

TQM in the Saudi Health Care System: A National Cultural Perspective

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Quality is a major concern in Saudi hospitals, as despite the high expenditure by the Saudi government on health care facilities, which amounted to 3.3% of GDP in 2008, the health care system is still suffering from long waiting times, medical errors and deteriorating service. In the few studies tackling TQM applied in Saudi healthcare system, having a foreign workforce was mentioned as one of the major challenges. Nonetheless, the possible effect of the cultural characteristics of the diverse workforce on TQM was not investigated. This study aims to investigate the extent to which national cultural diversity in the workforce creates challenges to successful TQM realization in hospitals in Saudi. This is vital for building up a paradigm to help ensure fuller TQM realization within the health sector in Saudi Arabia. A case study strategy was selected to get more insight about the subject since there is a limited amount of information. The primary data is collected using employee questionnaires and management interviews. The findings of hospital A suggest that the public policy has a positive role in supporting TQM in the hospital and mostly all TQM success factors were present. Cultural diversity was not seen as adding challenges to TQM practices, but instead added different perspectives and benefits from other experiences and attitudes from the diverse cultures. Two further case studies still to be analysed, however, these initial findings suggested that the cultural diversity may bring positive benefits in terms of embedding a TQM culture. The findings may be interesting to managers and policy makers in other industry sectors and in other countries. From a practical point, the findings can support hospitals in further realization of TQM.

Field of Research: Management, Quality Management

1. Introduction

In the Saudi health care sector, quality management has been a strategic consideration and one of the main cornerstones in the continuous development plans in the country since around 2000 as indicated by the Ministry of Planning (MOP) (MOP, 2000) and until the latest development plan in 2010 (MOP, 2010). This reflects a serious commitment to TQM and a long term development strategy to raise the quality of healthcare in Saudi Arabia. Hence, the underlying assumption is that Saudi public policy is encouraging hospitals to adopt TQM practices. However, there is still no clear picture of how effectively hospitals in Saudi apply TQM strategies and associated quality management principles, and the extent of the challenges they may face in doing so.

Despite the developments in Saudi Arabia's health policy, recent studies have suggested the sector faces some serious challenges (see Jannadi, et al. 2008; Albejadi 2010;

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Walston, Alharabi, & Alomar, 2008). For example, there are growing pressures for cost reductions and efficiency improvements in hospitals in Saudi as the population is growing rapidly at 3.6% per year which increases the government health expenditures as health services are provided for free (Walston, Al-Harbi & Al-Omar, 2008). The increase in demand together with the slow pace of building more capacity in hospitals has resulted in long waiting times for some health services (ibid). Indicators suggest that Saudi will need around 25,000 new hospital beds before 2010 and 29,000 by 2012 (ibid). Another operational challenge is the high costs of expensive equipment which Walston et al (2008) argue has increased due to a lack of coordination and efficient use. At the same time as rising cost pressures, there is demand for improved quality as citizens in Saudi Arabia have high expectations of the health system (Almasah, 2011). Also, it is reported that health care employees are demanding more managerial skills that can assist them in providing a better service to patients (Mourshed, 2006). Another important issue is that the healthcare workforce in Saudi is multicultural and consists of many nationalities, cultural backgrounds and languages. The challenges posed by the multicultural nature of the workforce in relation to the Saudi healthcare sector appear to have received little attention in the literature. Although there is literature on attempts to reverse the reliance in the Saudi economy on non-Saudi workers (Ramady, 2010; Al-Asmari, 2008; Aldosary & Masiur, 2005; Al-Asfour & Khan, 2014; Achouia, 2009; Mellahi, 2007; Aldosary, 2004).

The drive for this study is the concern that the national cultural work attitudes in the diverse workforce may bring challenges in relation to TQM realization as required by Saudi public healthcare policy. The question posed is whether the presence of the most critical success factors of TQM and the national cultural features of the diverse workforce working in hospitals may be contradictory, i.e., the latter may not be conducive to the former. In other words, for TQM to succeed, there must be some critical factors present in the organization but their presence can be deterred by some national cultural features of the multicultural workforce (Vecchi & Brennan, 2009; Jung et al., 2008; Lagrosen, 2002, 2003; Krosolid, 1999; Sousa-Poza et al., 2000; Mathews et al., 2001; Gallear & Ghobadian, 2004; Yoo et al., 2005; Anwar & Jabnoun, 2006). Accordingly, the research problem to be explored in this paper is to what extent national cultural diversity adds challenges to the success of TQM realization in Saudi hospitals. It is anticipated that the findings of the research will provide new insights which can be useful to guide hospital managers in Saudi in the application of TQM and policy makers when devising the healthcare policy.

