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Cultural Impact on e-service Use in Saudi Arabia: The Need for Interaction with other Humans

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***Abstract*— This paper reports the results of a mixed method approach to answer: To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? This paper will firstly, introduce the importance of culture and define the aspects of Saudi culture with focus on our scope: the fear of a lack of Interaction with other Humans. It will then describe the method used and present the qualitative and quantitative findings related to the need for Interactions with other Humans. Much of the written literature about human interaction aims at Information Systems design or design improvement. Yet, this is different to what is being investigated in this study. One of the factors this study will consider is the perceived lack of interaction with other humans or the anxiety people may feel in missing the physical interaction with other people by fully moving business interaction to the virtual world. The review of the literature indicates that the impact of such factor on Information and Communication Technologies (ICT) use has not been studied. This research aims to cover this gap by investigating to what extent the fear of a lack of Interaction with other Humans, as one of Saudi Arabia's cultural values, impacts on e-service use in Saudi Arabia. The tested hypothesis was found consistent with its predicted outcome: the fear of a lack of Interaction with other Humans is a negative predictor of intention to use e-services in Saudi Arabia. It is evidenced that consideration of the impact of the cultural values will mainly contribute to the enhancement of ICTs implementation and use.**

1. Introduction

Culture has become a very important factor in Information and Communication Technology improvement. Cultural sensitivity may cause impediments, and require companies and governments to exert themselves to find a practical way to implement e-service. Culture is identified as an impediment to IT use by many researchers. It is a major factor, especially in Eastern countries who have interpersonal relationships exist even in business [1]. Additionally, culture has been identified as a barrier to e-commerce by 62% of 89 Small and Medium Enterprises in 17 countries [2], and linked at 93.8% as a barrier to e-business adoption in construction [3]. Data collected from 9,400 male commercial airline pilots in 19 countries confirms that national culture had an impact on cockpit behaviour over the professional culture of pilots [4]. This finding that even in a highly educated business environment (e.g. pilots, medical specialists …) the impact of culture still exists [4].

According to [5] different uses of IT are sometimes derived from the nature of a country's national culture. The cultures that enfold the individual interact and comprise the individual's unique culture, eventually influencing the individual's subsequent actions and behaviour. It was found by [6] that national culture is one of the factors that influence CMC (Computer Mediated Communication).

Since culture plays a vital role influencing technology implementation and use, this paper, as part of a full study, discusses the method and results of a quantitative study to measure the values of Saudi culture. A scarcity of large scale studies dealing with this topic and context to date, and the impact of cultural influence, emphasise the significance of this research.

2. Culture

There are various definitions for culture; some suggest it is "the human-made part of the environment"; while another sees culture as a "shared meaning system"; Culture is also defined as the "individual's characteristic way of perceiving the man-made part of one's environment". Definitions of culture in general entail the observation of rules, customs, responsibilities, and morals, which are affected by a range of levels of culture such as language, sexual characteristics, race, belief, geography, and employment. These aspects all influence interpersonal deeds [5]. Ideals are obtained at the early stage of someone's life from family, and the region in which they live. The combination of these creates a value system which is naturally stable but changeable over time, replicating changes in culture and individual knowledge [7]. Hofstede

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defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" [8].

The sensitivity to cultural diversity plays an essential role in the success/failure of e-business [9], and a successful system interface the design should consider cultural values, and keep in mind national culture. In fact, [10] contends:

> "No matter how promising a new e-business model or business practice appears on paper, if no one adopts it and uses it well, all strategizing, planning and development efforts will go to waste. This means that the success of e-business strategies depends on other people's behavior. And unfortunately, the e-business strategist has no direct control over other people's behavior. However, e-business strategists can significantly improve their chance of success by understanding why people sometimes resist e-business innovations and by knowing about the tradeoffs between the design and implementation of e-business innovations."

The unique feature of IT from other fields is its flexibility, which can result in similar products being implemented with very different forms and functions in different organisations [11]. However, much of the technology is designed and produced in developed countries, and the result is that it is "culturally-biased" in favour of their social and cultural values [12]. Consequently, developing countries encounter cultural and social obstacles when attempting to transfer technology, created abroad, into practice at home. The culture of a country or region greatly affects the acceptance of technology through its beliefs and values about modernization and technological development.

