Cultural impact on e-service use in Saudi Arabia:
Results from Questionnaire

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Abstract- **This paper reports the results of a mixed method approach to answer: what are the cultural values that impact on e-service use in Saudi Arabia? Cultural theories, dimensions, and models previously identified in the literature, in addition to individual interviews and focus groups, test the current identified uncovered elements of Saudi culture. This paper will firstly, introduce the importance of culture and define the aspects of Saudi culture. It will then describe the method used and present the questionnaire findings. All of the tested hypotheses were found consistent with their predicted outcomes except hypotheses 4 and 8 were partially consistent. It is evidenced that consideration of the impact of the cultural values will mainly contribute to the enhancement of social and organisational aspects of e-society research and practices, by deeply understanding them as of the influntials to e-service implementation.**

Keywords Cultural impact, e-service, Saudi Arabia

I. 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 values strong interpersonal relationships in business [37]. Additionally, culture has been identified as a barrier to e-commerce by 62% of 89 Small and Medium Enterprises in 17 countries [10], and linked at 93.8% as a barrier to e-business adoption in construction [5]. 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 [31]. This finding that even in a highly educated business environment (e.g. pilots, medical specialists …) the impact of culture still exists [31].

According to [3] 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 [9] 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.

II. 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 [3]. 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 [38]. Hofstede defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" [23].

The sensitivity to cultural diversity plays an essential role in the success/failure of e-business [26], and a successful system interface the design should consider cultural values, and keep in mind national culture. In fact, [29] 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 [12]. 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 [39]. 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 [17] study, found that the lack of suitable cultural and organisational readiness was the main contributor to the failure of software implementations [17]. 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 [14]. It has been suggested that "analysing the impact of a change before its implementation reduces the risk of failure" [42].

III.   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 [2]. [1] study 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 [14]. 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 [24].

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 [25]. 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 [25].

Arab culture is the second source that forms Saudi culture and a strong predictor of resistance to IT transfer [39]. [22] 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. [39] 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 organisation 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.

IV.   METHODOLOGY

This study uses a mixed method approach to answer What are the cultural values that impact on e-service use in Saudi Arabia? Cultural theories, dimensions, and models previously identified in the literature. In addition to individual interviews and focus groups were obtained in an attempt to answer this question.

Although quantitative methods are less likely to be used alone, they "appear to be better delineated and more focused than qualitative" [34]. 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 Saudi context through using new constructs. However, some questions were obtained from the literature [27, 16, 20, 28, and 7]. Those items 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 [13].
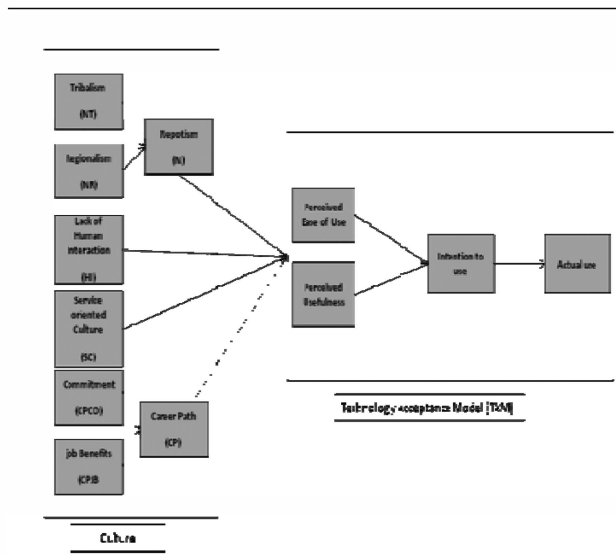
Figure 1. The research model

V. SAMPLING PROCEDURE

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" [35]. 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 [32]. 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" [35]. Sample selection and size influence "the kind of statistical procedure" and consequently they reduce the potentiality of generalisation [6]. 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.

