

Cultural impact on e-service use in Saudi Arabia

PhD thesis

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2013

Statement of original authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

.....
Majid Saad A Aldraehim



6th June 2013

Acknowledgements

First I thank the Almighty Allah in helping me finishing the thesis, this work would not be finished without the success he granted me.

Second, my sincere gratitude to my supervisory team: Prof. Sylvia L. Edwards, Dr. Jason Watson, and Dr. Taizan Chan for their incredible support during my study.

A very big thank you is said to my parents for their continuous prayers for me, and their patience on my awayness. The same is said to all of my family; my sister and my brothers.

Sincere thanks also to my wife Mai and my children Elias and Aleen for their understanding and great support for me to get through this stage of my life. Thanks indeed for everything you did.

The unknown soldiers deserve many thanks too. My friends, PhD colleagues, my sponsor: the Saudi Shura Council, and the Saudi Arabian Cultural Mission in Canberra. Thanks also to Queensland University of Technology for providing encouraging academic, technical, and even social environments.

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Refereed Conference Papers:

Aldraehim, M., Edwards, S. L., & Watson, J. (2012). *Cultural Impact on e-service Use in Saudi Arabia: Results from Focus Groups*. Paper presented at the 2012 Ninth International Conference on Information Technology - New Generations, Las Vegas, Nevada USA.

Aldraehim, M., Edwards, S. L., Watson, J., & Chan, T. (2012). *Cultural impact on e-service use in Saudi Arabia: Results from questionnaire*. Paper presented at the International Conference on Information Society (i-Society 2012), London, United Kingdom.

Aldraehim, M., Edwards, S. L., Watson, J., & Chan, T. (2013). *Cultural impact on e-service use in Saudi Arabia: The need for Service Oriented Culture*. Paper presented at the 19th American Conference on Information Systems (AMCIS 2013), Chicago, Illinois, USA.

Refereed Journal Articles:

Aldraehim, M., Edwards, S. L., Watson, J., & Chan, T. (2012). Cultural impact on e-service use in Saudi Arabia: The role of Nepotism. *International Journal for Infonomics (IJI)*, 5(3/4), 655-662.

Aldraehim, M., Edwards, S. L., Watson, J., & Chan, T. (2012). *Cultural impact on e-service use in Saudi Arabia: Results from questionnaire* has been selected to be published as an extended version of the paper in the International Journal for Infonomics (IJI), Volume 5, Issues 3/4, ISSN: 1742 4712 (Online), <http://www.infonomics-society.org/IJI/>.

Abstract

Culture is mentioned as an impediment to information technology (IT) adoption and usage by many researchers and is especially a major factor in non-Western countries that place a high value on strong interpersonal relationships in business. This research examined the cultural factors that play a part in the adoption or lack thereof of the adoption of e-services in Saudi Arabia. There are many principles that form the basis of Saudi Arabia's culture which are based, firstly, on religion, then on the tribal system. Religion, kinship and tribal systems still impact on the individual's place in society and the success or failure of new technologies in everyday life. In fact, the tribal system and the nepotism that it engenders have a major impact in the work place (Al-Shehry et al., 2006; Hofstede, 1998), as it has been found to have a role in some business practices within the organisation (such as recruiting, rewarding, and prompting relatives), or in dealing with external customers if any (e.g. giving a customer from the same tribe a priority over others). Indeed religion, family, and national traditions often negatively affect the acceptance of new innovations. The Arab culture stresses the importance of home and the traditional nature of this has an influence on the adoption of new technologies (Hill et al., 1998).

A unique feature of IT that distinguishes it from other domains is its flexibility, which can result in similar products being implemented in various forms and for different functions in different organisations (Cooper, 1994). 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 (Straub et al., 2001). 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 modernisation and technological development.

This study uses a mixed-method approach to answer the following question: To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? Cultural theories, dimensions, and models previously acknowledged were identified in the literature. Then three phases of data collection were used: two qualitative

approaches (individual interviews and focus groups) and one quantitative approach (questionnaire) with an aim to identify elements of Saudi culture that affect e-service use, and develop a framework of these cultural values in the Saudi context.

The results from the qualitative phase revealed four Saudi cultural values that have not been considered to date. These four are: Nepotism, the fear of a lack of Interaction with other Humans, a lack of Service-Oriented Culture, and a lack of a Employee Commitment.

Hypotheses were proposed to quantitatively test the impact of those four values on the Technology Acceptance Model (TAM). Since TAM has already been extensively used in the literature (Lee et al., 2003; Bagozzi, 2007; Voros and Choudrie, 2011; Cardon and Marshall, 2008; Venkatesh and Bala, 2008), we used it to test the operationalisation of the values. A statistical model was constructed with three sub-models, each of which was underpinned by the hypothetical research model (main model). Results provided proof of the hypotheses, in that almost all were found to be consistent with our assumptions.

There are many organisations throughout the world that have failed to successfully implement e-services, especially in developing countries. Culture has been widely addressed as a reason behind this. However, based on our review to the literature, values that constitute this culture have not been previously examined. This study has identified four Saudi cultural values that negatively impact on e-service use by employees in Saudi organisations. These factors have not been previously considered, and if they are considered in the future, they will inform and assist both researchers and organisations, providing a solid framework to use in order to understand this complex phenomenon in either research or business contexts. Although culture is rapidly changing (Straub et al., 2002; p.20), researchers can validate those four values and test their impact on different settings (e.g. other comparable countries or systems). Organisations, on the other hand, should be aware of the cultural barriers and acknowledge the presence of those values to better achieve successful engagement by their employees in e-service adoption and use.

Chapter 1: Introduction

1.1 Chapter Introduction:

The aim of this chapter is to provide an introductory overview of the research. It begins by backgrounding the research, defining the research terms, positioning the research problem, clarifying its purpose and significance, stating the research question, and then provides an overview of the methods and the justifications for the same, and explains the research phases. Finally, a summary of the whole thesis is presented in order to construct a comprehensive overview of the research.

