

Assessment of Dominant Organisational Cultures Role in Health Care Provision in Riyadh, Saudi Arabia

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Abstract: The aim of this study is to understand the role of the four organisational culture types in delivery of health care in Saudi Arabia. An analytical assessment was done to figure the currently dominant ones. The study began on 1 January 2008 and continued until 30 March 2008. A sample of professional hospital employees from seven health care providers in the Riyadh City was selected. Quantitative methods were employed to collect data from participants using questionnaires, using elements of the Organisational Cultural Assessment Instrument (OCAI), based on the Competing Values Framework (CVF). Only hospital affiliation personal characteristic had a statistically significant difference related to types of organisational culture. According to the value of the significance level (Sig. 1-Tailed), the clan, adhocracy, market and hierarchy cultures all received high scores, but hierarchy was more prevalent than the others. The chi-square test showed that there were significant differences among participants in their agreement responses, regarding the current organisational culture types under the overall dimensions. The paired-sample t-test revealed a statistically significant difference between the four organisational culture types, excepting between clan - adhocracy cultures and clan - market cultures. Accordingly, from the result of the tests, prevalence of a hierarchy was highest, whereas the least prevalent was adhocracy. Only hospital affiliation personal characteristic was correlated to a significant difference in the views of participants regarding the types of organisational culture in hospitals of Riyadh. The clan, adhocracy, market and hierarchy cultures all received high scores, however hierarchy was the most prevalent, dominant organizational culture than the others, followed by the market, clan and adhocracy types in that order.

Key words: Hierarchy • Organisational Culture • Health • Riyadh

INTRODUCTION

Saudi Arabia is one of the few countries that had witnessed acceleration of economic development in a short period of time beginning in the 20th century. Since the discovery of oil in the early 1900s, the country has exploited this resource, attracting the modern technologies of the world in favour of its economic, social and cultural advancement. This vast development has enabled the country's citizens to reap the fruits of modern civilization, including improved governmental and health services, with the result that today Saudi Arabia can boast of many developed clinics and hospitals with ongoing modernization of health care delivery systems that are scattered all over the country [1].

The Saudi government tries as much as it can to cope with worldwide changes and to improve the workplace

environment and health care services. Despite these efforts, however, problems persist with health care management [2]. The management literature indicates that culture plays an important role in determining the success of an organisation. Understanding the management of culture should be the key element in any attempt to initiate and manage organisational change [3-6]. A primary cause of the problems associated with health care provision in Saudi Arabia today is that it is heavily influenced by the prevailing organisational culture within the country.

This study is designed to investigate the role of dominant organisational cultures and to assess the health care provision in selected hospitals of Riyadh to represent Saudi Arabia. An analytical study will reflect an evaluation of those types most prevalent.

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MATERIALS AND METHODS

The environmental factors (Geography, population and history, political, economic and social culture) affecting health care provision in Saudi Arabia are surveyed and need to be analysed, to clarify the complexity of organisations. In addition, secondary data of health care providers is collected from available media. They were used to verify and interpret primary data obtained from questionnaires [7]. Primary data is collected in a field study, using the selected questionnaire that employs the Competing Values Framework (CVF). The respondents are employees in hospitals of Riyadh. CVF is to examine the role of organisational culture in health care provision through employing the elements of the Organisational Cultural Assessment Instrument (OCAI). The framework models of organisational culture that will be studied are four (Hierarchy, market, clan and adhocracy culture) and the essential dimensions of culture are six (Dominant characteristics, organisational leadership, management of employees, organisation glue, strategic emphases and criteria of success).

Research Design: The organisational culture is assessed by performing the quantitative approach objective nature that concentrated on measuring phenomena, by collecting and analysing numerical data and applying statistical tests [8]. Quantitative tools (Questionnaires and surveys) are used to give in-depth knowledge about the culture of organisation [3, 9].

The Tools

Questionnaire: The questionnaire type, which was already defined by authors [10], is descriptive and explanatory of the opinions, attitudes and organisational practices. The present study is mainly concerned with the assessment of organisational culture with respect to the overall dimensions.

Duration: This is a cross-sectional gathered study whose data will be from hospitals in Riyadh during a three-month period, to explore the role of organisational culture in the system of health care provision as an established phenomenon. All questionnaires will be delivered to the participants by hand. The total sample size expected was set at 395, but to fulfil this, 760 questionnaires will be distributed with a covering letter to ensure a high level of response.