VI. PILOT STUDY

Piloting the questionnaire differs from one researcher to another [15]. [33] 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 new items if

there is nothing. The second stage is to review these items to ensure their useability by experts. Third and last stage is to test the whole questionnaire before finally invite participants to commence their participation. The three stages of creation, review, and test were implemented in developing our instrument and some statistical tests such as Q-sort were made as well to confirm its suitability. Modifications to the questionnaire have been done as a result of this pilot.

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.

VII. CONSTRUCTS DEFINITION

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). The following points state these constructs and their definitions:

Nepotism: Nepotism is defined by [8] as "using your power or influence to get good jobs or unfair advantages for members of your own family". The two main drivers of nepotism in Saudi Arabia are tribe and region. Therefore, this construct was separated into two different sub-constructs: Tribalism and Regionalism. Each of these sub-constructs has new created five indicators.

Lack of human interaction: This factor expresses the lack of consideration for some special cases that need to be exempted. Some participants of the Focus Groups show concern about employees after implementing e-services relying on the system to take all decisions without any special consideration for some cases. Indicators 1 and 3 were built by the researcher, while indicator number two was adapted from [27].

Service oriented culture: This construct assumes that organisations in Saudi Arabia are not service oriented as most of the public sector employees see their job as the financial source to cope with their lives, and not as a way to contribute to society. This is one of the reasons they do not care about serving customers as indicated by the Focus Groups participants. Twelve indicators here representing the construct were obtained from [16].

Career path: Most of Focus Groups' participants expressed their dissatisfaction with the Saudi public sector organisations especially as they see it influenced by Saudi culture more than the private sector. This construct was measured from the aspects of

organisational commitment and job benefits. Eight items were adapted [20] to measure the organisational commitment. On the other hand, the first three items measuring the job benefits were adapted from [30], and the fourth one was obtained from [7].

The second part of the research model (figure 1) measures the use of e-service in Saudi Arabia using the Technology Acceptance Model (TAM) [13]. 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.

VIII. STATISTICAL PROCEDRURE

Partial Least Squares (PLS) path analysis is a relatively modern technique which is becoming increasingly more popular, particularly in business research [11, 40, 21, 41, and 4]. It operates by partitioning the multidimensional variance to predict hypothetical cause and effect relationships between variables [18, and 19]. 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 [36], 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 [40]. The path diagrams constructed using the GUI interface for the purposes of this study are presented in Figures 2 (Model 1), 3 (Model 2), and 4 (Model 3). 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.

IX. RESULTS

A total of 341 responses were received, 254 out of them completed and valid for the analysis making the percentage about 74.50%. The majority (61.8%) of the participants ranged between 25 and 34 years with 44% having a master degree and 70.5% working for the public sector.

Model (1)

The parameters for Model (1) to predict the Intention to Use and the Actual Use of e-services based on the responses of 254 participants are presented in Fig. 2. The factor loadings of the multiple reflective indictors on their corresponding latent variables were between 0.633 and 0.837. Because all of the loadings were strong (i.e., >0.5) and none very weak (i.e., <0.3) it is inferred that the Perceived Usefulness and Perceived Ease of Use were reliably measured. Intention to Use and Actual Use only had one indicator each, and so their reliability is unknown, and the loadings were 1.000. The results were consistent with: H1: Intention to Use is a positive (+) predictor of Actual Use; H2: Perceived Usefulness is a positive (+) predictor of Intention to Use; and H3: Perceived Ease of Use is a positive (+) predictor of Intention to Use. The most important predictor of Intention to Use, indicated by a moderately strong path coefficient of 0.307, was Perceived Ease of Use. In comparison, the relative strength of the relationship between Intention to Use and Perceived Usefulness was very weak, indicated by a path coefficient of 0.097. A relatively weak relationship between Intention to Use and Actual Use was indicated by a path coefficient of 0.271. The R^2 values of 0.133 for Intention to Use and 0.074 for Actual use reflected relatively small effect sizes. Only a small proportion of the variance was explained, and therefore Model (1) exhibited somewhat limited practical and theoretical significance.
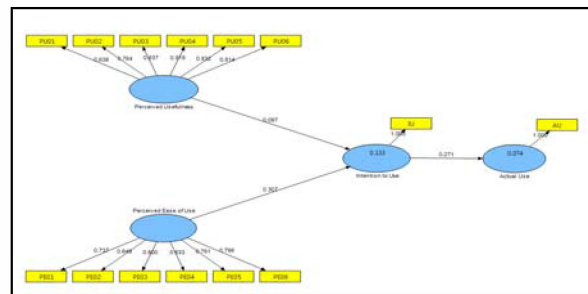