1.2 Research Background:

Information and Communication Technologies (ICT) have attracted the attention of governments in the last decade or so. Some have taken an initiative in adopting these technologies while others were hesitant. In order to explore our research context, which is Saudi Arabia, we need to introduce its specific context and its value systems.

Saudi Arabia has a unique position in the world in that it is a place of pilgrimage for Muslims around the world and a source of oil for most of the world. In an attempt to be a competitive in all areas of national life in an increasingly global environment, Saudi government proposed the National Communications and Information Technology Plan (NCITP) in 2004 (MCIT, 2005).

The plan consists of a long-term vision for ICT in the Kingdom for the next twenty years plus a five-year plan that projects the long-term vision for the first five years of the plan. The plan is composed of seven general objectives in addition to a set of sixty-two implementation policies and twenty-six specific goals and ninety-eight projects. The NCITP has been prepared through direct participation of a group of specialists belonging to various governmental, academic and private sectors. In addition, workshops were conducted in preparing the plan (MCIT, 2005; p.2).

In a step toward commencing the plan implementation, the Saudi Arabian e-Government Program was established in 2005. *Yesser*, an Arabic word that means “make things easier”, was chosen as a slogan to this program. *Yesser* plays the role of

enabling the use of e-services in Saudi Arabia. It reduces bureaucracy as much as possible, promotes centralisation in e-services use while promoting the maximum level of coordination between government departments. It was launched with the following objectives (Yesser, 2009):

- Raising the public sector's productivity and efficiency.
- Providing better and more user-friendly services for individual and business customers.
- Increasing return on investment (ROI).
- Providing the required information in a timely and highly accurate fashion.

In 2006, Saudi Arabia's King Abdullah approved three billion Saudi Riyals in his budget to implement the first five years of the plan (Yesser, 2008; p.5). In 2009, Saudi Arabia has achieved the 58th place compared to the 105th place in 2003 from 192 countries were included in the United Nations e-Government readiness (Yesser, 2009; p.44). Yet, Yesser has acknowledged insufficient participation by some public sector organisations due to cultural factors and faces challenges in the implementation of the plan (Yesser, 2009; p.48).

A nation's culture in general involves the observation of rules, customs, responsibilities, and morals, which are influenced by language, gender dynamics, race, beliefs, geography, work and other factors. All of these aspects influence interpersonal needs. The uses for IT in a nation are also influenced by 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 (Ali, Brooks, and Alshawi, 2008; p.2). Chadhar and Rahmati (2004; p.24) noted that national culture is one of the factors that influences Computer Mediated Communication (CMC).

Culture has become a very important factor in Information and Communication Technology implementation. The cultural sensitivity may cause problems and require organisations to find a practical ways for the implementation of IT. Culture is mentioned

as an impediment to IT usage by many researchers. It is a major factor especially in Eastern countries that differ from the West, as they put much more value on strong interpersonal relationships in business (Siriluck and Mark, 2005; p.12). For example, culture has been identified as a barrier to e-commerce by 62% of 89 small and medium enterprises in 17 countries (Chappell and Feindt, 2000; p.64), and linked at 93.8% as a barrier to IT adoption in construction (Aranda, Stewart, and Stewart, 2005). Merritt (2000) noted that even in highly professional environments such as medicine, airlines etc., cultural barriers that impact on IT adoption still exist (Merritt, 2000; p.299).

The sensitivity to cultural diversity plays an essential role in the success or failure of e-business (Kundi and Shah, 2007; p.7). The unique feature that differentiates IT from other fields is its flexibility, which can result in similar products being implemented with very different forms and functions in different organisations (Cooper, 1994; p.26). 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 (Straub et al, 2001; p.3). 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 modernisation and technological development.

Gargeya and Brady’s (2005) study found that the lack of suitable culture and organisational readiness was the main contributor in the failure of software implementations (Gargeya and Brady, 2005; p.501). The inconsistency between management’s IT aspirations and existing organisational culture can lead to failure of e-services use, and this needs to be well controlled during the introductory phase (Cooper, 1994; p.18-19). It has been suggested that “analysing the impact of a change before its implementation reduces the risk of failure” (Weill and Vitale, 2001; p.33).

There are many principles that form Saudi Arabia’s culture that are based firstly on religion and then on its tribal system. Islam, the official religion also plays a significant role by defining the social manners, traditions, obligations, and practices of society. Kinship and tribal systems still impact on an individual’s place in society and could affect their success or failure, both in traditional and in the new areas of activity. In fact,

the tribal system has a major impact on the work place (Al-Shehry, Rogerson, Fairweather, and Prior, 2006). Al-Gahtani (2007) confirms this by indicating that Saudi Arabia ranks much higher than Western countries in *Hofstede's cultural dimensions*, a measure that includes four factors (Power Distance, Individualism v. Collectivism, Masculinity vs. Femininity, and Uncertainty Avoidance) and is used to determine the organisational culture of a country (Al-Gahtani, 2007; p.682). In other words, being from a certain tribe determines your eligibility for a job promotion, for example, and not your merit. Examples for Hofstede's dimensions in Saudi Arabia are, power distance is correlated with income inequality, individualism is correlated with national wealth, and masculinity is correlated negatively with the percent of women government. Uncertainty avoidance is associated with the legal obligation to carry identity cards (Hofstede, 2001).