Quantitative Data: The target population of this study included physicians, nurses, technicians and administrative workers (Male and female, Saudis and

non-Saudis) working in provision of health care in Riyadh, in public hospitals with 500 beds and above. The seven main health care providers (National guard, Royal Bureau, Ministry of defence, Ministry of Health, Ministry of higher education, Ministry of interior, Private sector) in Riyadh city and professional group personnel (Physician, Nurse, Technician, Administrative).

The sample was selected from amongst the employees of health care providers in Riyadh hospitals that represented each of the main health care providers: the Ministry of Health, Ministry of Defence, Ministry of the Interior, Ministry of Higher Education, National Guard, Royal Bureau and the private sector. The selected hospitals were: King Abdulaziz Medical City for National Guard, King Faisal Specialist Hospital and Research Centre, Prince Sultan Military Medical City, King Fahad Medical City, King Khaled University Hospital and Security Forces Hospital, respectively.

Selection Criteria: Hospitals should have at least 500 beds, with the exception of the private sector hospitals that had 200 beds or more, as there are no private hospitals having 500 beds. Second, questionnaires will be issued to the selected hospitals according to the proportional distribution method employed. Third, they will also be given to the professional groups according to their proportion in each hospital. Fourth, random selection of the number required in each professional group from each hospital is settled.

Ethical Issues: Permission will be obtained to carry out this study from the hospitals in Riyadh where the study will be conducted. Necessary steps will be taken to protect participants from any potential harmful effects by obtaining their agreement to participate and guaranteeing to preserve their confidentiality.

Statistical Analysis: The independent-samples t-test was used to show a statistically significant difference (At the 0.05 significance level and less) in the views of participants, regarding the types of organisational culture in hospitals in Riyadh at present. One-way ANOVA was used to show a statistically significant difference (At the 0.05 significance level and less), if participants' personal characteristics and functions consisted of more than two dimensions. One-sample t-test was used to assess the average degree of agreement to the overall dimensions. The chi-square test was used to verify the existence of significant differences between response items at the significance level of $\alpha = 0.05$. SPSS program was used to analyse the questionnaire responses.

Table 1: Distribution of study sample by hospital affiliation

Hospital	Number (frequency)	Percentage of sample
King Abdulaziz Medical City for National Guard	57	13.5%
King Faisal Specialist Hospital and Research Centre	58	13.8%
Prince Sultan Military Medical City	61	14.6%
Riyadh Medical Complex, King Fahad Medical City (MOH)	112	26.7%
King Khaled University Hospital	34	8.1%
Security Forces Hospital	34	8.1%
Dallah Hospital Al Hammadi Hospital	63	15.1%
Saudi German Hospital Riyadh		
Total	419	100%

RESULTS

The fieldwork was started on the first of January 2008 and continued until 30 March 2008. Of the 760 questionnaires distributed, 579 (76%) were returned; of these, 160 (21%) were excluded because the respondents had answered only some of the questions and left the rest blank, or had repeated the same answers to all the questions. Only 419 valid completed questionnaires were received, with a response rate of 55.

The response rate of valid completed questionnaires received from each hospital ranged from 41% to 70%. The sites with the lowest rates of questionnaire return (Approximately 41%) were King Khaled University Hospital and the Security Forces Hospital, while those with the highest rates (Approximately 70%) were the MOH hospitals.

Hospital Affiliation: Table 1 shows that the provider represented by most respondents in the study sample was the Ministry of Health, which employed 26.7% of the total study population, followed by the category of private sector hospitals (15.1%), the Prince Sultan Military Medical City (14.6%), the King Faisal Specialist Hospital and Research Centre (13.8%), the King Abdulaziz Medical City for the National Guard (13.5%), the King Khaled University Hospital (8.1%) and the Security Forces Hospital (also 8.1%).

Demographic Data: The distribution of the study sample according to relevant demographic variables was as follows.

Gender: Those responding to the question regarding gender, 60% were male and 40% female.

Table 2: Demographic Analysis

Variable	Number (frequency)	Percentage of group
Gender		
Male	243	60.0%
Female	162	40. %
Total	405*	100%
Age groups		
30 years or less	143	34.8%
31–40 years	161	39.2%
41 years or more	107	26.0%
Total	411	100%
Nationality		
Saudis	239	57.6%
Non Saudis	176	42.4%
Total	415	100%
Educational level		
High school	20	5.0%
Diploma	92	22.9%
Bachelor	214	53.4%
Master	34	8.5%
PhD	41	10.2%
Total	401	100%
Professional groups		
Physicians	67	16.0%
Nurses	127	30.3%
Technicians	95	22.7%
Administrative	130	31.0%
Total	419	100.0%
Work experience in current position		
5 years or less	219	53.8%
6 –10 years	96	23.1%
11–20 years	73	17.6%
21 years or more	27	6.5%
Total	415	100.0%
Monthly income (Saudi riyals)		
Less than 5000	133	32.4%
5000–9999	118	28.8%
10000–14999	82	20.0%
15000–19999	38	9.3%
20000 and above	39	9.5%
Total	410	100.0%

*Gender. Note that the total was not 419 because 14 respondents did not answer this question.