The [13] study, found that the lack of suitable cultural and organisational readiness was the main contributor to the failure of software implementations [13]. Moreover, the inconsistency between IT and the organisational culture can lead to the failure of an implementation, and this should be well controlled during the uptake phase. It has been suggested that "analysing the impact of a change before its implementation reduces the risk of failure" [14].

3. Saudi culture

There are many principles that form Saudi's culture, based firstly on religion, then the tribal system. Saudi Arabia has a unique position in the Islamic world since it is home to the two Holy Mosques for Muslims. Islam plays a significant role in Saudi's culture by defining the social manners, traditions, obligations, and practices of society. Kinship and tribal systems still impact on the individual's place in society and could affect their success or failure, both in the traditional and in the new areas of activity. In fact, the tribal system considered a major impact on the work place [15]. Study results at [16] confirms this by indicating that Saudi ranks much higher than the US in cultural dimensions.

Islam, as the first element of Saudi culture, sets the moral principles and behaviours in society through the Koran (the holy book) and the Sunna (the sayings and practices of the prophet Mohammed, peace be upon him). Look at a translated copy of the Koran with notes for more information [17]. The Koran has been a unifying force that significantly impacts and acts as a driver to create a common culture and legal system, Sharia, in the Arabic countries. Equality is ensured for all regardless of their health or wealth or any other criteria since the Muslim community is a brotherhood. The widespread statement is that morals come from religion [18].

Family is a highly valued part of the Muslim society, and its significance can be perceived from high to non-educated people in all types of living; Bedouin, rural, and urban. In these societies, self-interest comes after the family-interests [19]. Family importance has been emphasised by the Koran and the Sunna. Individuals are expected to sustain good relations with their relatives and provide help when needed rather than being generous to others. This interdependence in a network of relationships offers security to individuals through attachment and commitment to their groups, more than separateness and privacy. As part of the strong values towards group and family collectivism, leaders are expected to behave in a "paternalistic" style and provide employment opportunities and privileges to the in-groups, family members, and relatives of their own and employees. Many managers are criticized for providing privileges to their followers who are totally unproductive, which is regarded as unethical conduct. The person who is in the more powerful position solves many personal problems of the dependents, like helping in finding job opportunities, a place in the hospital for family members or personal business in the police station [19].

Arab culture is the second source that forms Saudi culture and a strong predictor of resistance to IT transfer [12]. [20] described the key characteristics of Arabs as: fatalism, culture of mind versus culture of heart, open versus closed mind, and vertical versus horizontal values. Religion, family, and national traditions often negatively affecting the acceptance of new innovations. The Arab culture stresses the importance of home and the traditional nature of its influence on adopting new technologies; culture sets the agenda for people's social lives. [12] contend that Arab societies (Jordan, Egypt, Saudi Arabia, Lebanon, and the Sudan) negotiate their technological issues within the context of their culture. Cultural conflicts between the organization and management style of Western and Arab business leaders and workers have influenced the system development process and result in unsuccessful approaches to computer use and policy. Diverse cultural values have emerged from a common linguistic, historical, and spiritual background.

4. The fear of a lack of Interaction with other Humans

Much of the written literature about human interaction aims at Information Systems design or design improvement. Yet, this is different to what is being investigated in this study. One of the factors this study will consider is the perceived lack of interaction with other humans or the anxiety people may feel in missing the physical interaction with other people by fully moving business interaction to the virtual world. In such cases, the decision making process may be full automated and reduce the sense of humanity that was present when the decision making was undertaken in the "real" world.

Technology creates a gateway and has significantly contributed to the increase in human interaction that transcends physical boundaries. However, some still exercise caution and resist this kind of interaction for various reasons. Technology can serve either to bring us together or to isolate us. It also can expand citizen participation in governmental affairs. Its power, however, depends on how it is implemented [21].

Computer-mediated human interaction is prolonged interaction between two or more people through the channel of a computer network [21]. It was found by Chadhar and Rahmati (2004) that national culture is one of the factors that influence Computer Mediated Communication (CMC). In individualist cultures, CMC is more successful but collectivist cultures are less likely to use technology like CMC [6]. Hence those technologies have failed when implemented. An example of this is the failure of online shopping in some developing countries.