Islam is the first element of Saudi Arabia's culture and sets the moral principles and behaviours in its society through the *Koran* (the holy book) and the *Sunna* (the sayings and practices of the prophet Mohammed peace be upon him). See a translated copy of the Koran with notes for more information (Dawood, 2003). The Koran has been a singular force that significantly impacts and acts as a driver to create a common culture and legal system named *Sharia* in Saudi Arabia. Muslims believe that through *Sharia* law, equality is ensured for all regardless of health, wealth or other criteria and that all Muslim communities live as a brotherhood. Family is a highly valued part of this society and its significance can be perceived in the lives of everyone including the Bedouin, the rural, and the urban peoples. In these societies, self-interest comes after family interests (Kabasakal and Bodur, 2002; p.44). The importance of family ties has been emphasised by the Koran and the Sunna. Individuals are expected to sustain good relations with their relatives and provide help when needed. This interdependence in a network of relationships offers security to the individuals through attachment and commitment to their community rather than individualism and privacy. As part of the strong values towards group and family collectivism, community members when in positions of management are expected to behave in a paternalistic manner toward their community and provide employment opportunities and privileges to the in-groups, family members, and relatives of their own and employees. The person in the community in

any position of power is expected to solve the problems of his extended community, like helping to find job opportunities, a place in the hospital for family members or having personal issues attended to by the police (Kabasakal and Bodur, 2002; p.51). Many managers are criticised for being nepotistic and providing privileges to their followers who are totally unproductive, which is regarded as unethical conduct.

An Arab identity is the second element that forms Saudi Arabia's national culture and is a strong factor in the resistance to IT (Straub, Loch, and Hill, 2001; p.8). The key characteristics of Arab culture are fatalism, and a culture of the heart as opposed to a culture of the mind, all within a vertical society. Different from their beliefs, individuals in vertical societies view the self as differing from others along a hierarchy; they accept inequality and believe that rank has its privileges. In general, religion, family, and national traditions often negatively affect the acceptance of new innovations (Hill, Loch, Straub, and El-Sheshai 1998; p.6). Straub et al. (2001; p.10) 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 systems development process and results in unsuccessful approaches to computer use and policy.

1.3 Definitions:

This section defines the two main themes of the research.

1.3.1 Culture:

Definitions of culture vary. In general, culture definitions entail the observation of rules, customs, responsibilities and morals that are affected by range levels of factors such as language, sexual characteristics, race, belief, geography and employment. All of these aspects influence interpersonal deeds (Ali et al., 2008; p.2). The working definition for culture in our study is totally consistent with this concept.

Hofstede defined culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others" (Hofstede and Hofstede, 2005; p.4). Ali et al. (2008; p2) support the definition of culture as the "shared meaning

system". Su and Adams (2005) reported another definition for culture by Hofstede that describes it as "the mental programming-software of the mind" (Su and Adams, 2005; p.237). Culture was viewed by Clark (1990) in McCoy et al. (2007) "as patterns of personality characteristics found among people within the same nation" (McCoy et al., 2007; p.82).

Straub et al. (2002) search the meaning of culture "and consider new ways of conceptualising and measuring it for global information management research by using an alternative theory-based view of culture via social identity theory (SIT)". The SIT proposes that every one is influenced by many cultures and sub-cultures (e. g. ethnic, national and organisational). "Each study would have to establish the most important cultures in each individual's background, the composition of these cultures and then include these different cultures as independent variables in positivist research" (Straub et al., 2002; p.13).

Of significance is the lack of theory for the identification and examination of various proposed sets of cultural beliefs and values. Moreover, there is a link between what culture is held to be and the manner in which it is investigated. Two critical questions frame the theoretical conceptualisation of culture and subsequently the manner in which it is investigated. First, is culture a structural phenomenon with properties irreducible to individuals, or is culture the sum of properties of individuals that constitute the cultural group? The answer to this question has significant implications for the level of analysis. Second, can culture be characterised by universal dimensions or should it be understood in terms of the unique characteristics by a particular conceptualisation of culture? Is there a way to define culture so as to avoid some of the complicating factors that have historically led to ambiguity and uncertainty in our research findings? Or are we destined to remain utterly vague about a concept that it self seems to resist precise definition? (Straub et al., 2002; p.18)

Reflecting on the previous quote, the socio-cultural system and the individual system are two theoretical frameworks likely to be studied when researchers investigate cultural aspects (Ali et al., 2008). Two popular theories represent this framework.

Hofstede's theory, that assumes every single person has both individualist and collectivist tendencies and the difference is individualist attitudes, principles and behaviours in one culture being probably higher than in others (Su and Adams, 2005; p.237). The nation-state that Hofstede built his model upon is a relatively recent phenomenon and expected to change over time. The idea that each country has its own distinct culture is debatable. Many nations have more than one culture and the same cultural group may live in different countries. "Thus, not only have the physical boundaries of many nation-states changed in recent years, but so has the ethnic and racial mix within them" (Ali et al., 2008).

The second theory is proposed by Hall and contains two dimensions: high and low context culture. High context cultures adopt new technologies only if they fully understood its technical aspects in depth and are certain that there are no threats expected, while low context cultures feel comfortable in dealing with new technology. People in these cultures feel uncomfortable working with old systems for a long time and prefer to use new things (Chadhar and Rahmati, 2004; p.27).

1.3.2 e-service:

There is still a misconception of terms such as e-business, e-commerce, e-government, and e-service (Arranda et al., 2005). Scholars consider different aspects when defining a term or a phrase. These aspects are mainly influenced by discipline and context of work. In our research context, there are many aspects that influence our definition of e-service. The most important aspect is that there are three types of business relationships:

- Business to customer/consumer (B2C), which is the use of ICT to enable forms of commerce between a company and its customers or consumers;
- Business to business (B2B), which is the use of ICT to enable forms of commerce between a company and its suppliers;
- Intra-business, this is the use of ICT to enable communication and coordination between the internal stakeholders of the business.

This research will focus on the first definition of e-service since we plan to study the relationships between the culture of the consumers (Saudi Arabian citizens) and the IT services (e-government services) provided by the Saudi Arabian government. In this viewpoint e-service has a broader context than e-business, while e-business describes the broadest definition of e-commerce (Al-Otaibi and Al-Zahrani, 2004; p.29). When this e-service is provided by the government to mediate its transactions and communications with its citizens, it can be termed as e-government. Rowley (2002) contends that “e-business is a concept that embraces all aspects of the use of information technology in business. It includes not only buying and selling, but also servicing customers and collaborating with business partners, and often involves integration across business processes and communication within the organisation” (Rowley, 2002; p.2).

