

Total quality management practices and their effects on the quality performance of Jordanian private hospitals

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ABSTRACT

This research determines to evaluate the level of implementing Total Quality Management (TQM) and examine the relationship between dimensions of TQM and Quality performance in the accredited Jordanian Private Hospitals. The study used a survey questionnaire as the main data collection. The total respondents used were 330, where 140 respondents were from five Private Jordanian Hospitals, resulting in a 42.4% response rate. The confirmatory factor analyses (CFA) and multiple linear regression were used to study data analyses. The results revealed that the level of TQM implementation in Private Jordanian Hospitals was high. Besides, a significant was found between TQM dimensions with quality performance. The study found that leadership commitment and Support to Quality, strategic quality planning, information and data, training and participation, customer focus, and continuous improvement have been found to have significant impacts on quality performance. This study can raise the attentiveness of the important strategy of TQM, which could help Hospitals managers have an enhanced understanding of the benefits of practicing TQM and therefore enable Quality Performance within their Hospitals.

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1. Introduction

Due to the competitive, complex, and dynamic environment in which hospitals operate, the healthcare delivery service becomes more difficult, challenging, and sophisticated for leaders, suppliers, and employees (Aburayya et al., 2019). A cording to Hietschold et al. (2014) implementing the quality concept is a complex and difficult process, and benefits cannot be easily achieved there is a dispute surrounding the mechanisms and models of the healthcare delivery service to be implemented so that this process is effective (Nguyen & Nagase, 2019). However, there is a universal agreement that healthcare requires a continuous process of quality improvement (Aburayya et al., 2019). Many authors strongly argue that attempts to quality of improving many methodologies and tools to quality management, and improvement of continuous have been taken, in particular, and the concept of TQM is recommended (Abdallah et al., 2013; Arumugam, 2008; Bani-Hani & Al-Omari, 2012). Furthermore, one of the most important elements in the success of TQM is the measurement of quality performance (Benzaquen et al., 2019; Prajogo, 2005; Prajogo & Sohal, 2006). There is always a need to implement TQM in health care institutions to recognize requirements of the customer, a standard for best practices, improve processes for providing suitable care and severity of medical errors (Ozdal & Oyebamiji, 2018). According to Macinati (2008) the implementation of TQM may achieve high-quality care; improve patient satisfaction, improved employee morale, increase productivity, and profitability. Moreover, the implementation of the success of TQM in the health-care sector encouraged hospital leaders to check if it can work in hospitals (Aburayya et al., 2019). As a result, many managers have increasingly applied TQM dimensions to improve the results of the quality and efficiency in the hospitals (Macinati, 2008). Despite numerous studies conducted on TQM in various industries, there is a disagreement about its definition, framework, and models (Aburayya et al., 2019; Benzaquen et al., 2019). Past studies research examines the relationship between TQM and quality performance perspective. Some studies

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find positive results (Prajogo, 2005). Some studies failed to find any important correlation and positive results (Arumugam et al., 2008). In light of these results, a deeper examination is needed on the relationship between TQM dimensions and performance from a quality perspective. Therefore, the purposes of this research are:

- To determine the level of TQM in Jordanian Private Hospitals,
- To examine the relationships between dimensions of TQM and performance from a quality perspective within Jordanian Private Hospitals.

Jordan has become known as a major destination for medical tourism, and it ranks first in the region and among the top 10 countries in the world (Private Hospitals Association Jordan, 2020). 70% of the gross domestic product (GDP) of the Jordanian economy comes through the Jordanian services sector (Samawi et al., 2018). Jordanian Hospitals, who are one of the major contributors in the sector of the service (Samawi et al., 2018). A quarter-million patients from around the world have got medical services in the Jordanian private hospitals in 2019 (Private Hospitals Association Jordan, 2020). As the volume of spending on the health sector in Jordan is 8.4% of the gross national product (Central Bank of Jordan, 2019). The annual revenue from medical tourism exceeds one billion dollars (Private Hospitals Association Jordan, 2020). In addition to applying international and national quality standards, with 32 hospitals obtaining the accreditation certificate from the Health Institutions Accreditation Council, and 10 hospitals with the international accreditation certificate. As the number of private hospitals exceeds 65% of the total number of Jordan's hospitals; with an investment volume of more than \$ 5 billion, these hospitals employ more than 40,000 employees (Private Hospitals Association Jordan, 2020). This is considering a positive indicator in the public and private health sectors in improving the level of health care in Jordan. As well as, where hospitals provide excellent treatment services (high quality) to provide qualified medical, nursing cadres, and provide the latest medical devices and technology.