The negative impact of the lack of human interaction within CMCs is well studied. However, Gilbert and Balestrini (2004) have mentioned that the lack of interaction with other humans can be a benefit in e-government systems [22]. An explanation of their statement is that systems, different from humans, are not temperamental and hence not prone to nepotism or corruption. Additionally, systems are accurate in representing the government process, whereas humans lack accuracy in some instances.

Considering face-to-face interaction, Loch et al. (2003) investigated the role of social norms and technological enculturation on diffusing the Internet in the Arab world. They contend that one difference that distinguishes their study from the previous ones is studying "face-to-face versus electronic meeting". The aim was to narrow down the more general construct of social norms that measure culture-specific beliefs. According to their study, "social norms are typically defined as social pressure on an individual to perform, or not to perform, some behaviour. The closer the affinity of the individuals with their reference group, the more likely the individuals are to perform according to reference group expectations" [23]. This illustrates the influence of social norms, which beside the technological enculturation explain 47% of the variance in diffusing the Internet in the Arab world [23].

Humans on average spend somewhere between 30-70% of their waking hours in social interaction [24]. Relatively consistent with this, Loch et al. (2003) found that 46% of their study's participants expressed their concern that their social life may be threatened by new technologies like the Internet [23].

Hornecker and Buur (2006) introduced a conceptual framework that focuses on the user experience of interaction and aims to distinguish between the physical and the social aspects of interaction [25]. They believe that the support of social interaction and collaboration might be the most important and domain-independent feature of tangible interaction. Yet, it has not attracted sufficient attention [25].

In her study, Stromer-Galley (2000) found most political campaigns in the United States avoid direct interaction with the public in favour of media interaction (e.g. TV or Radio live interview) [21]. Human interaction includes not only the physical interaction but also the online interaction like email or discussion forum. The three reasons behind this are stated by Stromer-Galley (2000) as follows:

1. Burdensome: interaction is a lot harder to do in practice than in desire. The candidate time and energy were better spent on television interview.
2. Loss of control: the common outcome is that an interactive website leads to loss of control over the one's content on the website. In fact, most candidates do not see a web board or chat forum as being worth that risk.
3. Loss of ambiguity: interaction results in losing the ability to remain ambiguous in policy positions [21].

In his study about human interaction, Levinson (2006) found very little empirical information on the "universal properties of interaction". He contends that common means of human interaction like language and face-to-face interaction are undertaken differently in different cultures [24]. In some cultures, people like to be in physical contact and could resist any method that hinders them from such contact, whereas in some individualistic cultures that may not be so. This section explains that the context of this study, Saudi Arabia, belongs to the former category where people prefer physical interactions.

Some business processes need employees in the back office to make the decisions. This kind of decision is often systematic since they manage with what is provided in the system. As they do not directly interact with the customer, they do not know whether or not there are specific reasons to not provide the whole requirements. Even when decisions do require human intervention, the indirect nature of the communication (via e-services rather than face to face) may lead to less empathic decision-making by those making the decision. Again, Islamic and Arabic traditions, as the main sources of Saudi Arabian culture, emphasise the importance of considering empathy when interacting with others. The use of electronic services would reduce or not allow such consideration**. Thus we hypothesis that:**

The fear of a lack of interaction with other humans is a negative predictor of intention to use e-services in Saudi Arabia.

The expected outcome of this hypothesis is that the more a participant scores on the fear of a lack of interaction with other humans the less likely he intends to use e-service as a result.

5. Methodology

This study uses a mixed method approach to answer To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? Cultural theories, dimensions, and models previously identified in the literature in addition to individual interviews were obtained in an attempt to answer this question.

During sampling the researchers sought to reduce the risk of obtaining invalid data by targeting specific participants who would provide valuable contribution to the topic especially in the exploratory stage [26]. Focus groups, especially as one of the various qualitative methods are frequently conducted with purposively selected samples [27]. This study used a convenience sampling procedure for two important reasons. Groups can be selected quickly, and the potential participants can be readily identified. This technique, as [28] contend, "involves drawing samples that are both easily accessible and willing to participate in a study" [28]. It is indeed a validated sampling technique where the researcher recruits the potential participants through the convenient available resources for him/her. There were two criteria to identify the potential participants of our study: the age (younger group 30 years old and below, and older group 31 years old and above), and the willingness to participate.