A general definition of e-government is “the use of information and communication technologies (ICT) in improving the activities and services of government”. The up-take process difficulties of e-government are more than on account of technological issues; it is more concerned with restructuring the organisation and improving the employees’ skills, finding new forms of leadership, and the transformation of public-private partnerships (Zaied, Khairalla, and Al-Rashed, 2007; p.77).

According to Ferran (2006; p.3) the term e-business refers to the process of automating business procedures. This action helps undertake business faster with fewer mistakes. Keoy, Hafeez, and Siddiqi (2006; p.114) define e-business as the application of information and communication technologies to facilitate the execution of related functions like marketing management, strategy leverage, information systems, logistic management, customer relationship management, and human resources management. Jones et al. (2003; p.2-4) define e-business as “business facilitated by the exchange of information across electronic networks. They treat e-business as the utilisation of information and communication technologies to support all the activities of business. E-business is about using the convenience, availability and worldwide reach of ICT to enhance existing business or create new business”. In Aranda et al. (2005), the term e-business is commonly used to describe Internet-enabled systems that provide information, facilitate transactions or provide shared business process. Khalfan and

Akbar (2006; p.284) believe that e-business is a new business method that includes connectivity, transparency, sharing, and integration.

Sharma and Wickramasinghe (2004; p.112) state that the growth, integration, and sophistication of information and communication technologies are noticeably affecting our lives. While e-business is based on a virtual (digital) business process with a virtual agent, and virtual products, traditional business is a physical business process with respect to the three previous components (virtual business process, virtual agent, and virtual products). More definitions for e-business are stated in Al-Otaibi and Al-Zahrani (2004): e-business considers the manner in which business transactions and customer services take place via different sets of Information Technology (IT) mechanisms. E-business intends essentially to give leverage to the relationship between customers and vendors. They represent the traditional way of doing business by the term “reality”, and the electronic way by the term “virtuality” in order to distinguish between them (Al-Otaibi and Al-Zahrani, 2004; p.29).

Dubelaar, Sohal, and Savic (2005) defined e-business as the: “utilisation of networks and near-time interactions to accomplish some combination of six core business goals: empowerment of customers, enhancement of trade, increased business agility, extension of enterprises in a virtual manner, evolution and invention of products and services, and the development of new markets and audiences” (Dubelaar et al., 2005; p.1251). Additionally, “e-business applications are innovative technologies that are strongly influenced by a firm’s technological capabilities as well as the “readiness” of its intended users” (Rapp, Rapp, and Schillewaert, 2008; p.25).

E-business can be defined also as “a system that provides businesses with a platform to connect with customers, business partners, employees, and suppliers via the Internet, extranets, and intranets”. E-business strategy can be defined as “the development and the execution of a plan for a company to do business electronically” (Beheshti and Salehi-Sangari, 2007; p.234).

A comparison between three disciplines (business science, computer science, and information science) made by Baida, Gordijn, and Omelayenko (2004; p.3) with regard to the shared terminology for online services found that many scholars “define e-

services as an Internet-based version of traditional services” (Table 1).

| | Services | E-services | Web services |
|---------------------|----------------------------|---|--|
| Business science | Well-defined | Core interpretation is shared; interpretations vary in the extent of generalisation | Rarely used, definition Borrowed from computer science |
| Computer science | Divergent interpretations | Technical or business definition | Well-defined |
| Information science | Mostly business definition | Business or technical definition | Well-defined |

Table 1: summary of service terms usage adopted from Baida et al. (2004; p.8)

For the purpose of this study the definition by Jones et al. (2003) best represents the approach taken by this study; they define it as “business facilitated by the exchange of information across electronic networks. E-business is about using the convenience, availability and worldwide reach of ICT to enhance existing business or create new business” (Jones et al., 2003; p.2). However, we will continue to use other terms like e-business, e-government to express the use of ICTs in the organisational context.

1.4 Research Problem:

As e-services are relatively new in Saudi Arabia, measuring its use is a way to assess the success and predict the reaction of the potential users (Davis et al., 1989). In addition, measuring usability helps “establishing not only specific IT choices, but a strategic IT direction as well” (Connon, 2007). Based on an extensive review of the literature, culture has been widely addressed as a reason behind the failure of ICT use (Ali et al., 2008; Al-Shehry et al., 2006; Alwabel and Zairi, 2005; Aranda et al., 2005; Chadhar and Rahmati, 2004; Chappell and Feindt, 2000; Davison, 2002; Kundi and Shah, 2007; Merritt, 2000; and Straub et al., 2001). Most of these studies have dealt with culture as one component in the resistance to e-services use. However, there is a gap in our understanding of what values comprise culture specifically in the Saudi Arabian context. This research aims to identify the impact of cultural values on e-service use in Saudi Arabia that have not been studied sufficiently in the literature.

1.5 Research Purpose and Significance:

The research aims to identify the cultural values that negatively impact on e-service use

in Saudi Arabia. Furthermore, the target is to identify the set of cultural values that have not been identified or discussed in-depth in the literature. The purpose is to provide a framework of these values that can help technologies designers design and develop culture-specific approaches to e-services in Saudi Arabia.

The study's significance derives from the scarcity of studies that deal with this subject area. Moreover, the study considers the influence of Saudi Arabia's culture to determine its effect on business practices in regard to e-services use.

1.6 Research Question:

This study aims to answer the following question: To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how?

1.7 Research Method overview:

Mixed methods, as a new form of research method, has been established in the late 1980s (Creswell and Clark, 2011; p.20) wherein "a mixed-method research design" encourages researchers to collect and analyse their research data quantitatively and qualitatively in one or more than one study to better comprehend a research problem. It is more about the integration and interconnection of the whole research rather than only collecting qualitative and quantitative data (Creswell, 2012; p.535). Mixed methods research, in general, allows researchers to utilise every single available method to treat a research problem. Further, it presents the data in forms of "both numbers and words" which make the research outcomes more sensible (Creswell and Clark, 2011; p.13). It also allows the researcher to produce a new instrument as one of the potential products of the research process (Creswell and Clark, 2011; p.89). However, like other research methods (qualitative and quantitative), mixed-methods is not perfect. Indeed it "is not the answer for every researcher or every research problem" (Creswell and Clark, 2011; p.13). Time, resources, and skills required are challenges when undertaking mixed methods research (Petter and Gallivan, 2004; p.9, Creswell and Clark, 2011; p.13).