Jordan still faces external regional challenges, however, with the crises in neighboring Syria and Iraq causing influxes of refugees, greater health and education costs, and disruption to its trade routes (National Strategy for Health, 2019). Jordanian Private Hospitals face myriad challenges concerning efficiency, improve quality, Increases in health service costs, and a rapidly increasing dependence on technology (A'aqoulah et al., 2016; Al-Serhan, 2017; Al-Shdaifat, 2015; Abu-Aysheh, 2014; Tabibi et al., 2009). Previous studies and reports on the successful comprehensive quality management programs applied in the world encouraged Jordanian managers in private hospitals to present and implement this strategy in their hospitals in the hope of improving quality and efficiency and facing future challenges. (Aburayya et al., 2019, Abdallah et al., 2013, Al-gunmeeyn, 2019). AL-Mhasnah et al. (2018) confirm that despite the private hospitals of the implementation of multiple quality programs such as health accreditation, ISO, and King Abdullah II Excellence Award, the patient satisfaction and is still dropping. El-Tohamy and Al Raoush (2015) recommend that Jordanian Private Hospitals need to apply accreditation standards. Accreditation processes can be used as a tool to improve and support the quality management performance of Jordanian private hospitals, thereby raising the quality of their service and desired performance. Empirical study In the Jordanian hospitals, A'aqoulah et al. (2016) state that the obstacles facing quality management include lack of rewards, an insufficient delegation of authority, lack of training, the insufficient motivation of employees, weak material resources, and a lack of budget allocations to maintain the quality management system. A qualitative study conducted in two private hospitals in Jordan by Al-gunmeeyn. (2019) found that the Hospitals faced three main obstacles to TQM: cost, especially evident from the interviews and document review in both Hospitals; lack of motivation, and low salary and incentives, resistance from doctors, and Staff resistance. Lastly, Abdullah et al. (2013) analyzed the applicability of EFQM in one private hospital. They have proven that when simplifying requirements for EFQM dimensions and training hospital staff, the distinction model becomes applicable in Jordanian hospitals. However, despite the widespread use of TQM in developed countries, little attention was paid to the implementation and evaluation of quality initiatives by organizations in developing countries and even Arab countries (Abu-Aysheh, 2014; Dilber et al., 2005; Mosadeghrad, 2015; Talib et al., 2019). Besides, very few studies regarding the evaluation of the application of TQM in the Jordanian context in general (Al-Zoubi, et al., 2019; 2016; Ali & Alolayyan, 2013; Al-Shdaifat, 2015; Baidoun et al., 2018; Khdour et al., 2016). And, in health care institutions in particular (Algunmeeyn, 2019). Thus, highlight the need for this study.

2. Literature review

2.1 TQM practices

According to Stevenson, (2002) TQM is defined as the philosophy of seeking to meet customer needs, constantly improving quality, and improve performance (Ghanameen, 2019). TQM is important for healthcare organizations to improve the quality of care services; in addition to help them improve their management, achieve more effective organization, increase employee satisfaction, enhance organizational commitment, encourage teamwork between employees and management, and increase patient satisfaction as well as enhancement of their performance (Ali & Alolayyan, 2013, 2011). A global literature review of the past studies on TQM has examined what constitutes TQM and what are the key practices for the success of TQM implementation (e.g. Al-Zoubi et al., 2018; Sila & Ebrahimpour, 2005; Al-Zu'bi & Judeh, 2011). These research studies presented different dimensions necessary for the success of implementing TQM. However, no study identified common dimensions for the successful implementation of TQM. This leads to inconsistency in the previous studies, which made it difficult to conclude the TQM practices that are adapted to obtain the desired results (Prajogo, 2005; Benzaquen et al., 2019). Although, there are some quality award models such as The Deming Prize and Kanji Business Excellence Model, Malcolm

Baldrige National Quality Award, and European Quality Award, which provide a useful frame of reference for industries and help implement TQM and evaluate the results of their business performance (Benzaquen et al., 2019).