The findings will add a theoretical contribution to the literature as they will be investigating the TQM development in Saudi hospitals empirically using an employee survey questionnaire and management interviews. The results will provide a recent picture of TQM application unlike other studies which do not provide any empirical evidence (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008). Also, the findings will be different as they will present an investigation of the impact of the national cultural diversity on the quality initiatives in Saudi hospitals, something which has not been examined before. Although a few studies have proposed that the foreign workforce is an added challenge to quality initiatives (Albejadi, 2010; Jannadi et al., 2008; Walston et al, 2008; Alahmadi & Roland, 2007), they have not focused on the national cultural diversity aspect and its possible effect. Also, unlike other studies which consider the impact of national culture on quality strategies in different countries (Vecchi & Brennan, 2009; Vecchi & Brennan, 2011; Jung et al., 2008; Lagrosen, 2002, Lagrosen, 2003; Yoo et al., 2005; Sousa-Poza et al., 2000; Mathews et al., 2001; Gallear & Ghobadian, 2004), the findings of this study will present the possible impact of the national sub-cultures in the same country or workforce on quality strategies. Hence, the study is significant in the sense that it can add unique contributions

to the literature of quality management in the developing countries and the possible effect of national cultural aspects on quality strategies. The next section provides an overview of the underpinning literature, before presenting the methodology, the research findings from the preliminary stage of the fieldwork, followed by the conclusions and limitations.

2. Literature Review

2.1 TQM in Saudi Healthcare Sector

Although there are several studies which tackle different aspects of quality such as those concerning patient satisfaction (Alarfaj, 2010; Al Awa et al., 2010; AlKhenizan and Shaw, 2010) and those focusing on TQM related activities (Alomar and Algunaim, 2010; Alahmadi, 2010; Bah et al, 2011), studies on the issue of TQM application as a whole strategy in healthcare seem to be rare (Albejadi, 2010; Jannadi et al., 2008). Also, Saudi studies seem to dwell more on quality as a general concept rather than the specific TQM principles, philosophy and culture (Al-Ahmadi & Roland, 2007; Walston et al, 2008). The only recent TQM studies in Saudi healthcare appear to be those conducted by Albejadi (2010) and Jannadi et al. (2008) who report that the main challenges in the sector are financing of healthcare system, lack of professional workforce and being more dependent on foreign workers, and the lack of a health information system. The reliance on foreign workforce in the Saudi health care system is quoted repeatedly as one of the major challenges to successful quality strategies due to a variety of factors including high staff turnover rates, costs (Albejadi, 2010; Jannadi et al. 2008; Walston et al., 2008) and language barriers (Alahmadi & Roland, 2007). However, past studies did not investigate the effect of the national cultural aspects of the foreign workforce on TQM realization and the extent of challenge they may pose on the application of TQM strategies. Also, most of those studies did not test their results empirically, relying more on a conceptual discussion and personal insight (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008). Hence, this study intends to fill the gap in the literature by investigating the possible influence of the national cultural diversity in the workforce in hospitals on TQM realization. The study will also employ empirical examination of the subject by using a case study approach consisting employees' questionnaires and management interviews.