One of the six mixed-methods designs proposed by Creswell (2012) that is applicable for our current study is the exploratory sequential mixed-methods design. According to Creswell, "researchers use this design when existing instruments, variables, and

measures may not be known or available for the population under study” (Creswell, 2012; p.543).

Researchers describe mixed methods as the “best and most fully integrated” method to answer their research enquiries (Johnson and Onwuegbuzie, 2004; p.18). Yet the rationality behind using mixed methods research is more than this. Generally speaking, a researcher undertakes a mixed-methods study “when both quantitative and qualitative data, together, provide a better understanding of the research problem than either type by itself” (Creswell, 2012; p.535).

A very basic justification for adopting mixed methods design in this study is to collect quantitative data in a second phase in order to test the qualitative explorations of the first phase of the study. This is considered valuable in providing additional insights into the research problem (Creswell, 2012; p.548). Another justification to use mixed-methods research (Greene, Caracelli, and Graham, 1989; p.259, and Creswell and Clark, 2011; p.62) is that a deep exploration of cultural values is needed to understand its impact on e-service use in Saudi Arabia.

Both qualitative and quantitative methods have their advantages and disadvantages; it has been recommended that researchers should use them both in order to obtain more reliable data (Yauch and Steudel, 2003; p.465). Although using the qualitative approach consumes more time, the capability of understanding the studied phenomena goes deeper and wider (Yauch and Steudel, 2003; p.472, and Johnson and Onwuegbuzie, 2004; p.20). One of the major advantages that outweigh the use of mixed over the single method is its comprehensiveness (Morse, 2003; p.195). The researcher is able to achieve generalisation through quantitatively investigating large populations. In addition, the implementation of qualitative methods that concentrate on the reasons behind the phenomena ensures an in-depth understanding of the research problem (Bazeley, 2004; p.5). One other advantage of the qualitative method is that researchers could modify the research scope to address the changes that they encounter while undertaking the study (Johnson and Onwuegbuzie, 2004; p.20). Furthermore, qualitative methods, as a result of “its capability for continuously monitoring feedback from the respondent”, can balance for any limitations that could be part of the

quantitative method. Last but not least, qualitative researchers are more able to create and test a new theory than quantitative researchers (Dillman, 1978; p.60). Merging more than one method enables the researcher to deeply understand the scope and accomplish the research objectives “more quickly” (Morse, 2003; p.189; and Yauch and Steudel, 2003; p.477).

To conclude, of the available methods, this study will not be able to rely on only one method as none will be able to gather worthwhile data to understand the existing cultural barriers. The aim of the mixed-methods is to increase the strength of the research and reduce the shortcomings that will possibly occur if only one method was used. Therefore, the mixed-method approach is adopted as the best approach to uncover the deep cultural values that impact on e-service use in Saudi Arabia. Furthermore, as this research went through several phases, mixed-methods provided the ability to use one phase’s findings to initiate the next phase (Johnson and Onwuegbuzie, 2004; p.15-22). Using both qualitative and quantitative in one project in a mixed-method approach (Morse, 2003; p.190) does not necessarily mean the solution to all methodological problems; in fact, it creates problems outside of applying just one method (Bazeley, 2004; p.2). However, cultural values that have been identified by qualitative and quantitative approaches are more comprehensive than those that have been identified by using one approach. In brief, “all methods have limitations and biases” (Yauch and Steudel, 2003; p.478). However, applying more than one method can positively contribute to these problems (Greene and Caracelli, 1997; p.7).

1.8 Research Phases overview:

Conducting the research by phasing it out in many stages increases its strength. Starting the study by collecting qualitative data, the researcher can investigate the initial research problem, “identify themes, and design an instrument” (Creswell, 2012; p.543). Testing this instrument quantitatively is the next step to being able to generalise the qualitative data findings. Usually in the sequential design, researchers begin the study firstly with qualitative data collection like individual interviews with a small sample, then in the second stage use a quantitative method such as a questionnaire with a large, randomly selected number of participants. The following paragraphs outline each phase of the research.

In the first phase we conducted individual interviews. The aim of conducting these interviews was to identify the preliminary success/failure key issues for e-business implementations. These key issues helped to create a checklist of elements to enable businesses to determine the appropriate model for the implementations. These elements were to be tested in the next step in order to propose an effective e-business implementation model in Saudi Arabia.

Insufficient conclusion was drawn from the first phase. Therefore we conducted focus groups in the second phase. The aim of the focus groups was to obtain more in-depth information to understand the uncovered elements of Saudi Arabian culture from the literature, in order to develop a framework of cultural values that affect e-service use in Saudi context. According to Morgan (1997; p.25) focus groups have been recommended as a means to construct surveys or questionnaires since 1986, and there are three things that focus groups can contribute to the questionnaire:

- Capturing all the domains needed to be included in the questionnaire.
- Determining the dimensions that make up the domains.
- Item wording.

The third and last phase was a questionnaire. This study aimed to measure the cultural impact on e-service use in Saudi Arabia. Quantitative methods “appear to be better delineated and more focused than qualitative” (Morse, 2003; p.192), but they are less likely to be used alone. Thus, our use in the previous phases for qualitative methods is followed now by a quantitative questionnaire in order to strengthen the outcomes. As a result of the focus groups described earlier, and since most of the cultural studies conducted in Saudi Arabia used the existing global cultural indices (e.g. Hofstede, GLOBE ... etc.), culture here was measured with special attention to the Saudi context using new constructs. However some of the questionnaire items were already obtained from the literature (Loch, Straub, and Kamel, 2003, Gainer and Padanyi, 2005, Hartline, Maxham, and McKee, 2000, Lyons, Duxbury, and Higgins, 2006, and Buelens and Van den Broeck, 2007). Those items needed to be examined in a wider population in order to confirm and build the final framework of cultural values. This method has been

selected to confirm the research has identified the critical cultural values that impact on e-service use in Saudi Arabia and be able to generalise it.