Over the years, many organizations have devoted great efforts to adopting QM practices. Few studies evaluated the critical factors affecting quality practices in health care (Al-Zoubi et al., 2018; Miller et al., 2009; Talib et al., 2011). Talib et al. (2011) proposed a conceptual model of TQM practices that influence its implementation in the healthcare industry through selected 15 papers published between 1995 and 2009. 8 supporting TQM practices, such as “top-management commitment, teamwork and participation, process management, customer focus and satisfaction, resource management, organizational behavior and culture, continuous improvement, and training and education” were identified as best practices for TQM implementation in any health care setting. Those practices are claimed as the critical success of (TQM) implementation in health care. Al-Zoubi et al. (2019) carried out systematic literature surveyed to the implementation TQM, involving the review of 25 relevant researched articles found in the databases Science Direct, PUBMED, CINAHL, MEDLINE, and EBSCO between the period of 2005 and 2016. It was revealed that “education and training, continuous quality improvement, patient focus/satisfaction, commitment to senior management, and teamwork” appear to be the main predictors (CSFs) in this review. However, the systematic survey of the literature reveals a dearth of studies on TQM in the health-care context. Sila and Ibrahim-pour, (2005) revealed the most common TQM structures in the previous studies that consist of 18 structures or a framework, i.e. “Commitment and leadership of senior management, customer focus, information and analysis, training, supplier management, strategic planning, employee engagement, human resources management, operations management, teamwork, product and service design, process control, standard comparison, continuous improvement, employee empowerment, Social responsibility, and employee satisfaction, through analyzes of various surveys published in research-based articles between 1989 and 2000”, performed a systematic literature search from 1990 to 2011 in PubMed, CINAHL, EMBASE, Cochrane Library, and Web of Science by Groene, et al. (2013). They identified the most frequent factors in applying total quality management through eighteen research papers conducted in hospitals, which are in descending order “Procedures and process management, Human resource management, training and development, Leadership commitment, Analysis and monitoring, Structures and responsibilities, Patient involvement”. Besides, the absence of well-established instruments to measure quality management systems and the methodological shortcomings of existing instruments call for further research.

Previous studies have shown little studies on developing reliable and valid measurement tools to assess the implementation of TQM dimensions in hospitals (Mosadeghrad, 2015; Xiong et al., 2016). According to Mosadeghrad, (2015) developed a reliable and valid scale to measure the 10 dimensions of TQM: “management and Leadership, planning of Strategic quality, Quality culture, Training and Education, Employee management, Customer management, Supplier management, Resource management, Information management, and Process management”. They found these scales had the most positive effects on TQM success and organizational performance. These scales were measured in Isfahan healthcare Organizations in Iran. They suggested that the instrument should be tested with different groups and in different settings. Last but not least, Xiong et al. (2016) developed an appropriate instrument for measuring quality management practices in large hospitals in China. This instrument originally included 8 installations of QM practices. They are “senior management, quality policy, the role of quality management, training, process management, customer focus, employee relations, quality and analysis information, and supplier quality management.” They were identified as the main combinations of quality management practices. The instrument can help hospital managers gain a better understanding of quality management practices and identify the studies in this literature have addressed the success factors of TQM. For example, Qualitative study conducted in two private hospitals in Jordan by Aljunmeeyn, (2019) found that the “Teamwork, Communication, Training, commitment, and support from the top management” were important facilitators of TQM implementation. In a study on the Indian manufacturing industries, Kumar and Tomar, (2014) found that the “customer focus, leadership, people management, supplier focus, continuous improvement, performance measurement, quality management, knowledge management, process management” as CSF of TQM after reviewed and ranked the various CSF of TQM; Analytic hierarchy process was used. Furthermore, the research of Dilber et al. (2005) in small and medium-size hospitals in turkey, found that CSF of TQM in the Healthcare sector and the study was done to measure the effect of CSF of TQM on business performance. And four factors “top management, customer focus, information and data, supplier management” a positive with the performance of the hospital. In this research study, the developed theoretical framework is based on the previous study which has eight TQM dimensions, namely eight TQM dimensions, namely Leadership Commitment and Spurt to Quality, Training and Participation, process management, Information and Data, Quality Strategic Planning, and customer focus, Supplier quality management, and Continuous Improvement. The reasons for choosing these dimensions are:

- It has been used frequently by different researchers in hospitals.
- These dimensions have been recognized and used by quality award models and different researchers in the hospitals.
- It is closely related to services and the enhancement of quality (Lee et al., 2012; Xiong et al., 2016; Mosadeghrad et al., 2015).