2.2 TQM Critical Success Factors

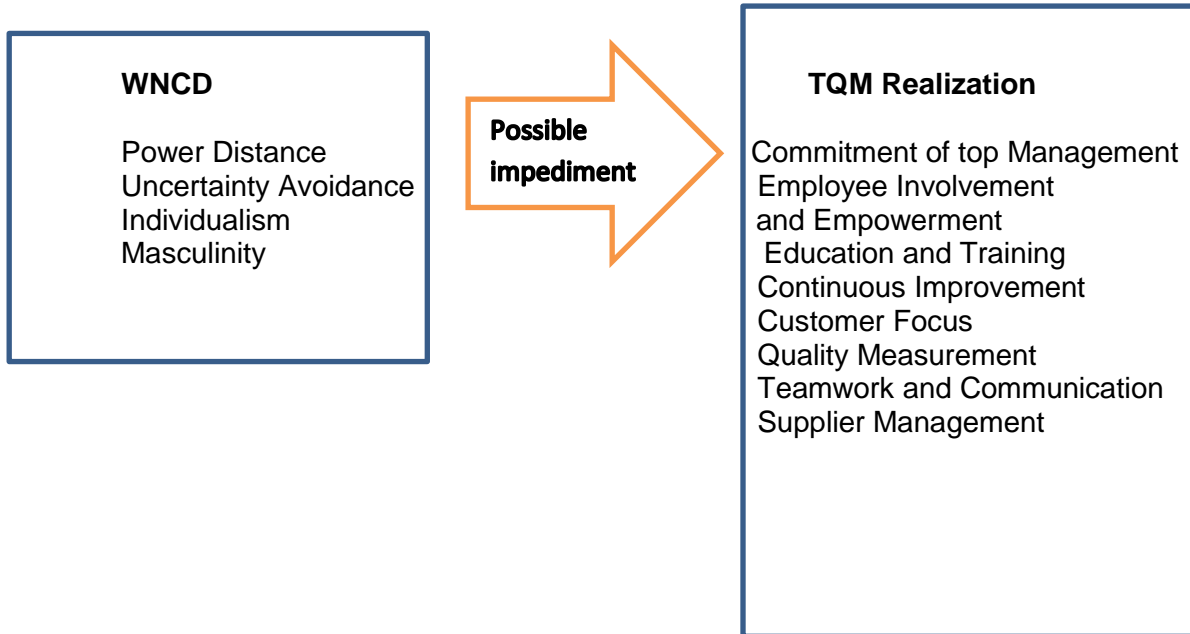
The TQM literature is rich with studies quoting the critical success factors (CSFs) needed for the success of TQM such as customer focus, commitment of top management, employee involvement, employee training and knowledge, quality measurement (Kaplan et al. 2010; Raja et al., 2011; Serafimovska & Ristova, 2011; Mojtahedzadeh & Arumugam, 2011; Talib et al., 2011; Zairi & Alsughayir, 2011; Munhurrun et al. , 2011). The few studies which concern TQM in Saudi healthcare have shown that TQM is still not fully developed in Saudi hospitals and that quality improvement faces some serious challenges (see Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008). However, such studies are not supported empirically. Thus, this study aims to examine the presence of the TQM CSFs in Saudi hospitals as an indicator of the stage of development of TQM strategies by empirical investigation using employees' questionnaires and management interviews employed within a case study design. The initial proposition that can be posed is that the organization culture in Saudi hospitals needs to be developed further in terms of quality as many of the factors critical to successful TQM may not be present due to complexities related to the national cultures of the workforce present in Saudi hospitals.

2.3 TQM and National Culture

The effect of the national culture of the workforce is a key strand in the literature on the success of TQM realization and deployment (Jung et al., 2008; Lagrosen, 2003; Sousa-Poza et al., 2000; Mathews et al., 2001; Gallear & Ghobadian, 2004; Yoo et al., 2005; Anwar & Jabnoun, 2006). Some national cultures are more “conducive” to the development of TQM than others (see Vecchi & Brennan, 2009). Thus, the Saudi multi-cultural workforce provides an interesting context for study. In research studies examining relationship between national culture and TQM, the typology developed by Hofstede et al. (2010) is often applied (e.g. Krosolid, 1999 ; Sousa-Poza et al., 2000 ; Mathews et al., 2001; Lagrosen, 2002; Yoo et al., 2005). Hofstede et al (2010) identifies mainly four national cultural dimensions which form the national cultural context of a country namely: uncertainty avoidance, power distance, individualism/collectivism and masculinity/femininity. Studies suggest that these dimensions of national culture can affect TQM practices at different levels (Jung et al, 2008; Lagrosen, 2002, Lagrosen, 2003; Yoo et al., 2005, Vecchi & Brennan, 2009; Krosolid, 1999; Sousa-Poza et al., 2000; Mathews et al., 2001; Gallear & Ghobadian, 2004; Yoo et al., 2005; Anwar & Jabnoun, 2006). Nonetheless there are insufficient studies which consider how diversity of national sub-cultures within the same country and workforce may impact on levels of engagement with TQM practices, pointing to the need for further research in this area (Tsui et al., 2007; Au, 2000; Vecchi & Brennan, 2009; Vecchi & Brennan, 2011). Hence, this study as it tackles the possible effect of the diverse national cultures comprising the hospital’s workforce within the same country; it can fill the gap in literature concerning such studies. Also, as mentioned before the Saudi reliance on a large foreign work force is proposed to be an impediment to TQM development and quality initiatives due to a variety of factors including high staff turnover rates (Albejadi , 2010; Jannadi et al., 2008; Walston et al., 2008) and language barriers (Alahmadi & Roland, 2007). However, such previous studies have not investigated the effect of the foreign (multinational-cultural) workforce on TQM development and whether it adds challenges or brings opportunities. Hence, this study will be unique in investigating the extent to which diversity in national cultures impact on attitudes to quality management. The initial assumption is that workplace national cultural diversity (WNCD) in Saudi hospitals impedes the successful TQM culture (see figure 1 below). However, due to the lack of literature it is a tentative proposition which need more exploration. In order to explore this proposition, the study will collect data on:

- The presences of TQM CSFs in Saudi hospitals;
- The national cultural traits present in Saudi hospitals;
- Differences in attitudes to CSFs between Saudi and non-Saudi workforce;
- Differences in national cultural traits displayed between the Saudi and non-Saudi workforce.

Fig 1: Preliminary Proposition: Impact of WNCD on TQM Realization



3. The Methodology and Model

The study employs a case study research strategy and multiple case studies of public hospitals in Saudi Arabia will be developed to allow the researcher to compare different management approaches, organisational cultures and workforce national cultural characteristics to uncover differences that might be significant in relation to theory building (Bryman, 2004, Yin, 2009). A case study is useful to study complex relationships between relevant factors in an actual life setting. The study applies literal replication logic in selecting the hospitals studied. Literal replication is used when cases share similar settings and therefore similar results are predicted (Yin, 2009). Such approach suits the present study since there is no reason for the researcher to expect different results between different hospitals as all three public hospitals are within the Riyadh region of Saudi Arabia and should all be implementing TQM in accordance with the Saudi policy. When selecting the cases, there was no insight into any differences in the composition of the nature of the workforces in terms of extent of WNCD.

This paper is based on the results of one of three case studies. In constructing each case study, both quantitative and qualitative data methods for the collection of primary data are used. This triangulation approach is believed to give the study more validity since every method has its advantages and disadvantages and combining both, maximizes the advantages, while minimizing the disadvantages (Bryman 2004; Amaratunga et al., 2002; Leedy & Ormrod, 2001). Both questionnaire instruments and semi structured interview guides are designed to gather the primary data required to construct the case studies.

The questionnaires were developed using a five point Likert scale ranging from 1 to 5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree. The first part of the questionnaire aimed to describe the presence of TQM CSFs in the hospital from the employees' perspective. Thus, 29 statements were developed after careful consideration of the relevant academic literature and journals and the identification of TQM CSFs. The second part of the questionnaire aimed to describe the national cultural

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traits of the diverse workforce. It employed the Hofstede's four main national cultural dimensions (Hofstede, 1980) which are: power distance, uncertainty avoidance, individualism and masculinity to develop 13 statements. The Hofstede dimensions are chosen as they are used frequently as a reference in management studies involving national cultural aspects (e.g. Lagrosen, 2002; Lagrosen, 2003; Yoo et al. , 2005; Flynn & Saladin,2006) and their construct validity have been confirmed by numerous replicated studies (e.g. Pagell et al., 2005 ; Merritt, 2000). However, unlike the Hofstede (1980) research which surveyed more than 100,000 employees from one organization 'IBM' located in more than 50 different countries and was criticized for treating the individual nation as representing one unit of culture (Baskerville, 2003) and its replication studies. The present research will survey employees from one organization 'hospital A' but which are located in the same country 'Saudi Arabia' and thus will consider the different national sub cultures in the individual nation/workforce. The questionnaires were piloted and some questions were reformulated, and were distributed to employees from different grades, educational backgrounds and genders.

The semi structured interviews were designed, piloted, and reformulated before the final versions were distributed. The interviews were conducted with managers from different managerial levels and aimed to assess the role of public policy in TQM strategies, assist in the evaluation of the presence of all the TQM CSFs in the hospital, and to investigate the influence of the national cultural diversity in the workforce on TQM application and to what extent it may add challenges or bring opportunities.