* Nationality. Note that the total was not 419 because 4 respondents did not answer this question.

* Educational level. Note that the total was not 419 because 18 respondents did not answer this question.

*Work experience in current position. Note that the total was not 419 because 4 respondents did not answer this question.

*Monthly income. Note that the total was not 419 because 9 respondents did not answer this question.

Table 2 illustrates the distribution of the study sample according to demographic data. There were more Saudi than non-Saudi employees, while administrative employees represented the largest proportion of professional groups in these hospitals. It shows analysis of data of all the following demographic variables.

Age: According to Table2, the age group represented by most respondents in the study sample was 31–40 years, which represented 39.2% of the total study population, followed by 30 years or less (34.8%) and 41 years or more (26.0%).

Nationality: Those responding to the question regarding nationality, 57.6% were Saudis and 42.4% non-Saudis.

Educational Level: The levels of education attained by most respondents in the study sample were that of the bachelor degree, held by 53.4% of the total study population, followed by diploma (22.9%), PhD (10.2%), master (8.5%) and high school (5.0%).

Professional Groups: The professional groups represented by most respondents in the study sample were administrative, which represented 31% of the total study population, followed by nurses (30.3%), technicians (22.7%) and physicians (16%).

Work Experience in Current Position: The work experience in their current position of most respondents in the study sample was 5 years or less, which

represented 53.8% of the total study population, followed by 6–10 years (23.1%), 11–20 years (17.6%) and 21 years or more (6.5%).

Monthly Income: The monthly income of most respondents in the study sample was less than 5000 Saudi riyals, this group representing 32.4% of the total study population, followed by those earning 5000–9999 riyals (28.8%), 10000–14999 riyals (20.0%), 20000 and above (9.5%) and 15000–19999 riyals (9.3%).

Relationship Between Health Service Employees’ Personal Characteristics and Organisational Cultures: Statistical tests revealed only the ‘hospital affiliation’ personal characteristic was correlated to a significant difference in the views of participants regarding the types of organisational culture in hospitals of Riyadh. The remaining characteristics, which showed no statistically significant difference in the views of participants regarding organisational culture, were gender, age, educational level, professional group, experience in their current position and monthly income.

The following results are illustrated by Table 3. There is a statistically significant difference in all types of organisational culture in terms of hospital affiliation of

Table 3: One-way ANOVA (F) and Scheffe test for differences in current organisational culture, by hospital affiliation

Types of organizational culture	Hospital affiliation	Mean	F test	P-value	Scheffe test
Clan culture	1) King Abdulaziz Medical City For National Guard	3.3029	6.312	*0.000	(3) less than (1), (2), (4), (7)
	2) King Faisal Specialist Hospital and Research Centre	3.5172			
	3) Prince Sultan Military Medical City	2.7240			
	4) Hospitals of Ministry of Health	3.3429			
	5) King Khaled University Hospital	3.1618			
	6) Security Forces Hospital	3.3235			
	7) Hospitals of private sector	3.5079			
Adhocracy culture	1) King Abdulaziz Medical City For National Guard	3.3053	10.797	*0.000	(3) less than (1), (2), (4), (6), (7)
	2) King Faisal Specialist Hospital and Research Centre	3.5833			
	3) Prince Sultan Military Medical City	2.6434			
	4) Hospitals of Ministry of Health	3.2932			
	5) King Khaled University Hospital	3.0539			
	6) Security Forces Hospital	3.2059			
	7) Hospitals of private sector	3.5122			
Market culture	1) King Abdulaziz Medical City For National Guard	3.4684	9.982	*0.00	(3) less than (1), (2), (4), (6), (7)
	2) King Faisal Specialist Hospital and Research Centre	3.6264			
	3) Prince Sultan Military Medical City	2.6732			
	4) Hospitals of Ministry of Health	3.3249			
	5) King Khaled University Hospital	3.1118			
	6) Security Forces Hospital	3.3225			
	7) Hospitals of private sector	3.5026			
Hierarchy culture	1) King Abdulaziz Medical City For National Guard	3.5012	8.378	*0.000	(3) less than (1), (2), (4), (6), (7)
	2) King Faisal Specialist Hospital and Research Centre	3.7195			
	3) Prince Sultan Military Medical City	2.7948			
	4) Hospitals of Ministry of Health	3.4012			
	5) King Khaled University Hospital	3.3431			
	6) Security Forces Hospital	3.4902			
	7) Hospitals of private sector	3.5778			

* D. significant at the 0.05 level.