Figure 2. Output from Smart-PLS including the parameters for Model (1) to predict Intention to Use and Actual Use of e-services

Model (2)

The parameters for Model (2) to predict the Perceived Ease of Use of e-services based on the responses of 254 participants are presented in Fig. 3. The loadings of the indictors on their corresponding latent variables were between 0.067 and 0.909. Four loadings were <0.5, specifically 0.379 for NR02, 0.067 for NR05, 0.194 for NT02 and -0.204 for NT05. Because the majority of the loadings were strong (i.e., >0.5) it can be concluded that the latent variables were reliably measured.

The results were only partly consistent with hypothesis H4: Tribalism and Regionalism (Nepotism) are negative (-) predictors of Perceived Ease of Use. Although there was a weak negative relationship between Tribalism and Perceived Ease of Use, indicated by a path coefficient of -0.241, there was a very weak positive relationship between Regionalism and Perceived Ease of Use, indicated by a path coefficient of 0.108.

The results for Model (2) were completely consistent with H5: Lack of Human Interaction is a negative (-) predictor of Perceived Ease of Use, indicated by a moderately strong negative path coefficient of -0.305. The results were also consistent with H6: Service Oriented Culture is a positive (+) predictor of Perceived ease of Use , indicated by a weak positive path coefficient of 0.148 and with H7: Commitment and Job Benefits (Career Path) are positive (+) predictors of Perceived Ease of Use, indicated by very weak path coefficients of 0.104 and 0.068 respectively. The R^2 value of 0.193 indicated that 19.3% of the variance in Perceived Ease of Use was explained, reflecting a medium effect size with moderate practical and theoretical significance.
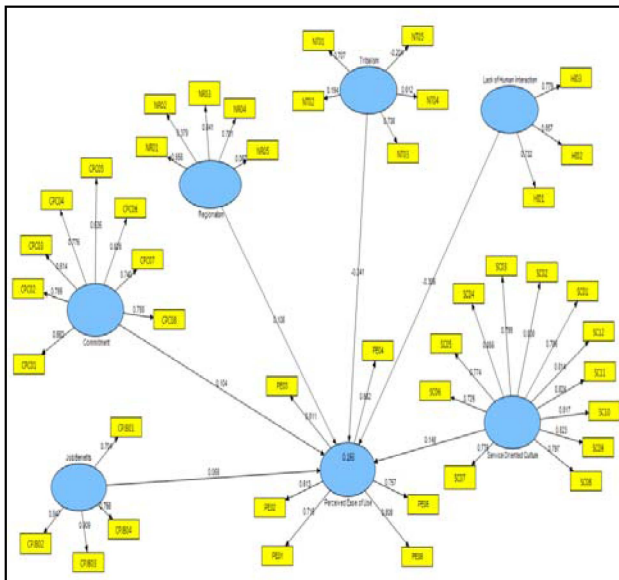

Figure 3. Output from Smart-PLS including the parameters for Model (2) to predict Ease of Use of e-services

Model (3)

The parameters for Model (3) to predict the Perceived Usefulness of e-services based on the responses of 254 participants are presented in Fig. 4. The indictors loadings on their corresponding latent variables were between 0.092 and 0.909. Five of the loadings were < 0.5, specifically 0.401 for NR01, 0.415 for NR02, -0.406 for NR03, -0.214 for NR04, and 0.092 for NT05. Because the majority of the loadings were strong (i.e., >0.5) it can be concluded that the latent variables were reliably measured. The reliability of Regionalism, however, was relatively low, because only one strong indicator was identified.