1.9 Chapter conclusion:

The aim of this chapter was to introduce readers to the research. The seven sections presented here explaining the research background, definitions, problem, purpose and significance, question, methods, and phases, achieve this. Following is a more comprehensive overview of the thesis research.

Chapter two is the literature review. It is compromised of two sections: one about culture and one about the Technology Acceptance Model (TAM) as they are the major broad themes of the research model.

In chapter three, the literature on the research methodology is reviewed and a justification for the selected method is provided. The research plan and approach are discussed in separate sections within this chapter. In line with the research approach, the research phases are described individually with the rationality behind them and their procedures.

Chapter four presents the findings. It starts by presenting the qualitative phase (individual interviews and focus groups) results. Then it presents and discusses the results of the questionnaire along with the associated statistical procedure.

In chapter five, discussion of the qualitative and quantitative phases results is provided.

Chapter six summarises our research, discusses its limitations and recommendations, and provides the concluding statement of the thesis.

Chapter 2: Literature Review

2.1 Chapter Introduction:

Purpose and scope, structure and content are discussed below in order to introduce this chapter to the reader.

2.1.1 Purpose and Scope:

A critical issue that can impact the successful implementation of new technologies in organisations is employees being unwilling to use the new technology. (Venkatesh and Bala, 2008; p.273). Much research has been done to investigate reasons behind this. Since the research objective is to identify the cultural impact on e-service use in Saudi Arabia, and the focus is “environmental” rather than “technical” issues to e-service use, the literature review here will focus on impediments arising from culture (Arranda, Stewart, and Stewart, 2005). Of course, I will touch base on other barriers to e-service use that are not in the scope in order to obtain a comprehensive review of the literature.

2.1.2 Structure and Content:

This chapter starts by introducing the theme of the literature, and clarifying its purpose and scope. In order to obtain a comprehensive overview of the research context, this chapter is divided into four major sections: e-service, culture, Critical Success Factors (CSFs), and the Technology Acceptance Model (TAM).

The first section includes the current practices of e-service in Saudi Arabia, and challenges facing e-service adoption. The second section will discuss the cultural literature with focus on Saudi Arabian culture to illustrate the historical issues related to culture’s impact on information systems adoption. The third section reviews the literature of Critical Success Factors (CSFs) as a way to guide the investigation of the impact on e-service use. Finally, the Technology Acceptance Model studies will be reviewed to show whether applying this model is applicable for our research context. Finally, the conclusion will provide a summary of the literature reviewed and identify the gaps, if any.

2.2 e-service:

In the 1990s, a huge effort was made to find easy, efficient, and secure ways of communication. The Internet facilitated this effort through making electronic service a popular means of communicating and conducting business (Al-Alawi and Kuzic, 2007; p.471). As a result, many organisations have adopted these means to respond to business trends. In addition, modern information technologies are becoming an essential element of competitiveness, and there is no place in the competition for organisations that do not adopt them early enough (Al-Otaibi and Al-Zahrani, 2004; p.34). In fact, using electronic services “has become the medicine for every type of government” (Kim, Pokharel, and Lee, 2007; p.349).

There is generally a vision and objective behind electronic services (Rowley, 2002; p.208). The vision is to improve customer service, and the objective is to establish a position in a new marketplace. It is important to be selective with respect to the objectives. They should be SMART: Specific, Measurable, Achievable, Relevant, and Timely (Rowley, 2002; p.208) in order to achieve these results.

According to Alwabel and Zairi (2005; p.22) the major benefit of using e-service is not in replacing the traditional communication systems such as telephone and fax, but in re-engineering and improving the whole business process of an organisation which ensures competitiveness with its business partners and has other benefits such as cost savings, time savings, connection improvements, quality improvements, strategic improvements and access to new markets (Jones, Beynon-Davies, and Muir, 2003, p.4).

2.2.1 Current practices in Saudi Arabia:

There are number of aspects related to the environment in which all businesses function, some of which directly impact the use of electronic service like customer expectations and sophistication, competition, globalisation, changing role of government, channels, and technology (Rowley, 2002; p.218). Kalakota and Robinson (2001) stress the importance of understanding customer value and relationship trends when focusing on the business direction (Kalakota and Robinson, 2001; p.391).

This research will summarise some of the current situation indicators in Saudi Arabia

and some other Arabic and Islamic countries that share similar cultural values. The awareness level on e-service in these countries is still low (Al-Alawi, Kuzic, and Chadhar, 2005; p. 612). Many Saudi Arabian companies and organisations in different fields still deem information technology as an optional rather than as an essential feature (Al-Otaibi and Al-Zahrani, 2004; p.34). Statistics show that more than 60% percent of the Saudi Arabian population is younger than 25 years. However, top management positions are often held by people older than 40. There are still a large number of employees that do not know how to use computers (Al-Shehry et al., 2006). Some Saudi people think e-service is just an automation process for business and is a simple matter of converting current business practices using technology. However, the technology aspect is only a small factor in adopting new innovations and culture is a bigger aspect (Straub et al., 2001).

“Although developing countries are eager to adopt new technologies, the process of adoption has been slow and the current utilisation of IT is far below that achieved in industrialised countries. ... While finances were not a problem for the affluent countries of Saudi Arabia and Kuwait, they have historically used far less than their available computing capacity” (Straub et al., 2001; p.3).

Developing countries frequently have huge gaps between planned project design and the real design known as “design-reality gaps”. The following quotations from interviews conducted by Al-Shehry et al. (2006) illustrate the current situation in Saudi Arabia:

"In my opinion we have sometimes a beautiful plan and strategy but, how we can see this plan implemented in real life. I can see that we have gap between planning and implementation".