Consequently, four focus groups were conducted in Saudi Arabia. Each focus group lasts between 60 – 90 minutes and has 4 – 6 participants of experts and users. The Experts' groups are comprised of the staff of Yesser who expose to various implementation experiences as part of their daily duties and that was one of the rationals behind choosing Yesser only. While General users (customers) are the users of IT online business and e-government services in the general public. Since the Experts samples belong to an organisation, it has been approached directly. While the general users who are the second target group were recruited from an English language Academy because of the variety of people attending it and the availability of the venue for the focus groups to meet. The initial questions were broad in order to attract as much information as possible, while the last one was specifically designed to refer to our topic. Although both groups have six questions, there was a slight difference in the questions for each one.Recommended font sizes are shown in Table 1.

A. Sampling Procedure (Qualitative Phase)

During sampling the researchers sought to reduce the risk of obtaining invalid data by targeting specific participants who would provide valuable contribution to the topic especially in the exploratory stage [26]. Focus groups, especially as one of the various qualitative methods are frequently conducted with purposively selected samples [27]. This study used a convenience sampling procedure for two important reasons. Groups can be selected quickly, and the potential participants can be readily identified. This technique, as [28] contend, "involves drawing samples that are both easily accessible and willing to participate in a study" [28]. It is indeed a validated sampling technique where the researcher recruits the potential participants through the convenient available resources for him/her. There were two criteria to identify the potential participants of our study: the age (younger group 30 years old and below, and older group 31 years old and above), and the willingness to participate.

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B. Sampling Procedure (Quantitative Phase)

Using snowballing technique, employees of public and private sector in Saudi Arabia were targeted for this study. Snowball is a sampling technique that is "based on social network logic whereby people are linked by a set of social relationships and contacts" [29]. According to [30], public sector employees in Saudi Arabia number over one million (1.098.127) in 2010, while in the private sector only 724.655 Saudi employees registered in the same year [31]. The link to the online questionnaire was sent to 195 emails from the researcher's personal list asking them to participate and invite their colleagues and friends to participate as well. The same invitation letter was also posted on the researcher's personal profile on facebook, and a modified message (because of the characteristic length restrictions) on Twitter. The invitation message was written in Arabic and included a brief about the research, the research team and their contact details, the research ethics committee approval and their contact details for any complaint or comments on the research conduct.

One of the disadvantages of snowball sampling is the difficulty of "obtaining parameters of representation" [29]. Sample selection and size influence "the kind of statistical procedure" and consequently they reduce the potentiality of generalisation [32]. Consequently, a first follow up email

was sent one week after the questionnaire was opened, and then a second and last email was sent one week before closing it thanking those who completed the questionnaire and reminding who not completed or started.

Although quantitative methods are less likely to be used alone, they "appear to be better delineated and more focused than qualitative" [33]. As a result of the individual interviews and focus groups we conducted earlier, and since most of the cultural studies conducted in Saudi Arabia used the existing global cultural indices, culture here was measured with special attention to the fear of a lack of Interaction with other Humans as an element of the Saudi culture values. This new built construct needed to be examined in wider population in order to confirm and build the final framework of cultural values. This method has been selected to confirm the critical cultural values that impact on e-service use in Saudi Arabia and be able to generalise it. This illustrated the first part of our research model (Fig. 1) which is culture. The second part measures the use of e-service in Saudi Arabia using the Technology Acceptance Model (TAM) designed by [34]. Perceived Usefulness and Perceived Ease of Use were measured using six indicators for each one of them. The remaining two factors of TAM were measured using one statement each. There were some modifications in the statements to fit the study context.