The results were only partly consistent with hypothesis H4: Tribalism and Regionalism (Nepotism) are negative (-) predictors of Perceived Usefulness.

Although there was a very weak negative relationship between Tribalism and Perceived Usefulness, indicated by a path coefficient of -0.046, there was a weak positive relationship between Regionalism and Perceived Ease of Use, indicated by a path coefficient of 0.174. The results were consistent with H5: Lack of Human Interaction is a negative (-) predictor of Perceived Usefulness, indicated by a weak negative path coefficient of -0.269. The results were consistent with H6: Service Oriented Culture is a positive (+) predictor of Perceived Usefulness, indicated by a very weak positive path coefficient of 0.045. The results were also consistent with H7: Commitment and Job Benefits (Career Path) are positive (+) predictors of Perceived Usefulness, indicated by weak and very weak path coefficients of 0.164 and 0.033 respectively. The R^2 value of 0.146 indicated that 14.6% of the variance in Perceived Usefulness was explained, reflecting a medium effect with moderate practical and theoretical significance.
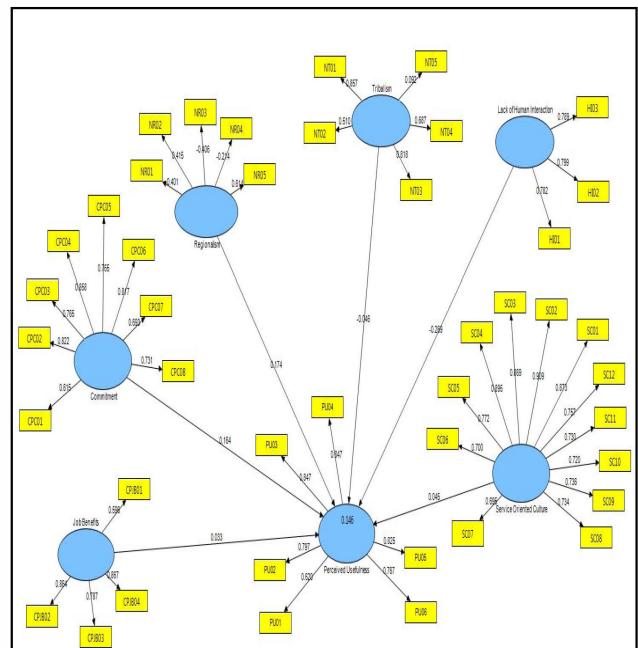

Figure 4. Output from Smart-PLS including the parameters for Model (3) to predict Perceived Usefulness of e-services

The relative consistency of the hypotheses with respect to the results of the PLS path analysis is summarised in Table 1.

Table 1. Consistency of the hypotheses with the results of PLS path analysis

	Hypothesis	**Result**
H1	Intention to Use is a positive (+) predictor of Actual Use	Consistent
H2	Perceived Usefulness is a positive (+) predictor of Intention to Use	Consistent
H3	Perceived Ease of Use is a positive (+) predictor of Intention to Use	Consistent
H4	Tribalism and Regionalism, (Nepotism) are negative (-) predictors of Perceived Ease of Use	Partially consistent
H5	Lack of Human Interaction is a negative (-) predictor of Perceived Ease of Use	Consistent

H6	Service Oriented Culture is a positive (+) predictor of Perceived Ease of Use	Consistent
H7	Commitment and Job Benefits (Career Path) are positive (+) predictors of Perceived Ease of Use	Consistent
H8	Tribalism and Regionalism (Nepotism) are negative (-) predictors of Perceived Usefulness	Partially consistent
H9	Lack of Human interaction is a negative (-) predictor of Perceived Usefulness	Consistent
H10	Service Oriented Culture is a positive (+) predictor of Perceived Usefulness	Consistent
H11	Commitment and Job Benefits (Career Path) are positive (+) predictors of Perceived Usefulness	Consistent

X. CONCLUSIONS

The PLS models used in this study were relatively well specified in terms of their reliability. The Cronbach's alpha coefficients were greater than 0.7. which means most of the factor loadings were > 0.5, with the exception of the indicators for Regionalism and Tribalism. The reliability of Model (1) was limited because Intention to Use and Perceived Usefulness were only measured using single indicators.