Table 4: One-tailed t-test results by current type of organisational culture

Current type of organisational culture	Mean	Standard deviation	One-tailed t-test	
			T-test of the difference between the average and value of 3	Sig. 1-tailed
Clan	3.2800	.86626	6.617	*0.000
Adhocracy	3.2468	.78466	6.439	*0.000
Market	3.3005	.81962	7.505	*0.000
Hierarchy	3.3996	.82884	9.870	*0.000

*D. statistically at the level of significance (0.05)

Table 5: Dominant types of organisational culture in the current situation and chi-square result

Types of organisational culture		Degree of agreement in current situation				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Clan	F	188	409	714	897	299
Adhocracy	F	186	408	762	906	248
Market	F	162	397	740	931	276
Hierarchy	F	180	326	670	966	359

* Chi-square = 46.7659

* P = 0.000

Table 6: Paired-sample t-test result for the differences between types of organisational culture

Types of organisational culture	Mean difference between the two types of culture	Paired-samples t-test		
		T-test of the difference	Sig. 2-tailed	Test result
Clan and adhocracy	.033	1.397	.163	C = A
Clan and market	-.020	-.801	.424	C = M
Clan and hierarchy	-.119	-5.22	*0.00	C < H
Adhocracy and market	-.053	-2.59	*0.010	A < M
Adhocracy and hierarchy	-.152	-6.40	*0.000	A < H
Market and hierarchy	-.099	-4.17	*0.000	M < H

*D. significant at the 0.05 level

participants in the current situation (The p-value is less than the statistical significance level that was specified in advance by the researcher, which here is $\alpha = 0.05$). It is clear that the four types of organisational culture, according to the views of participants who worked in the PSMHC, were significantly lower than for participants working in other hospitals.

As illustrated in Table 4, based on the result of the t-test of the difference between the sample average degree of agreement and the value of 3 and on the value of the significance level (Sig. 1-tailed), the clan, adhocracy, market and hierarchy cultures all received high scores, but hierarchy was more prevalent than the others.

The study also used the chi-square test to verify the existence of significant differences between response items at the significance level of $\alpha = 0.05$.

A paired-sample t-test was also conducted to identify any significant differences between all types of organisational cultures for the overall dimensions in the current situation and to determine which of these types was more prevalent than the others.

Table 5 indicates that there were significant differences among participants in the degree of response agreement (Strongly disagree, disagree, neutral, agree, strongly agree) regarding the current situation of each type of organisational culture under the overall dimensions.

As illustrated in Table 6, the paired-sample T-test revealed a statistically significant difference between the four types of organisational culture, except between clan and adhocracy cultures and between clan and market cultures at the significance level of $\alpha = 0.05$. Accordingly, from the result of the tests, it is possible to identify a slightly stronger prevalence of a hierarchy culture, whereas the least prevalent was adhocracy.

DISCUSSION

The results of the CVF questionnaire reveal that there is a balance among the four types of culture in the current situation with reasonably high scores on all four dimensions. The results are consistent with previous

studies such as Oney-Yazici *et al.* [11] who assessed the organisational culture in Turkish firms. In their research they found there were similarities between the clusters which represented the four types of organisational culture. Moreover, Nelson [12] researched the part played by managers and political leaders in determining how well local authority organisations performed in the North West of England. He mapped the cultures of three authorities and discovered that two of the local authorities displayed very similar cultural profiles which point towards a 'balanced' perception from staff with fairly high scores on all four dimensions. However, the results of the questionnaire reveal that in health care provision in Saudi Arabia a hierarchy culture was slightly more prevalent than other types in the current situation. This is followed by market, clan and adhocracy types in that order.