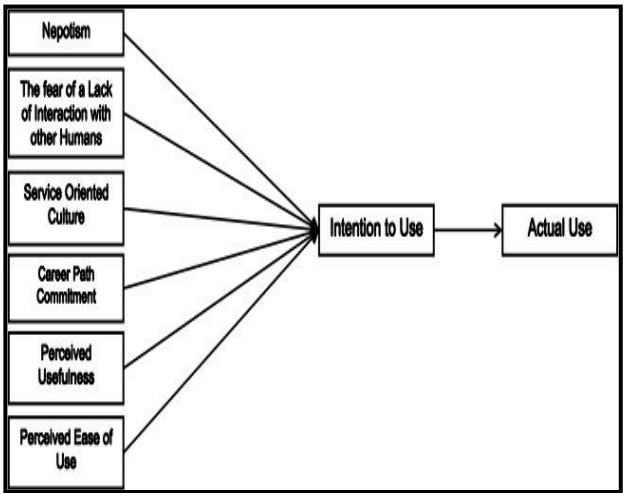

Fig. 1 The research model

6. Pilot Study

Piloting the questionnaire differs from one researcher to another; but there is no one way agreed upon [35]. Moore and Benbasat (1991) contend that the development of a questionnaire goes through three stages namely: "item creation" by identifying the existence in the literature that could measure your construct and creating something new if there is nothing. The second stage is to review these items to ensure their usability by experts. The final stage is to test the whole questionnaire before finally inviting participants to commence participation [36].

Culture and language differences are considered to be two major challenges for translating a research instrument [37]. Our questionnaire was created in English then, translated into Arabic by the researcher to ensure the accuracy especially in terms of cultural context. It was then, as suggested by [37], translated back into English by a certified translator to confirm the proper language was used in the first translation attempt. A comparison between these two versions was made and only minor differences obtained which confirms the questionnaire usability. As a result the questionnaire of this study was administrated in Arabic to ensure the clarity and avoid influencing the response [38].

The wording of questions is another challenge that the researcher must consider when constructing the questionnaire. Using the wrong terms is problematic; "from excessive vagueness to too much precision, from being misunderstood to not being understood at all, from being too objectionable to being too uninteresting and irrelevant" [35].

Q-sort method asks for categorising the newly built items under a suitable category [39]. Four Saudi Arabian research fellows were asked to sort the questionnaire items. They were given a sheet with two tables in it; the first one included the category names (8 categories) and alphabetical codes, while the second one included 49 items with numerical codes. The second table had three columns: item number (random order), item statement and a blank column headed by section. The task was to place the suitable section code that each item belongs to in the section column. As stated by Block (1961), "casual but still informative method of simply identifying the discrepantly placed Q-items is recommended". The highest variance percentage in the q-sort we obtained was about 15%, which is traditionally acceptable [39].

The potential participants should be engaged in piloting the questionnaire and "the convenience of the pilot sample" [37] should be considered. Those could be research fellows who have the same interest and / or the study purposes [17, 40]. The other categories are "the potential users of the data … to find people with substantive knowledge of the questionnaire topic" and of course some of the targeted population [35]. The questionnaire was piloted in two phases; first phase had nine participants, while the second phase had twenty participants. They both contributed to the design of the questionnaire.

To wrap-up, the questionnaire was piloted in two phases; first phase has nine participants, while the second phase has twenty participants. They both contributed to the design of the questionnaire. Accordingly, our questionnaire was comprised of nine sections that include close-ended questions with ordered choices except the last two optional questions that were asking participants about their job title and comments on the questionnaire.

7. Construct's foundation

This study aimed to measure the cultural impact on e-service use in Saudi Arabia. Since most of the cultural

studies conducted in Saudi Arabia used the existing global cultural indices, culture here was measured with special attention to the Saudi context through using new constructs. These constructs were built after conducting Focus Groups in Saudi Arabia with two different categories. The first category was e-service general users, and the second was experts from the Saudi e-government program (Yesser). Both categories were divided into two groups with respect to their age (30 years and below, and 31 years and above). Our scope in this article is only one construct: the fear of a lack of Interaction with other Humans. The following paragraph states the construct's foundations:

This factor expresses the lack of consideration for some special cases that need to be exempted. Some participants of the focus groups have shown their concern about employees after implementing e-services as relying on the system to make all decisions without any special consideration for some cases. An employee who works in front of the screen is dealing with hard materials with little sense of emotion that leads him to consider some cases as special.

The failure of online shopping and e-service implementation is mainly related to the following reason mentioned by one of the expert group interviewees:

"If I personally want to buy clothes, for example, I need to feel it, I need to see it. For people who are reluctant to e-services now I think it is the same". "There are some people who love to feel things; so they would prefer paper to e-services, even if you print out the documents, they would love to see the staff in person and have their document stamped".