2.2 The relationship TQM and Quality Performance

A large body of empirical evidence indicates that the implementation of TQM improves quality performance in the company. They were measured in different ways and found that TOM implementation and specific practices that better predict performance differs across the globe. (Arumugam et al., 2008; Bulitia et al., 2016; Prajogo& Brown, 2004; Prajogo and Sohal,

2006). Only a few research studies have attempted to examine the relationship between TQM practices and hospitals performance from a Quality perspective (Ali & Alolayyan, 2013; Benzaquen et al., 2019; Prajogo, 2005; Xiong et al., 2016). A proposed framework by Flynn et al. (1994) confirmed that the TQ practices of the input quality performance represent positive outcomes (Prajogo, 2005). Moreover, the process of product design, management of the process, and top-management support yield a positive performance of quality. A study empirical research investigation in service organizations by Hasan and Kerr (2003), discovered that TQM practices like a “top-management commitment, employee involvement, training, supplier quality, quality costs, service design, quality techniques, benchmarking; and customer satisfaction” leads to higher productivity and quality performance.

According to empirical study by Prajogo and Brown (2004), the relationship between TQM practices and quality performance indicated a strong and positive effects within Australian organizations. Moreover, the “product design process, management of the process, and top-management commitment and support” has a significant quality performance. In their study in 122 Malaysian organizations, Arumugam et al. (2008) revealed that TQM practices were found to be partially correlated with quality performance. It is also found that where “senior management, customer focus, and continual improvement” were perceived as dominant TQM practices in quality performance and plays a significant role in implementing quality. But, the remaining six practices showed low discriminating powers. The results of the study by Macinati (2008) showed that the outcome subjective performance was positively related to quality management variables (healthcare professionals’ development participation, Information, data for quality improvement, training, presence, and role of the quality department, top management commitment to quality, management of process, supplier quality management), but there was a lack of a significant statistical relationship between financial performance and quality management in the Italian public health. Furthermore, another research study within small and medium-size hospitals in Turkey by Dilber et al. (2006) investigated the relationship between practices of TQM and quality performance in the hospital industry. The results showed a positive relationship between the performance of the hospital and the 4 factors “process management, quality data, and reporting, employee relations, the role of divisional top management, and quality policy” of quality management. A study conducted in both public and private hospitals in Jordan by Ali Al-Olayan. (2013) revealed that the results an important and positive relationship between each of the eight principles of total quality management and hospital performance, especially in the dimensions of the results of patients and workers. Aburayya et al. (2019) empirically found that leadership, human resource focus, information and analysis, strategic planning, and customer focus were found to have significant and positive effects on patient satisfaction performance in the accredited primary healthcare centers in Dubai. Bulitia et al. (2016) found that a significant positive association between organizational performance and all the four dimensions of quality management practices as indicated above. Specifically, organizational performance (patient satisfaction and effectiveness) has a significant positive association with ICT, process management, organizational performance and workforce management, organizational performance, and Top management support in private health facilities accredited by NHIF in Nairobi. Recommendations were that facilities should continue enhancing and instituting effective quality management practices as these efforts improve patient satisfaction performance. Bani-Hani and Al-Omari, (2012) revealed a strong positive significant correlation between (management commitment and information systems) and quality results within 30 private hospitals in Jordan listed in Private Hospitals Association in Jordan.

Hypothesis 0: TQM dimensions positively affect hospitals' quality performance

- H1: Leadership commitment and support to quality affect hospitals' quality performance.
- H2: Quality strategic planning affects hospitals' quality performance.
- H3: Training and Participation affect hospitals' quality performance.
- H4: Information and Data affect hospitals' quality performance.
- H5: Process management affects hospitals' quality performance.
- H6: Supplier quality management affects hospitals quality performance.
- H7: Customer focus affects hospitals' quality performance.
- H8: Continuous improvement affects hospitals' quality performance.

3. Research Methodology

This study relies on the approach of quantitative and survey design to achieve the research objectives. The designed instrument of the research constructed of TQM literature and Quality performance (Antony et al., 2002; Sohal, 2006, 2003; Talib et al., 2013; Pham, 2020). The questionnaire of the survey is developed based on the mentioned studies. Also, the developed instrument has been validated by presenting it to academics and quality experts, and a pilot survey before being used to collect raw data. Moreover, the study questionnaire was divided into three sections; the first section indicating demographic information for respondents including gender, age, and level of education, current position, and years of experience in Jordanian Private Hospitals. The second section indicating 8 TQM dimensions with 40 items. The third section evaluates the Quality performance of the through 6 items (Talib et al., 2013; Pham, 2020; Xiong et al., 2016). Participants Responses to these questions are scored using a five-point Likert scale, with a value of 1 indicating ‘strongly disagree’, 2 indicating ‘disagree’, the value of 3 indicating moderate, 4 indicating ‘agree’ and a value of 5 indicating ‘strongly agree’. Stratified random sampling was used in accessing the respondents randomly in five selected PJH; (Specialty Hospital, Jordan Hospital, Istishari Hospital, Al-