The R^2 values indicated that only a small proportion of the variance was explained in Model (1), and therefore the Model exhibited relatively limited practical and theoretical significance. The R^2 values for Models (2) and (3), however, were higher, reflecting medium to large effect sizes with correspondingly substantive 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 [5, 9, 10, 26, and 31]. However, values that construct culture have not attracted the same attention. This paper tested some cultural values that have not been studied suffeciently in the literature. Consideration of the impact of these values in the future will mainly contribute to the enhancement of social and organisational aspects of e-socity research and practices by deeply understanding them as of the influntials to the use and implementation of IT.

REFERENCES

[1] Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information & Management, 44*(8), 681-691.

[2] Al-Shehry, A., Rogerson, S., Fairweather, N. B., & Prior, M. (2006, September 11 2006). *The motivations for change towards e-government adoption: Case studies from Saudi Arabia.* Paper presented at the eGovernment Workshop 06 (eGOV06), Brunel University, West London, UB8 3PH.

[3] Ali, M., Brooks, L., & Alshawi, S. (2008). *Culture and IS: A criticism of predefined cultural archetypes studies.* Paper presented at the The Fourteenth Americas Conference on Information Systems, Toronto, Canada.

[4] Anderson, R. E., & Swaminathan, S. (2011). Customer Satisfaction and Loyalty in E-Markets: A PLS Path Modeling Approach. *The Journal of Marketing Theory and Practice, 19*(2), 221-234.

[5] Aranda, G., Stewart, M., & Stewart, P. (2005). Barriers to e-business adoption in construction International literature review [Electronic Version].

[6] Bazely, P. (2004). Issues in mixing qualitative and quantitative approaches to research. In R. Buber, J. Gadner & L. Richards (Eds.), *Applying qualitative methods to marketing management research* (pp. 141-156): UK: Palgrave Macmillan.

[7] Buelens, M., & Van den Broeck, H. (2007). An analysis of differences in work motivation between public and private sector organizations. *Public Administration Review, 67*(1), 65-74.

[8] Cambridge. Cambridge Dictionaries Online, http://dictionary.cambridge.org/dictionary/british/nepotism (access Date: 14 Apr, 2011).

[9] Chadhar, M., & Rahmati, N. (2004). *Impact of national culture on ERP systems success.* Paper presented at the Second Australian Undergraduate Students' Computing Conference.

[10] Chappell, C., & Feindt, S. (2000). Analysis of E-commerce practice in SMEs. *Communications and Strategies Journal, 37*(1), 49-70.

[11] Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In *Modern methods for business research* (Vol. 295, pp. 295-336): London.

[12] Cooper, R. B. (1994). The inertial impact of culture on IT implementation. *Information & Management, 27*(1), 17-31.

[13] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340.

[14] Dawood, N. J. (2003). *The Koran / translated with notes* (Rev. 5th ed. ed.).

[15] Dillman, D. A. (1978). *Mail and telephone surveys*: Wiley New York.

[16] Gainer, B., & Padanyi, P. (2005). The relationship between market-oriented activities and market-oriented culture: implications for the development of market orientation in nonprofit service organizations. *Journal of Business Research, 58*(6), 854-862.

[17] Gargeya, V. B., & Brady, C. (2005). Success and failure factors of adopting SAP in ERP system implementation. *Business Process Management Journal, 11*(5), 501-516.

[18] Haenlein, M., & Kaplan, A. M. (2004). A beginner's guide to partial least squares analysis. *Understanding Statistics, 3*(4), 283-297.

[19] Hair, J. J., Black, W. C., Babin, B. J., Anderson, R. E., & Tatman, R. L. (2006). *Multivariate data analysis* (Sixth edition ed.). New Jersey: Prentice Hall.