One participant added that doing business online has "no effective communication between the customer and the staff which may result in a delay". On the other hand, Gilbert and Balestrini (2004) have mentioned the lack of human interaction as a benefit of adopting e-government [22]. Here in the focus groups one participant agreed with this by saying: "electronically you are dealing with a system and not a temperamental human (….), some employees are not culturally educated and consequently, misbehave with clients".

8. Statistical procedure

Partial Least Squares (PLS) path analysis is a relatively modern technique which is becoming increasingly more popular, particularly in business research [41-45]. It operates by partitioning the multidimensional variance to predict hypothetical cause and effect relationships between variables [46-47]. The analysis assumes that all the variance is useful, and can be explained. Consequently, there is no concern for residual or unexplained variance, as involved in ordinary least squares regression. PLS path analysis operates by constructing latent variables from the indicator variables measured by the researcher, using principal components factor analysis. Each latent variable is assumed to consist of one factor. The main assumption is that the latent variables are reliably measured (i.e., that the indicators hang together strongly to define a factor, or unidimensional concept). PLS path analysis is a very robust method, meaning that it can operate simultaneously on a large number of dependent and independent variables with minimal assumptions about their distributional or measurement characteristics. Unlike regression analysis, it is not restricted by small sample sizes, multicollinearity (i.e., strong inter-correlation between independent variables), or deviations of the variables from normality.

PLS path analysis is not supported by generalized statistics packages such as SPSS, and requires the use of dedicated software. The analysis performed in this study using Smart-PLS Version 2.0 [48], chosen because it is very user friendly. Its GUI (graphic user interface), including tools to enhance the colour, size, and layout of the path diagram, permits the analysis to be performed relatively quickly and easily [42]. The path diagrams constructed using the GUI interface for the purposes of this study is presented in Fig. 2 (The hypothetical relationships between variables). The variables were functionally defined as either latent variables or indicator variables. The indicator variables (i.e., the individual item scores measured by the researcher, and imported into Smart-PLS from an SPSS data file) were specified using yellow rectangular symbols. Each indicator variable was alphanumerically coded so that it could be indentified in the path diagram. The latent variables (i.e., the variables computed by the Smart-PLS algorithm using principal components factor analysis) were specified using blue oval symbols.

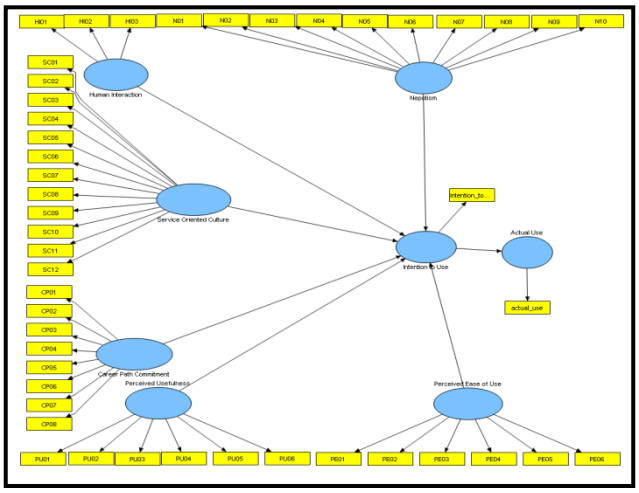

Fig. 2 The hypothetical relationships between variables

9. Results

The results of the qualitative phase were presented in the construct's foundation section. Below are the results of the quantitative phase.

A total of 341 responses were received, 254 out of them were completed and valid for the analysis making the percentage of about 74.50%. The data were checked against the missing values and outliers.

The question about age divided into seven age groups. As indicated in Fig. 3, majority (61.8%) of the participants

ranged between 25 and 34 years old. In comparison one participant only was in the over 60 age group.