Khalid Hospital, and Al-Essra Hospital). 330 were the total questionnaires, 140 useable questionnaires were able to be analyzed yielding a 42% response rate. The potential respondents consisted of a top manager, operational and quality managers, senior officer, head of department, supervisors, medical staff, and doctors. The five hospitals chosen in this study are both having an accreditation certificate from Joint Commission International-accredited organizations.

4. Analysis and findings

4.1 Profile of respondents

Fig. 1 shows that the respondent's majority (70.7) were male compared to 29.3% who were female. The groups of age (31-40) and (41-50) show a cause for over two-thirds of the sample (71%). However, this ratio is almost equal to the Position of Current of the same groups. Concerning the divide of participants by Education Level, table 3 displays that the majority of the respondents 50% (50) were Bachelor, 29.3% (26) were Master. For experience less and more than five years, the result was 45% and 55% frequently.

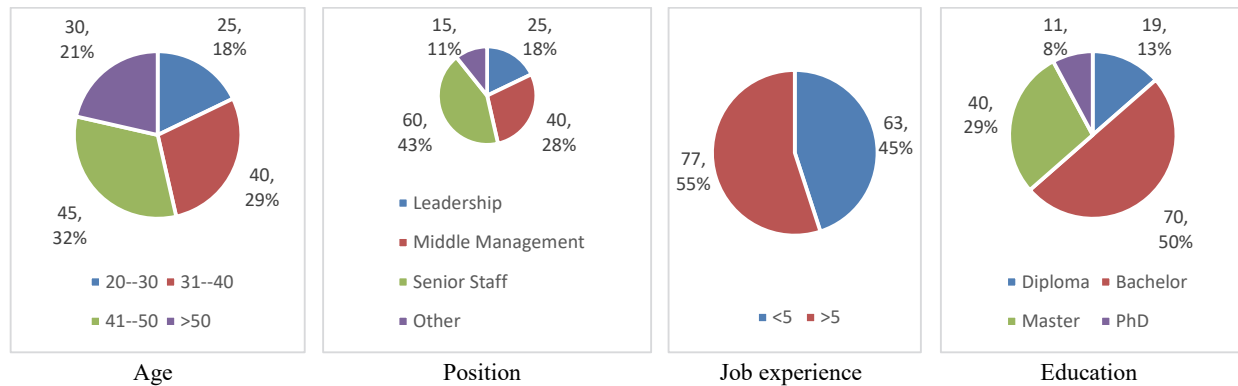


Fig. 1. Personal characteristics of the participants

4.2 Level of TQM Implementation

Table 1 presents descriptive statistics of the study variables for ease of interpretation, the five-point Likert scale ranges are categorized into low, medium, and high equal classes. Therefore, scores below 2.33 [4/3 + lowest value (1)] are low; Scores from 3.67 onwards [Highest Value (5) - 4/3] are considered high and those are considered moderate. Table 1 explains that the degree and extent of implementation of the eight TQM Variables were high implementation level. The Training and Participation Variable in TQM implementation in the targeted hospitals has ranked at the top level of TQM practices compared with the other TQM Variables with a mean of 4.41. Besides, followed by Supplier quality management (3.99), Quality Strategic Planning (3.90), Process Management (3.87), Information and Data (3.82), Continuous Improvement (3.80), Customer Focus (3.72) and Finally, Leadership Commitment and Spurt to Quality (3.68). However, in terms of the QP measure, the mean scores are at a moderate level. Overall, it can be concluded that the TQM implementation level in the primary private hospital in Jordan is highly implemented with a mean of 3.92. Its revised answer the first research question that is, "What is the level of Total Quality Management among the Jordanian Private Hospitals sector?"