Hierarchy Culture: The findings of quantitative data of this study reveal that in health care provision in Saudi Arabia a hierarchy culture was slightly more prevalent than other types in the current situation. Hierarchy culture here focuses more on internal than external issues and values stability and control over flexibility and discretion. These hospitals are characterised by a high level of bureaucracy and are driven by rules, regulations and a hierarchical type of management. These showed that almost two-thirds of participants commented that the currently dominant type of organisational culture in their hospital was hierarchical. It was stated that the hospital directors would exert as much control as they could and try to interfere in everything. Moreover, they complained that the existence of a hierarchical culture resulted in long procedural delays in passing information to hospital directors in order for them to make final decisions.

The prevalence of hierarchy culture in Saudi health is not surprising since it is common knowledge that public organisations like those in this study have a strong tendency to be hierarchal in configuration. In the literature, Mintzberg [13] argues that "public machine bureaucracies" are suggested as a subgroup within "machine bureaucracies" because external limitations result in public agencies being predisposed towards a higher level of bureaucratisation. In addition, Banfield [14] outlined certain qualities of government agencies. Firstly they have increased partitioning of authority and "selling" output below production cost is less of a priority. Secondly, there are higher levels of vagueness, multiplicity and conflict between objectives and products. External laws and administrative procedures need to be more closely adhered to and finally, dependence on

financial rewards needs to be reduced. More is therefore spent on reducing corruption than is gained from it and strong central control is less effective in reducing corruption. Downs [15] stressed that when the economic market is not part of the equation there are more likely to be complex hierarchies in public bureaucracy. Internal decisions are more likely to be influenced by politics. Furthermore, studies which have employed the CVF and focus on public organisations have concluded that hierarchy culture is dominant in public organisations [3, 16, 17]. In line with the nature of this study which focuses on health care organisation, Gerowitz *et al.* [18] have concluded that the NHS in the UK as a whole is characterised by a higher frequency of dominant hierarchical culture. These findings appear to concur with those of a number of previous studies which identified that bureaucracy in developing countries in general and in the Arab world in particular, are identified with problems of the centralisation of power and control [19, 20].

Public management in Saudi Arabia is operating with characteristics of a high power distance and high uncertainty avoidance culture. These types of characteristics are associated with a hierarchy culture. Van Muijen and Koopman [21] argue that in countries where the power distance index and uncertainty avoidance index are high, we are likely to find a preference for a hierarchy model which represents a centralized bureaucracy with a high rationalized and standardized work flow and formal procedures.

The findings of this study revealed that the prevalence of hierarchy culture in Saudi hospitals appear to differ from Gerowitz *et al.* [18] study which concluded that the health care services in the US were characterized by adhocracy and market cultures over clan and hierarchical cultures. This could be attributed to the political and economic environments in which the health care in both countries function. In Saudi, the health care system is under the control of the government, while the US the health care system operates through private health insurance which allows organizations to free themselves from bureaucracy and hierarchies.

The researcher believes that the prevalence of hierarchy culture may be attributed to the political system in Saudi Arabia, which is a monarchy, meaning that it is strongly centralized. This is reflected in the Saudi management style, which is centralized, with a strong organizational culture rooted within a regional culture that is based in turn on tradition, religious values and community, supported by the social culture. Alternatively,

it may be attributed to Saudi culture, which teaches people from early childhood to respect and obey their elders. These values motivate them to show respect to their superiors and accept the power distance between superiors and subordinates. A related aspect of Saudi culture is that power and authority are distributed unequally between the members of society, characterized by a reluctance to question one's superiors. For example, managers prefer to maintain a high level of power distance between themselves and their employees in order to remain in their positions and foster their personal interests, whether for themselves, their family or their friends. This is influenced by *wasta* which is dominant in these organizations. Finally, the dominant hierarchy culture in Saudi public organizations may be attributed to employees who prefer to be guided and told what to do. They tend to have a strong orientation towards avoiding conflict with their managers, who may therefore use their authority over them unfairly. These arguments are supported by contributors to the literature such as Barakat [22], Bjerke and Al-Meer [23] and Common [24].

Market Culture: The results of the CVF questionnaire also revealed that the strength of market culture in the Saudi health care provision. Market culture here is based on competitiveness, productivity and achievement. It has an external focus and emphasises stability.

The strength of market culture, as indicated by the quantitative data, can be attributed to the nature of the sample of this study. This sample group includes hospitals from the private sector which are business organisations engaged in competition with other hospitals to win a share of the health care market. Bradley and Parker [25] have mentioned that private organisations relate more to external rather than internal orientation which represent the market and adhocracy in the CVF. Moreover, Dastmalchian *et al.* [26] suggest that business organisations tend to be more market-oriented in response to dynamic, complex and challenging environments.

