Journal of Services Research*, 10(1), 125-142.
- Saravanan, R., & Rao, K. (2007). The impact of total quality service age on quality and operational performance: an empirical study. *The TQM Magazine*, 19(3), 197-205. <http://dx.doi.org/10.1108/09544780710745621>
- Singh, P. (2013). Comparison of service quality between private and public hospitals: empirical evidences from Varanasi district in UP. *Paradigm*, 17(1-2), 37-46.
- Sodani, P. R., & Sharma, K. (2011). Assessing patient satisfaction for investigative services at public hospitals to improve quality of services. *National Journal of Community Medicine*, 2(3), 404-408.

- Sodani, P. R., & Sharma, K. (2011). Assessing patient satisfaction for investigative services at public hospitals to improve quality of services. *National Journal of Community Medicine*, 2(3), 404-408.
- Sultan, P., & Yin Wong, H. (2013). Antecedents and consequences of service quality in a higher education context. *Quality Assurance in Education*, 21(1), 70-95. <http://dx.doi.org/10.1108/09684881311293070>
- Wirtz, J., & Bateson, J. E. (1999). Consumer satisfaction with services: integrating the environment perspective in services marketing into the traditional disconfirmation paradigm. *Journal of Business research*, 44(1), 55-66.
- World Health Organization. (2015). *Jordan: WHO statistical profile*. Country Health Profile. Retrieved 21 October 2015, from <http://www.who.int/gho/countries/jor.pdf?ua=1>
- Yeh, Y. C. (2011). Evaluating administrative service quality of elementary schools: A case study of a remote rural area in Taiwan. *African Journal of Business Management*, 5(14), 5966-5973.
- Zeithaml, V., & Bitner, M. (2000). *Services marketing*. Boston: Irwin/McGraw-Hill.