Table 1

Statistics of Descriptive for Dimensions

Dimensions	Mean	Std. Dev	Dimensions	Mean	Std. Dev
Quality Performance	3.19	.80	Process Management	3.87	.82
Leadership Commitment and Spurt to Quality	3.68	.62	Supplier quality management	3.99	.68
Quality Strategic Planning	3.90	.74	Customer Focus	3.72	.85
Training and Participation	4.41	.56	Continuous Improvement	3.80	.59
Information and Data	3.82	.65			

4.3 Confirmatory Factor Analyses

4.3.1 Quality Performance

The CFA showed on Quality Performance displays the (Kaiser-Meyer-Okin) value of .83, exceeding the recommended value of above .60 (Pallant, 2004) and the (Barlett's test of sphericity) was highly significant ($p = .00$), supporting the factorability of the correlation matrix this factor accounted for 84.06 percent of the total variance in items. As shown in Table 4.3, the loading factors are between .90 and .72. The Cronbach's Alpha for this factor is .93, which indicates high reliability. Correlations from item to total revealed that removing any component would not increase from alpha beyond 0.88, thus supporting the inclusion of all measurement elements in this study.

Table 2**Factor Analysis on Quality Performance**

Quality Performance	Component	Quality Performance	Component
Customer Satisfaction	0.87	Product	0.90
Service Quality and Process	0.72	Reliability	0.88
Service Quality of Employee	0.86	Eigenvalue	34.85
Supplier Performance	0.85	Percentage of Variance	84.05
Employee Satisfaction	0.77	KMO	0.83

4.3.2 TQM Dimensions

The CFA showed on TQM Variables displays the KMO value of .82, exceeding the recommended value of .50 (Hair et al., 1998) and the (Barlett's test of sphericity) was highly significant ($p = .00$), supporting the factorability of the correlation matrix. This factor captured 75.09 percent of the total variance in the items. As shown in Table 3, FA between .90 and .78. The reliability (Cronbach's Alpha) for this factor is 0.86, indicating high reliability. Correlations from item to total revealed that removing any component would not increase from alpha beyond 0.86, thus supporting the inclusion of all measurement elements in this study.

Table 3**Factor Analysis on Quality Performance**

TQM Variables	1	2	3	4	5	6	7	8
Leadership Commitment and Spurt to Quality								
LCS1	0.64							
LCS2	0.72							
LCS3	0.75							
LCS4	0.77							
LCS5	0.71							
Quality Strategic Planning								
QSP1		0.83						
QSP2		0.81						
QSP3		0.73						
QSP4		0.79						
QSP5		0.78						
QSP6		0.7						
Employees Training and Participation								
ETP1			0.88					
ETP2			0.91					
ETP3			0.86					
ETP4			0.7					
ETP5			0.72					
ETP6			0.78					
Information and Data								
ID1				0.92				
ID2				0.91				
ID3				0.86				
ID4				0.84				
ID5				0.78				
Process Management								
PM1					0.77			
PM2					0.76			
PM3					0.74			
PM4					0.68			
Supplier Management								
SM1						0.94		
SM2						0.91		
SM3						0.82		
SM4						0.75		
Customer Focus								
CF1							0.78	
CF2							0.77	
CF3							0.74	
CF4							0.7	
CF5							0.65	
Continuous Improvement								
CI1								0.9
CI2								0.88
CI3								0.84
CI4								0.8
Reliability	0.86	0.88	0.81	0.77	0.78	0.89	0.9	0.86
Initial Eigenvalues	7.58	11.44	42.98	4.58	18.44	4.98	6.54	3.55
Initial Eigenvalues	75.9							
Kaiser-Meyer-Olkin	0.82							

4.4 Multiple Regression Analysis

To examine the relationships between dimensions of TQM and performance from a quality perspective within Jordanian Private Hospitals, the linear-Regression analysis was performed on predicted factors and QP. Table 4 and model summary displays that the relationship between dimensions of TQM and QP is significant ($F = 33.807$; $Sig. = .00$). The R^2 found that

the influencing dimensions of TQM account for 73% of the variation in QP. Of all the dimensions of TQM inclusive in the equation of the regression, only six dimensions appeared as significant predictors of QP. These are Leadership Commitment and Support to Quality, Quality Strategic Planning, Information and Data, Management of Process, Customer Focus, and Continuous Improvement. Therefore, hypotheses H1, H2, H4, H5, H7, and H8 are supported. This leads to the conclusion that Leadership Commitment and Support to Quality, Quality Strategic Planning, Information and Data, Process Management, Customer Focus, and Continuous Improvement are positively related to QP. Process Management and Supplier quality management is found that no significant influence on QP. Based on these results, hypotheses H3, and H6 were rejected