In respect of sampling, hospital A has a capacity of 845 beds and a total workforce of 8401 employees who are nationally diverse comprising 57% Saudis and 43% non-Saudis. For the questionnaires, the minimum sample size needed was 367, which was calculated statistically responding to the population size with 95% confidence level and 5% error level, (Thompson, 2012) which suits the objectives of the study, costs and time constraints. Proportionate stratified sampling according to two strata: Saudis and non-Saudis was used to ensure that the whole population is represented in the sample from both groups, and the minimum size calculated for each strata is 209 Saudis and 158 non-Saudis reflecting their percentages in the hospital. The self-administrated questionnaires were distributed to 500 respondents for self-completion, 285 of whom were Saudi and 215 were non-Saudis. The total number of questionnaires returned was 377 of whom around 63% were Saudis and 37% were non-Saudis as table 1 shows. There were 15 interviews conducted with hospital managers selected purposively, which were likely to have some responsibility for the application of quality strategies in their departments. Managers are selected as they can provide rich information about the subject which may not be possible for all employees. (See table 2 below). The data was collected in hospital A in Saudi Arabia during the period of 2012 to get recent results. The data collected will be used to answer the objectives of the research providing a recent view on TQM development in Saudi healthcare system and the influence of WNCD on TQM.

The questionnaires were analysed using descriptive statistics where the frequency, percentages, and modes of the answers have been calculated using SPSS. Inferential statistics using cross tabulation and Mann–Whitney test were also used to compare the answers of Saudis and non-Saudis regarding the presence of TQM CSFs in the hospital, and their national cultural traits and reveal any statistical significant differences which may give a reason to expect different attitudes. The results were employed to further examine the influence of the diverse national culture of the workforce on the TQM application. The analysis of the interviews began after the process of transcribing. The amount of qualitative

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data was decreased as they were coded and categorised into themes. After that, the data was organised into concepts according the study objectives and displayed in a table with results discussed in the text.

The approach of the study in assessing the impact of national culture on TQM is different to other studies which were mainly based on a quantitative approach and making statistical correlations between TQM CSFs and the national cultural dimensions (Jung et al., 2008; Lagrosen, 2002; Lagrosen, 2003; Yoo et al, 2005, Krosolid, 1999; Sousa-Poza et al., 2000; Mathews et al., 2001; Gallear & Ghobadian, 2004). The present study's approach by using a case study strategy which employs mixed methods (qualitative and quantitative) in the collection of data provides more in-depth understanding suitable to assess sensitive subjects like culture and strength to the results through triangulation. Moreover, the empirical approach of the study using questionnaires and interviews will provide a unique view to the TQM development and challenges in the Saudi healthcare system different to other studies which were based more on a conceptual approach and personal insights (Albejadi, 2010; Jannadi et al. 2008; Walston et al., 2008). The assessment of the impact of the workforce national cultural diversity on TQM realization by employing interviews, and the Hofstede national cultural dimensions which can reflect on the work attitudes and quality initiatives, is a method which has not been used in the past studies of the Saudi healthcare system.

Table 1: Characteristics of Questionnaire Respondents in Hospital A

Characteristics Of Questionnaire Respondents					
Nationality:					
Saudi 63%			Non-Saudi 37%		
Job Classification:					
Clinical Professional 43%	Non-Clinical Professional 28.3%	Senior Management 3.5%	Middle Management 10.2%	Supervisory 9%	Clerical 6%
Affairs:					
Academic & Training Affairs 5.4%	Administrative Affairs 18%	Facility Management 11%	Financial Affairs 4.4%	Nursing Affairs 22.2%	Medical & Clinical Affairs 39%
Education:					
High school 3.5%	Diploma or Equivalent 19 %	Bachelor 53%	Masters/Postgraduate Diploma 18%	Doctorate (PhD) or equivalent 6.5%	

Table 2: Characteristics of Managers' Interviewees in Hospital A

Interview No	Job Title	Department	Length of Service	Education	Nationality	Gender
1.	General Manager	Patient Services	20	Masters	Saudi	Female
2.	General Manager	Pharmacy Services	15	Bachelor	Saudi	Male
3.	Manager	Information Technology	7	Masters	Saudi	Male
4.	General Manager	Training & Development	22	PhD	Saudi	Male
5.	Manger	Nursing Support	17	Bachelor	Non Saudi	Female
6.	Manager	Employment Services	23	Masters	Saudi	Male
7.	Manager	Clinical Engineering	9	Bachelor	Non Saudi	Male
8.	Manager	Social Services	8	Bachelor	Saudi	Female
9.	Manager	Radiology	11	Bachelor	Non Saudi	Male
10.	Manager	Emergency Medicine	13	Masters	Saudi	Male
11.	Manager	Project Management	15	PhD	Saudi	Male
12.	Manager	Dentistry	12	Equivalent of PhD	Saudi	Female
13.	Manager	Medical Records	14	Bachelor	Saudi	Female
14.	Manager	Financial Services	19	Masters	Saudi	Male
15.	Manager	Food Services	8	Bachelor	Saudi	Male