Clan Culture: The results of the CVF questionnaire also revealed that there is strength of clan culture in the Saudi health care provision. Clan culture here is based on human development, cooperation, coordination, teamwork, employee involvement and rewards. The organization operates as an extended family. It has an internal focus and emphasizes flexibility. Jabbra and Jabbra [19] describe Saudi Arabian bureaucracy and public management as hampered by rigidity and complicated sets of rules and regulations, with long lines

of command, leading amongst other things to weak control and a situation where orders change gradually as they are passed down the ranks.

The strength of clan culture in the Saudi health care provision, as demonstrated in the quantitative data, can be attributed to the nature of health care organization as there is a strong subculture present within health organizations which represent the provisional group employees such as physicians, nurses etc. So there is a high probability that a clan culture (Group culture) will prevail. In this regard, Deal *et al.* [27] argue that as in many organizations, hospital cultures are made up of subcultures such as nursing units, professional groups and functional or project groups. However, unlike non-medical organizations, hospitals in particular have been described as having cultures that are weak or fragmented [28]. This may be related to the number of stable and strong subcultures within hospitals [29], which are often labeled as work group cultures [30]. This concludes that although the NHS in the UK is dominated by hierarchy culture as mentioned above, clan culture is also dominant within particular hospitals subgroups such as nurses, physicians, technicians etc [18, 31].

The strength of clan culture may also be attributed to the influence of Saudi national culture in the management style of these hospitals. This may be attributed to Islamic instructions which emphasizes the idea of unity and encourages people to care for and help each other. This result appears to coincide with previous studies of Tayeb [32], stating that Arabs are highly collectivist and will be extremely loyal to their in-group, which can go beyond the immediate family to include extended family, relatives and friends. Bjerke and Al-Meer [23] commented on the high levels of collectivism amongst Saudi managers, as they seem to prefer a close-knit social framework not only in the organizational sphere but also in the institutional sphere. In addition, it was found that *wasta* supported the strength of clan culture because it plays a vital role in shaping daily life in Saudi Arabia. This means that the management of health care provision reinforces extended families, friends and the importance of in-groups, which goes beyond the immediate family.

The characteristics of clan culture, i.e., cooperation, participation and respect, were highly valued among organizational members. A phenomenon that can be interpreted to imply a "rule by connections" where the obligations of an individual are influenced by the rule of law and are also fundamentally underpinned by relationships with other individuals [33]. Therefore,

several characteristics in addition to those ones mentioned above are related to clan culture as noted in the literatures [11, 17, 34].

Importantly, the quantitative findings of this study revealed that the strength of clan culture in Saudi hospitals appear to be dissimilar with Cameron and Quinn [3] study of mostly American public organizations. This could be attributed to the Saudi national culture which has been described as being collectivist rather than individualist which is a characteristic of American culture [35].

Adhocracy Culture: The findings of quantitative data also indicate the strength of adhocracy culture in the Saudi health care provision. Adhocracy culture in this context is based on entrepreneurship, innovation, freedom, uniqueness and development. The organization works by trying new things and looking for new opportunities. It has an external focus and emphasizes flexibility.

The strength of adhocracy culture, as revealed in the quantitative data on Saudi health care provision, can be attributed to the nature of health care organizations. This is due to the fact that adhocracy culture emphasizes creativity and innovation through the acquisition of new resources and creating new challenges. Trying new things and prospecting for opportunities are valued. These principles are consistent with dynamic work in the hospitals which is changeable and renewable. In this regard, Twaddle [36] argues that health services have become much more dependent on innovations and advanced technology, which means that they rely on advanced technology in order to provide efficient services. Ham [37] also mentioned that development and advances in medical science will give rise to new demands. These advances cover a range of possibilities, including innovations and improvement in surgery, drug therapy, screening and diagnosis. The pace of innovation and advance is likely to quicken, with significant implications for the funding and provision of services. This result is consistent with previous studies which have employed the CVF in health care organization in different contexts, which conclude that the US health care system is dominated by an adhocracy culture [18, 38, 39].

This study revealed that there were both differences and similarities between the findings of this study and other studies which have employed the CVF in different contexts. This was attributed to the differences between the national culture of Saudi and other countries where these studies were conducted. However, it was not

surprising to find the relative strength of four types of culture (Hierarchy, market, clan and adhocracy), as revealed by the quantitative data. This could be attributed to the nature of health care organizations which are considered to be large and complex organizations with administrative trends that supported the prevalence of hierarchy culture.

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