“If we are doing our work correctly there is no need for e-government. The problem is that we use this technology to overcome our problems in reality especially in the public sector where the organisations do not do their work effectively in traditional ways”.

Customers see the web as a way to supplement and improve relationships, and do not

appear to see it as a replacement for the traditional ways (Siriluck and Mark, 2005; p.15). In fact, “customers do not want technologies, they want solutions” (Colyer, 2000; p.571) in order to help with the current business process complexity. Additionally, there are some problems in the public sector in the Middle East that need to be fixed before carrying out e-government implementations (Al-Shehry et al., 2006).

Alsalloum (2005) studied the internet adoption in Saudi Arabia and attempted to answer “if there is any relation between the adoption of the internet and the type of company, annual revenue, annual budget, size of the company, and the availability of a computer department in these companies?” Alsalloum found there is a connection between each of these factors and IT acceptance. In fact IT adoption depends mainly on the firm’s size and funds. These factors were measured using a questionnaire containing 19 questions, randomly targeting all companies located in Riyadh city. The company ownership factor results show that the firms most likely to adopt IT respectively are: firms that are owned by shareholders, and the mixed-owned firms (government and public). The majority of the remaining private or public companies were considered non-adopters. Two third of organisations that have more than 500 employees have a good chance of adopting IT. The percentage in organisations that have less than 50 employees is about 24% (Alsalloum, 2005; p.6).

The Saudi Arabian government has attempted to emphasise the significance of e-government implementation for improving services and providing access to their targeted audiences. However, there is no sufficient replication of this especially in public sector organisations and this is obvious when customers navigate a ministry website. Table 2 illustrates that at the time of their study, Abanumy and Mayhew (2005) found more than two thirds of the Saudi ministries have not even had a website (Abanumy and Mayhew, 2005; p.2).

| Stage reached | Assessment elements | Number | Percent |
|-------------------|--|--------|---------|
| No presence | No official website available | 8 | 38% |
| Emerging presence | e.g. agency name, agency phone number, address, operating hours, general frequently asked question | - | - |
| Enhanced presence | e.g. organisational news, publication, online policy (security, privacy) | 3 | 14% |
| Interactive | e.g. officials’ e-mail, post comment online, simple | 10 | 48% |

| | | | |
|------------------------|--|---|---|
| presence | two-way communication, download organisation's form | | |
| Transactional presence | e.g. e-form, e-payment | - | - |
| Seamless | Full integration across organisation | - | - |

Table 2: online presence for Saudi Arabian ministries websites (Abanumy and Mayhew, 2005; p.3)

The study conducted by Abanumy, Al-Badi, and Mayhew (2005) showed that only 13 out of 21 Saudi Arabian ministries have an online presence. They examined the progress made in e-government in Saudi Arabia and Oman by adapting the United Nation's e-government stages model. Also investigated the assessment of usability of e-government websites on these two countries with a focus on particular elements such as "adherence to culture of the target audience, information quality, website performance, design consistency and page layout". The results of this study indicated that less priority has been given to these issues in both countries and that could explain the delay in their web presence (Abanumy et al., 2005; p.102).

Most recently, Al-Nuaim (2011) evaluated the Saudi ministries' web sites using "a citizen-centered e-government approach" (Al-Nuaim, 2011; p.1). This approach has been built based on three aspects: services types, web sites features, and the Accenture and European frameworks. The developed framework has five stages that can distinguish the actual presence of e-government services of a web site from another. Stage one considers the web presence, while stages two and three concentrates on the interaction whether takes one-way or two-way, and finally stages four and five examines the transaction and integration respectively. Results of this study showed the following: one ministry out of 22 ministries (4.6%) had no presence at all, 8 ministries (36.4%) had lacked the basic requirements for an e-government web site, 10 ministries (45.4%) were in or partially in stage one, 3 ministries (13.6%) only reached stage two, while the remaining stages have not been reached yet (Al-Nuaim, 2011; p.6-9).

In conclusion, the Saudi government is paying a great deal of attention to the use of information technologies and supporting this initiative financially and logistically. Also as will be shown in Chapter four, citizens are enthusiastic and looking for those services to be implemented. However, organisations in general and the public sector specifically, are not giving the same attention and enthusiasm to use e-services.

2.2.2 Challenges:

Challenges to the use of ICTs are widely discussed in the literature. The method of discussing them differs from one study to another. Corbitt's study looked at these challenges from two different angles: internal and external (Kong, 2003; p.56). Alwabel and Zairi (2005; p.7) have classified those under five categories: dominant, organisational, environmental, communication, and technological. Arranda et al. (2005) investigated the challenges with accordance to the business sector, whereas Jones et al. (2003) believe that there are "perception and reality" obstacles to the use of ICTs. They also add that e-business obstacles can be classified in two ways: by business type and by time of incidence (Jones et al., 2003; p.1).

Barriers to e-service behave in particular ways depending on the nature of the business, and hence the importance of contextualising barriers by sector, activity, organisational and personal profiles has been highlighted (Arranda et al., 2005; Keoy et al., 2006; p.115; Kim et al., 2007; p.351; Kundi and Shah, 2007; p.2). Al-Otaibi and Al-Zahrani (2004) reported the nature of business and business environment as two factors that should be considered to achieve a successful use of e-service (Al-Otaibi and Al-Zahrani, 2004; p.31).

The impediments for e-service use have been emphasised by research in non-developed countries. The impact of various impediments related to the lack of funds was assigned as "major determinants of e-business success" (Al-Shehry et al., 2006; Cheng et al., 2001; p.68; Jones et al., 2003; p.18; Khalfan and Akbar, 2006; p.296; Kim et al., 2007; p.353; Kundi and Shah, 2007; p.2; Taylor and Murphy, 2004; p.285). It has been identified based on quantitative and qualitative analysis of e-commerce experience by 64% of 89 small and medium enterprises (SMEs) in 17 countries (Chappell and Feindt, 1999). In addition, nine out of ten studies reviewed by Jones et al. (2003; p.9) identified lack of financial resources as barriers to e-business development. This study will look at different factors (e.g. human, organisational) but not at technical related factors.