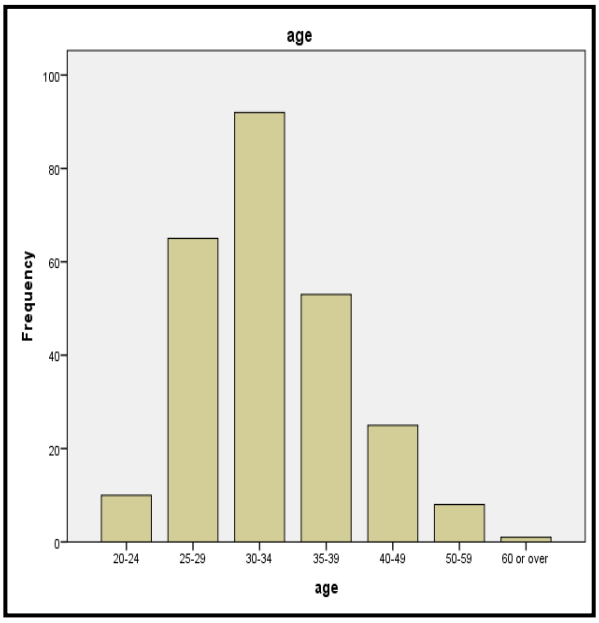

Fig. 3 age profile for the research sample

Answers to the question about the education level were predefined in six different groups. About half of the participants (44%) have a master degree. Diploma and Doctoral degrees were similar, 18 participants for the former and 17 for the latter (Fig. 4).

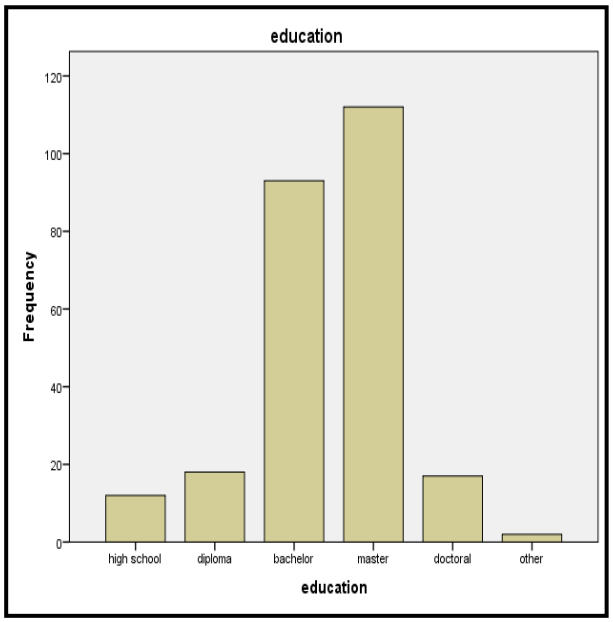

Fig. 4 education level for the research sample

Three categories represented the career sector for participants: Public, Private and Other. Other was added as an option since Saudi Arabia, similar to other countries, has some organisations that are owned by the Government and Shareholders at the same time. Majority (70.5%) of our study participants were working for the public sector.

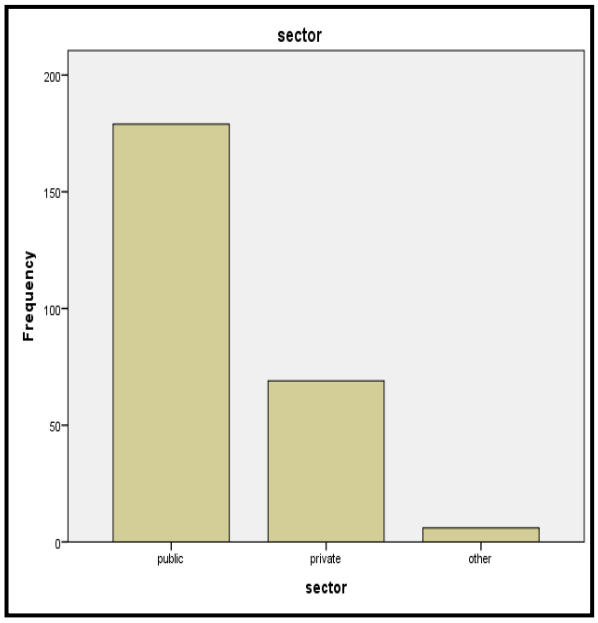

Fig. 5 career sector for the research sample

Three items were used to measure the fear of a Lack of Interaction with other Humans. The first (HI01) and third (HI03) items were normal; scoring 3.8 and 4.0 respectively. The second item (HI02) was a marginally right skewed with a score of 2.9. This means that most participants did not see a threat to the community life as a result of e-service use.