[20] Hartline, M. D., Maxham Iii, J. G., & McKee, D. O. (2000). Corridors of influence in the dissemination of customer-oriented strategy to customer contact service employees. *The Journal of Marketing 64*(2), 35-50.

[21] Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. *Advances in International Marketing, 20*(2009), 277-319.

[22] Hill, C. E., Loch, K. D., Straub, D. W., & El-Sheshai, K. (1998). A qualitative assessment of Arab culture and information technology transfer. *Journal of Global Information Management, 6*, 29-38.

[23] Hofstede, G., & Hofstede, G. J. (2005). *Cultures and organizations: Software of the mind*: McGraw-Hill London.

[24] Hofstede, G. H. (1998). *Masculinity and femininity: The taboo dimension of national cultures*: Sage Publications, Inc.

[25] Kabasakal, H., & Bodur, M. (2002). Arabic cluster: a bridge between East and West. *Journal of World Business, 37*(1), 40-54.

[26] Kundi, G. M., & Shah, B. (2007). eBusiness in Pakistan: Opportunities and Threats. *Journal of Internet Banking and Commerce, 12*(3), 1-23.

[27] Loch, K. D., Straub, D. W., & Kamel, S. (2003). Diffusing the Internet in the Arab world: The role of social norms and technological culturation. *IEEE Transactions on Engineering Management, 50*(1), 45-63.

[28] Lyons, S. T., Duxbury, L. E., & Higgins, C. A. (2006). A comparison of the values and commitment of private sector, public sector, and parapublic sector employees. *Public Administration Review, 66*(4), 605-618.

[29] Markus, L. (2005). E-business change management: effective implementation of e-business strategies. In A. Farhoomand (Ed.), *Managing (e) business transformation: a global perspective* (pp. 376-401): Antony Rowe Ltd.

[30] MCS. Saudi Ministry of Civil Service, http://www.mcs.gov.sa/InformationCenter/Statistics/Pages/def ault.aspx (Access Date: 5 Dec, 2011)

[31] Merritt, A. (2000). Culture in the cockpit: do Hofstede's dimensions replicate? *Journal of Cross-Cultural Psychology, 31*(3), 283-301.

[32] MOL. Saudi Ministry of Labour, http://portal.mol.gov.sa/en/Statistics/Pages/MolStatistics2009. aspx (Access Date: 5 Dec, 2011)

[33] Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research, 2*(3), 192-222.

[34] Morse, J. M. (2003). Principles of mixed methods and multimethod research design. In T. Abbas & T. Charles (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 189-208): Sage Publications Thousand Oaks, CA.

[35] Petersen, R. D., & Valdez, A. (2005). Using snowball-based methods in hidden populations to generate a randomized community sample of gang-affiliated adolescents. *Youth Violence and Juvenile Justice, 3*(2), 151-167.

[36] Ringle, C. M., S., W., & Will, A. (2005). *Smart PLS – Version 2.0. User Instruction Manual*: Institute of Marketing, Humboldt-Universitat zu Berlin.

[37] Siriluck, R., & Mark, S. (2005). *The impact of web-based service on switching cost: evidence from Thai internet banking.* Paper presented at the Proceedings of the 7th international conference on Electronic commerce.

[38] Straub, D., Loch, K., Evaristo, R., Karahanna, E., & Srite, M. (2002). Toward a theory-based measurement of culture. *Journal of Global Information Management, 10*(1), 13-23.

[39] Straub, D. W., Loch, K. D., & Hill, C. E. (2001). Transfer of information technology to the Arab world: a test of cultural influence modeling. *Journal of Global Information Management, 9*(4), 1-60.

[40] Temme, D., Kreis, H., & Hildebrandt, L. (2006). PLS path modeling - A software review. *Computational Statistics & Data Analysis, 48*(1), 159-205.

[41] Waliczek, T. M. (1996). *A Primer on Partial Correlation Coefficients*. New Orleans: Southwest Educational Research Association.

[42] Weill, P., & Vitale, M. R. (2001). *Place to space: Migrating to eBusiness Models*: Harvard Business School Press.