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892a	.796	.728	.33638

Predictors: (Constant), mean_ TQM Variables B Dependent Variable: mean_ QP

Table 4
Multiple Regression Analysis for Factors Influencing QP (N=140)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	275	304		904	.386		
Leadership Commitment and Spurt to Quality	.160	.060	.211	2.682	.009	.521	1.920
Quality Strategic Planning	.396	.094	.434	4.234	.000	.307	3.252
Training and Participation	.047	.098	.045	.481	.000	.371	2.694
Information and Data	.159	.092	.146	1.717	.003	.450	2.222
Process Management	.328	.080	.392	4.091	.324	.352	2.842
Supplier quality management	-.082	.110	-.087	-.749	.456	.238	4.199
Customer Focus	.178	.056	.243	3.167	.002	.549	1.823
Continuous Improvement	.346	.082	.423	3.453	.001	.536	3.732

DV = QP R= .848 (a) R= .73 F= 33.807, Sig=.000. Note: Sig levels:***p<.00; **p<.01; *p<.05

5. Discussions

5.1 Level of Quality performance in Private Jordanian hospitals

This study displayed that the level of TQM perceived by Managers in Jordanian Private Hospitals tends to be high; the mean score is (3.92). This perception indicates that managers have high considerations for TQM in improving customer service quality, and maintaining a good long-term relationship with their patients. This allows hospitals to interact respond and communicate more effectively to significantly improve quality, reduce medical errors and a focus on patients is a crucial practice to the generation of the Quality. The high perception of Managers TQM is consistent with that of Salaheldin et al. (2015) who found that the Jordanian healthcare sector perceives high TQM. Hospitals are increasingly concerned with building and maintaining, creativity and innovation on the overall level of knowledge and understanding of TQM benefits in the Jordanian healthcare sector. Study Al-Shdaifa, (2015) confirmed that private hospitals have implemented more of the principles of TQM when compared with public hospitals. The results of this study showed that 70% of the variance in implementing TQM can be achieved by following the principles of TQM in Jordanian private hospitals.

5.2 Leadership Commitment and Support

The results of the study discovered that Leadership Commitment and Support to Quality is found to be significant to affect the QP in the Jordanian Private Hospitals. This finding indicates that the Hospitals' Leadership is committed and support to the TQM implementation in their hospitals which reflect that they are aware of the important role of leadership in implementing TQM philosophy to improve the quality of the services of the level provided by their hospitals and then enhance QP. Furthermore, leadership acts as the main driver for TQM implementation, creating values, goals, and systems to improve service quality and satisfy customer expectations (Rad, 2006; Prajogo, 2005). However, the study's findings investigation demonstration a clear impact of implementing a TQM philosophy on QP, which is consistent with the earlier, studies such as Talib et al. (2011).

5.3 Quality Strategic planning

Effective strategic quality planning is basic to the success of quality management improvement (Brah et al., 2002). The Quality Strategic Planning dimension focuses on examining how a private hospital develops and implements its quality strategy and goals. Since private hospitals face a variety of uncertainties, managers should consider risks within departments as well as across the organization as a whole. However, there is a lack of empirical research examining the effects of planning strategies on QP (Prajogo, 2005). The results of the study revealed that Quality Strategic planning is found to be significant to affect the QP. This means that Jordanian private hospitals can plane accurately and with high quality. Therefore, it can set its policies

and achieve its goals that support patients and staff, and thus build long-term relationships with patients. Past studies found that a significant link is found between the planning of strategic and QP (Prajogo and Brown, 2004).

5.4 Training and Participation

The hypothesis that Training and Participation focus has a positive effect on QP. Thus, the results in this search support that higher Training and Participation practices lead to a higher level of QP. This indicates that the hospital “management has a clear understanding of the training value, Participation, motivating, and involving employees” in their hospital to improve QP. The results of this study are also in contrast with the findings of other studies. Aburayya et al., (2019) found that a positive between Human resource focus and QP. He confirmed that the main objectives of education and training programs in the service firms are to increase employee’s skills, enhance their commitment toward services provided and patient’s requirements. Sit et al. (2009) resolved that there is a positive impact of HRM on QP concerning TQM. Furthermore, human resource focus is an essential building block of QP.