4. Findings

4.1 Public Policy Role in TQM in Hospital A:

The interview results of hospital A revealed that public policies have a positive impact in supporting TQM strategies in the hospital. However, considering that the hospital is advanced in terms of providing a quality culture and quality standards, encouraged by other factors such as attaining patient satisfaction and maintaining the hospital's reputation, that role may not be as significant. The interviews suggested that public policies have affected the direction of the hospital resources by dedicating more of them to facilitate quality programs and strategies in the hospital. In addition, the hospital has been allocated more financial resources compared to other hospitals which allowed more investment in quality related activities. The governmental polices also encouraged opening many universities to fill the shortage in medical staff in hospitals and to develop the quality of service considering the importance of the educational element in the development of quality. They also allowed more sponsorship to postgraduate studies and continuous education programs to develop staff skills and promote the quality of service. Such results conform to previous studies of (Walston et al., 2008; Al Walifi, 1991; MOP, 2010) in that governmental policies in Saudi Arabia are encouraging the delivery of quality culture in the healthcare system.

4.2 TQM CSFs in Hospital A

Questionnaires were used to investigate 8 of the CSFs where 29 Likert statements divided into 8 categories were employed. As table 3 below shows, mostly all TQM critical success factors are perceived to be present by the majority of respondents, as the most common answer in all 8 of the CSFs is agree/strongly agree with responses ranging from 68% (EIE) to 92% (CI) either agreeing or strongly agreeing that the quality feature was present. Five factors scored very high with over 80% either agreeing or strongly agreeing. Consensus was slightly lower in relation to employment involvement and empowerment (EIE), quality measurement (QM) and communication and teamwork (CT). The ninth CSF "supplier management" was investigated only by interviews. The interviewees indicated that suppliers must adhere to certain standards to be able to qualify for contracts and be retained as suppliers for the hospital, nonetheless their integration to quality strategies in the hospital is inconclusive and therefore, it is not clear whether suppliers are included in quality strategies in the hospital. Such results contradict with the initial proposition that hospitals in Saudi do not provide a well-developed culture of quality where TQM CSFs are present and where TQM strategies can flourish (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008, Alahmadi & Roland, 2007). Thus, the results add a new and recent perspective to the application of TQM in hospitals in Saudi Arabia, and add to the knowledge of TQM in the developing countries.

Table 3: Summary of TQM CSFs Presence

The CSF	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mode	Range
1. Commitment of Top Management (CTM)	12 1.1%	42 3.7%	62 5.5%	736 65.2%	277 24.5%	4	4
2. Employee Involvement and Empowerment (EIE)	55 2.9%	436 23.2%	108 5.8%	1033 55.0%	246 13.1%	4	4
3. Employee Education and Training (ET)	18 2.4%	78 10.4%	17 2.3%	504 66.9%	136 18.1%	4	4
4. Continuous Improvement (CI)	2 .3%	16 2.1%	44 5.8%	513 68.1%	178 23.6%	4	4
5. Quality Measurement (QM)	13 .9%	137 9.2%	188 12.6 %	933 62.7%	218 14.6%	4	4
6. Organization Culture (OC)	17 .9%	126 6.7%	129 6.9%	1298 69.2%	305 16.3%	4	4
7. Customer Focus (CF)	14 1.2%	97 8.6%	86 7.6%	822 73.0%	107 9.5%	4	4
8. Internal Collaboration (Teamwork and Communication) (TC)	21 1.1%	208 11.1%	209 11.1 %	1180 62.9%	257 13.7%	4	4

4.3 National Cultural Traits in Hospital A

Workforce national cultural features were measured by 13 Likert statements developed to investigate the four Hofstede cultural features. The initial findings of the case study reveal that the Hospital A scored low in power distance (PD), low in uncertainty avoidance (UA), balanced levels leaning to the high in individualism (IN) and evenly balanced levels leaning to the low in masculinity (MA) (See table 4 below). This mix of national cultural features/traits of the workforce in the hospital does not match the Hofstede index for the national cultural features regards the Saudi national culture which is indicated that it is high in PD, high in UA, high in MA, and low in IN (Hofstede, 2001). When comparing the two it can be said that the national cultural features of the hospital workforce are more conducive to TQM than the Saudi culture stereotype, as apart from the high IN, the levels of the other three features (low PD, low UA, low MA) match what was argued to be conducive to TQM

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(Saha & Hardie 2005; Harnesk & Abrahamsson, 2007; Jabnoun & Khafaji, 2005; Shokshok et al., 2010).