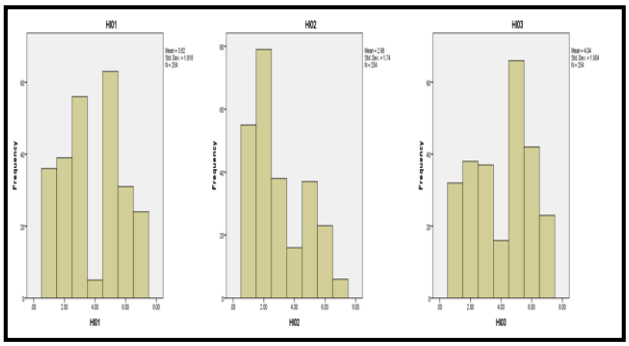

Fig. 6 Answers to the fear of a lack of Interaction with other Humans items

The results were only partly consistent with hypothesis H2: The fear of a Lack of Interaction with other Humans is a negative (-) predictor of Intention to Use. There was a weak negative relationship between the fear of a Lack of Interaction with other Humans and Intention to Use indicated by a path coefficient of -.184.

10. Discussion

The lack of interaction with other humans is different from what has been discussed in the literature about human interaction. Most of the literature that discussed human interaction was aimed at outcomes like designing new

systems, devices etc. or improving an existing one in favour of increasing usability. It is something specific to the Saudi Arabian culture that missing direct contact with people as a result of relying on the electronic means was not preferred and this preference may extend from social contexts to business contexts. People in this culture regardless the features of new electronic systems are likely to be in direct physical more than virtual contact. They stressed that we are still human and there is a need for some circumstances to be considered and looked at it separately. One of the focus groups' participants said: the Western world nowadays

> "reaches the stage of using technology where there is no kinship, no visiting between relatives like in our society, only chat and web cam. Our elder people fear that we reach the same stage, they prefer to be physically surrounded by their families and not by using technology".

The above quote illustrates the role of Islam in forming most of the Saudi culture aspects. Maintaining the sense of humanity has been emphasised by the Qur'an and the Sunna. How does this work? The answer is most of the decision makers in the Saudi organisations are people above 50s who do not know, in many cases, how to use computers [15]. Although it is relatively easy for some of them to overcome this, they will not make the required effort as a fear of the hidden consequences like the Lack of Interaction with other Humans.

Confirming the finding of Chadhar and Rahmati (2004) and contradicting Gilbert and Balestrini (2004), the fear of a Lack of Interaction with other Human was found to have a negative impact on intention to use e-service in Saudi Arabia. This means that employees in Saudi Arabia are not willing to use e-services because they are afraid of missing human sense in dealing with customers who are in need to. Saudi people, in general, want to keep contact with other people and therefore are unlikely to use online services

The literature indicates that Saudi employees are fearful that e-services will lead to inflexible processes that do not take account of special needs. For example, a person who misses a requirement for an x business process, for some critical reason/s, will not have his work done through the system unless he provided all of the requirements. Whereas if the same situation happened and an employee, and not the system, was in charge; this person could be exempted from this requirement as a result of his critical situation.

Furthermore, there is a fear that employees after implementing e-services will fully rely on the system to take all decisions without any special consideration for some cases, which will lead to reducing the sense of empathy. Some employees will neglect critical situations of customers, as above, because of the systematic nature of e-services. Islamic and Arabic traditions encourage helping people in general and especially those in need. Implementing e-services is seen to reduce / obstruct such help.

11. Conclusions

The PLS model used in this study was relatively well specified in terms of the reliability. The Cronbach's alpha coefficients were greater than 0.7. which means most of the factor loadings were > 0.5.

The R^2 value of .200 indicated that 20% of the variance in Intention to Use was explained reflecting a medium to large effect. While the R^2 value of .074 indicated that 7.4% of the variance in Actual use was explained too reflect a relatively small effect size, and therefore the research model exhibited somewhat limited practical and theoretical significance.

There are many organisations throughout the world that have failed to successfully implement and use e-service, especially in developing countries. Culture has been widely addressed as a reason behind this [2, 4, 6, 9, 45]. However, values that construct culture have not attracted the same attention. This paper tested the fear of a lack of Interaction with other Humans as one of the Saudi cultural values that have not been studied suffeciently in the literature. Organisations should overcome the cultural barriers and acknowledge the presence of those values in order to better achieve successful engagement by their employees in e-service use.

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