5.5 Process Management

This study found an insignificant relationship between Process management and QP in Jordanian Private Hospitals. Despite, past studies found that a positive effect on QP in deferent setting (Arumugam et al., 2008). Notably, effective management of processes is essential to ensuring the successful implementation of TQM (Mosadeghrad, 2015). In the Hospitals, a focus on the improvement of processes to reduce medical errors and a focus on patients is a crucial practice to the generation of the Quality (Arumugam et al., 2008). In contrast, the result was supported by the findings of Sit et al. (2009) in which they indicated that there was no effect of process management on QP (patient satisfaction). Other studies found insignificant process management and QP by Aburayya et al. (2019).

5.6 Information and Data

A key ingredient in successfully implementing TQM is the development of an effective performance system. Notably, an effective performance system ensures that information is provided and analyzed clearly and that any misunderstandings are clarified. This research found a significant relationship between Information, Data, and QP. The research also indicates that Jordanian private hospitals must have good information to make quality decisions based on the analysis of real and relevant data in hospitals. And, every department in a private hospital needs a great deal of useful information to make the right decisions and provide a high-quality service. Previous research on TQM practices stresses the critical role of information and data in supporting TQM implementation in the hospital (A’aqoulah, & Kuyini, 2016). Many studies in TQM literature match the current study results such as Talib et al., (2013) and Sit et al. (2009) in which the researchers have shown that information and Data were found to be significant to enhance QP.

5.7 Customer Focus

This research found a positive relationship between Customer Focus and QP in Jordanian Private Hospitals. The focus on the customers is seen as essential for the long-term growth and QP of the overall business. A successful firm recognizes the need to put the customer first in every decision. Lout studies on TQM implementation supported the study findings in which they indicated a positive relationship between customer focus and QP (Sit et al., 2009; Talib et al., 2013). Obtaining and analyzing information about the customer is one of the most frequently used TQM implementation practices. According to Zakuan et al. (2010) analyzing the information collected from customer satisfaction surveys can contribute to improving service quality and increasing customer satisfaction.

5.8 Supplier Quality Management

Refer to encouraging effective and long-term cooperation with fewer reliable suppliers to improve quality (Talib et al., 2013). However, this study revealed an insignificant relationship between supplier quality management and quality performance. In other words, Jordanian private hospitals have not established a long-term relationship with service providers. These search results are consistent with previous research (Arumugam et al., 2008; Talib et al., 2013).

5.9 Continuous Improvement

This study revealed a significant relationship between Continuous Improvement and quality performance in Jordanian private hospitals. This result is consistent with previous research findings by Talib et al. (2013) who revealed a positive Continuous Improvement in quality performance. Continuous improvement is the most important part of hospitals. It’s the search for endless improvements and process development finding new or improved methods in converting inputs into useful quality outputs. It helps reduce process fluctuations and thus continuously improve quality performance in Jordanian private hospitals.

6. Research limitations and future research

This research study contains several limitations that must be taken into consideration to determine potential future research opportunities. Although this research study has implemented a cross-sectional design using a survey questionnaire to collect data, it should be noted that longitudinal research design can be used by other studies to withdraw evidence of causality between factors over time. This research specified only successful factors for the implementation of TQM, so a comprehensive study will be required to identify barriers that affect TQM implementation in the context of Jordanian Private Hospitals. Besides, this study was shown only in the healthcare service sector in Jordan, so it is recommended that future research cover other sectors of service such as education, banking. Moreover, only one major key has been identified to performance in this study, its QP, and therefore it is suggested that future research examine the impact of TQM implementation on performance of other potential performance such as strategy performance. Finally, the data in this study was obtained from managers only using the survey questionnaire as the main tool. Therefore, future research should make data collection less objective using data methods such as observations and interviews with Jordanian Private Hospital managers.

6. Conclusion

The main purpose of this research study, as one of only a few studies, was to evaluate the level of implementing TQM in the accredited in Jordanian Private Hospitals and investigate the relationship between TQM practices and Quality performance as perceived by managers' perspectives. Eight TQM dimensions, namely Leadership Commitment and Support to Quality, Training and Participation, process management, Information and Data, Quality Strategic Planning, and customer focus, Supplier quality management, and Continuous Improvement. The findings provided empirical evidence that the TQM implementation level in the accredited Jordanian Private Hospitals was high. Also and among the six TQM factors identified in this study, the findings revealed that the TQM factors eight TQM dimensions, Leadership Commitment and Support to Quality, Information and Data, Quality Strategic Planning, and customer focus, Supplier quality management, and Continuous Improvement significantly affect QP in the Jordanian Private Hospitals.

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