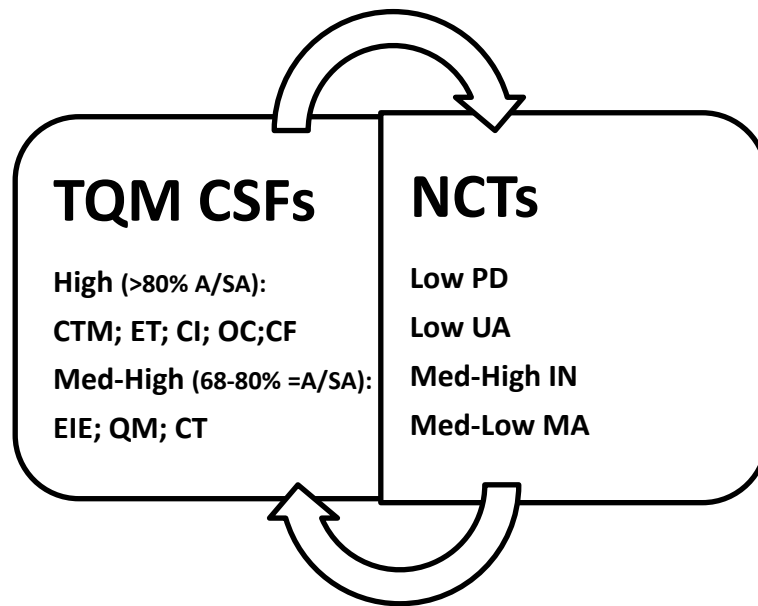
Table 4: Summary of Workforce National Cultural Features

National Cultural Feature	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Mode	Range
Power Distance (PD)	99 8.8%	623 55.4%	114 10.1%	247 22.0%	42 3.7%	2	4
Uncertainty Avoidance (UA)	83 7.4%	600 53.2%	85 7.5%	319 28.3%	41 3.6%	2	4
Individualism (IN)	53 4.7%	346 30.7%	102 9.1%	524 46.5%	101 9.0%	4	4
Masculinity (MA)	198 13.2%	531 35.4%	149 9.9%	509 33.9%	113 7.5%	2	4

4.4 Workforce National Cultural Diversity (WNCD) Influence on TQM Realization

The interviews revealed that managers did not regard WNCD as adding challenges to TQM realization. Instead, WNCD was viewed as having a positive impact in terms of bringing different perspectives, experiences, and attitudes especially those experiences coming from Europe and US. Also, the interviews revealed that generally most of the work attitudes related to the national cultural traits of the foreign workforce in the hospital such as preferring to work cooperatively and as a group facilitate and support the application TQM strategies. However, some minor difficulties were reported to be posed by some foreign workers showing more obedience to their managers without expressing themselves, fearing there would be negative impact on their evaluations if they were more outspoken. As indicated earlier, TQM is realized in hospital A, as nearly all TQM CSF are present. Considering that nearly all the levels of the national cultural features/traits (NCTs) are conducive to TQM, one interpretation is that there may be a positive association between the TQM realization and the WNCD in the hospital. However, as Figure 2 below shows although there may be a positive relationship between the presence of TQM CSFs and WNCD, it is difficult to say whether WNCD helps with the embedding of TQM or if the TQM culture has influenced the national cultural traits (NCTs) found to be prevalent in the diverse workforce.

Fig 2: Association between TQM CSFs & NCTs



Further analysis of the survey results was undertaken to investigate any statistical significant differences between the Saudi and non-Saudi workforce in relation to their views regarding the TQM CSFs presence and their preferences in relation to work attitudes reflecting their national traits using cross tabulation and Mann Whitney test. For this case study, in respect of TQM realization, no statistical significant difference was found in the views of Saudis and non-Saudis towards the presence of TQM CSF in the hospital except in regards to OC. However, such difference may not be of importance since the most common answer in overall and for Saudis and non-Saudis is agree. In respect of the national cultural features/traits, the results show that there is a statistical significant difference between Saudis and non-Saudis with regards PD and IN where Saudis scored lower than non-Saudis. For PD, the difference may not be of importance since the overall PD is still low which is still conducive to TQM (Jabnoun & Khafaji, 2005; Shokshok et al., 2010), and it is low in both categories of Saudis and non-Saudis. For IN, the overall level is high which is not conducive to TQM, but Saudis scored lower levels than non-Saudis which may suggest a possible negative effect from non-Saudis on TQM which may be ameliorated by the WNCD.

Table 5: Difference between Saudis /Non Saudis in TQM CSF Presence

Null Hypothesis: The Distribution of TQM CSF is the Same Across Categories of Nationality	Sig	Decision
1. CTM	0.500	Retain the null hypothesis
2. EIE	0.920	Retain the null hypothesis
3. ET	0.468	Retain the null hypothesis
4. CI	0.424	Retain the null hypothesis
5. QM	0.598	Retain the null hypothesis
6. OC	0.000	Reject the null hypothesis
7. CF	0.331	Retain the null hypothesis
8. TC	0.60	Retain the null hypothesis

Table 6: Difference between Saudis /Non Saudis in National Cultural Traits

Null Hypothesis : The Distribution Of NCTs Is The Same Across Categories Of Nationality	Sig	Decision
1. PD	0.008	Reject the null hypothesis
2. UA	0.377	Retain the null hypothesis
3. IN	0.006	Reject the null hypothesis
4. MA	0.935	Retain the null hypothesis

Based on the above, it can be seen that the results of this case study does not conform with the main initial proposition that WNCD adds challenges to TQM realization in the hospital. Instead it was seen as providing a different perspective and enriching the hospital with experiences from various cultures, despite some differences in the work attitudes related to the NCTs between Saudis and non-Saudis. The results do not support the previous studies (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008; Alahmadi & Roland, 2007) which posed foreign workforce to be adding challenges to the TQM development and quality initiatives in the Saudi healthcare system due to factors like language barriers and high staff turnover rates. Thus, the results provide a new view of TQM in hospitals in Saudi Arabia and contribute to the literature of quality management in general and in health care in specific.

5. Summary and Conclusions

The overall initial findings from first case study suggest that public policy is having a positive role in supporting TQM in the hospital confirming with the studies of (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008) which argue that governmental public policies are encouraging the quality initiatives in the healthcare system in Saudi Arabia. Also, the overall findings reveal that TQM, as measured by the presence of the CSFs, is firmly embedded in the hospital contradicting with the studies of (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008, Alahmadi & Roland, 2007) which argued that Saudi healthcare system does not provide a well-developed quality culture where TQM strategies and other quality initiatives can flourish. The NCTs of the workforce in the hospital does not match the Saudi cultural stereotype proposed by the Hofstede model (Hofstede, 2001), and it is more conducive to the TQM culture with low PD, low UA, balanced-low MA, and balanced- high IN. Negligible differences were found between the Saudi and non-Saudi workforce views of CSFs. However differences between the Saudi and non-Saudi workforce were found in relation to two traits: power distance and individualism. Overall, WNCD is not perceived to add challenges to TQM realization and, in fact, may be conducive to ameliorating any possible negative impact caused by national cultural traits present in the non-Saudi workforce. The WNCD was viewed as adding a new perspectives and experiences to the application of quality strategies in the hospital, opening up employees' minds to other cultures, quality initiatives and quality experiences, and reducing their resistance to change, and thus facilitating a smoother TQM application. That contends the studies of (Albejadi, 2010; Jannadi et al., 2008; Walston et al., 2008, Alahmadi & Roland, 2007) which posed the foreign work force in Saudi healthcare system as adding challenges to the quality initiatives and strategies. Hence, the results of the present study add a new and recent view to the application of TQM and quality strategies in Saudi hospitals reflecting positively on the knowledge of quality management in the Middle East

and the developing countries. For the limitations of the study, the direction of causation is impossible to determine whether TQM management policies and culture helped to change the national cultural dynamics or whether national cultural diversity made TQM application smoother. Qualitative discussion with different cultural groups within the workforce would be required to dig deeper into differences. Two further hospital case studies are under analysis which will further illuminate the role of WNCD in relation to TQM. The findings may be interesting to managers and policy makers in other industry sectors and in other countries who experience WNCD. From a practical point, the findings can support hospitals in further realization of TQM by pointing to the positive role of WNCD.

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