Strategy has been identified as a challenge to ICT implementation (Jones et al., 2003). Further, it is one of the three most regularly cited reasons for project failure (Kalakota and Robinson, 2001; p.454). Alwabel and Zairi (2005) reported strategy twice under

two different groups of factors influencing the implementation of e-commerce among financial services in Saudi Arabia. Dominant factors that make it difficult for e-commerce to be implemented are strategic goals and a customer-centric approach. Organisational factors that are related to the organisational structure are quality orientation and e-commerce implementation strategy (Alwabel and Zairi, 2005; p.7) that emphasise the importance of strategy consideration.

Al-Shehry et al. (2006) contend that the adoption process often encounters major organisational issues including strategy. Many companies have applied e-business without recognising the associated strategic operational and behavioural effects. As a result, they have encountered operational and financial failure (Keoy et al., 2006; p.114). Poor business routine and repeat patterns of existing practices are often indicators of failure. Research conducted by the Gartner Group in 2001 shows that only 40% of surveyed firms had a clearly articulated and documented e-business strategy that was integrated with their enterprise strategy (Dubelaar et al., 2005; p.1253).

The process of making e-business into reality contains strategy as one of the three key elements (Kalakota and Robinson, 2001; p.388). Yet the way some e-business strategies are implemented are more effective than other factors. Kong (2003) suggests that the implementation success relies on the balance of power between the parties' involved (Kong, 2003; p.55). A view proposed by Weill and Vitale (2001) who recommend "analysing the impact of a change before its implementation reduces the risk of failure" (Weill and Vitale, 2001; p.33).

One big concern associated with e-business for organisations is identifying a suitable strategy for its implementation (Al-Alawi et al., 2005; p.612). Moreover, many organisations in Saudi Arabia face the problem of insufficient management support and lack of IT strategic planning (Al-Shehry et al., 2006). Designing an appropriate strategy was one of the major challenges for e-government development and implementation in developing countries (Zaied et al., 2007; p.77). Gargeya and Brady's (2005) study found that the lack of organisational readiness was the main contributor to the failure of software implementations. Consequently a proper strategic plan should be put in place to overcome this barrier (Kundi and Shah, 2007; p.7).

The lack of planning and the absence of assessment and evaluation phases in Arabic organisations are interpreted as a result of the traditional values. While some western techniques are widely used in organisations, some of them are not applicable, e.g. “360° performance evaluation, as it is unacceptable for subordinates to evaluate their superiors in this culture”. The duality between East and West, tradition and modernity in the Arabic societies creates different expectations from leaders with regard to in-group relationships and performance and enhancement on the other hand (Kabasakal and Bodur, 2002; p.51).

ICTs implementation requires basic foundations like technology awareness. Thus implementation process seems to be a big issue for developing countries (Kim et al., 2007; p.353; Al-Alawi et al., 2005; p.612). For example, the lack of awareness of e-business opportunities is one of the top ten challenges to e-business in Dubai’s development industry (Al-Alawi and Kuzic, 2007; p.473), and one of barriers that inhibit the digital implementation (Taylor and Murphy, 2004; p.285).

In their study of four different groups (SMEs, suppliers, contractors, and consultants) within the construction industry, Aranda et al. (2005) found the lack of e-business awareness to obstruct the implementation process (linked at 93.8% across the four groups). Jones et al. (2003) contend that the lack of knowledge and understanding of perception factors, like awareness of e-business benefits, is one of the two main barriers to e-business (Jones et al., 2003; p.18). In fact, seven out of ten studies reviewed by Jones et al. (2003, p. 9) identified awareness as a barrier to e-business development..

Al-Somali, Gholami, and Clegg (2009), as an indication to the importance of technology awareness, classified factors influencing online banking acceptance and usage according to the awareness of e-services availability and its advantages (Al-Somali et al., 2009; p.2). One of the main reasons for lack of implementation of e-government in “the least developed countries” is the lack of technology awareness. People in high positions, policy makers, managers, and high level officers concentrate on buying the hardware even without knowing how to use it and being aware of the benefits of their use (Kim et al., 2007; p.351). In Khalfan and Akbar’s (2006) view, there are many perceived managerial factors that impede the adoption of e-commerce in Oman. One of these

factors is “limited technological knowledge” which is also because of the rapid developments within Information Technology (Khalfan and Akbar, 2006; p.296).

Lack of commitment to technology use is among the most regularly cited factor for IT project failure (Kalakota and Robinson, 2001; p.454; Kim et al., 2007; p.353; Cheng et al., 2001; p.68). It was found to be true regardless of the size of the organisation or the kind of activities the organisation engaged in (Aranda et al., 2005). Consistent with this was a study conducted in Nepal that found a lack of commitment as the main impediment to e-government implementation (Kim et al., 2007; p.351). Similarly in Saudi Arabia, it was found to be one of the dominant factors influencing the use of e-commerce among financial services (Alwabel and Zairi, 2005; p.7).

The lack of organisational capability and resources is another major organisational challenge to e-government initiatives (Al-Shehry et al., 2006; Al-Alawi et al., 2005; p.612; Chappell and Feindt, 1999; Jones et al., 2003; p.9; Keoy et al., 2006; p.115; Siriluck and Mark, 2005; p.12). More specifically, it is difficult to find IT-qualified staff (Al-Alawi et al., 2005; p. 612) due to the shortage of an adequately trained workforce (Al-Shehry et al., 2006).

Al-Otaibi and Al-Zahrani (2004) contend that to achieve a successful e-service implementation the internal resources availability should be considered (Al-Otaibi and Al-Zahrani, 2004; p.31). Organisational failure can happen also because of unqualified managers and employees. The up-take process of e-services requires extra investment and resources either in hardware or software and training as well. Otherwise this would be a critical obstacle to the ongoing development of e-service implementation (Keoy et al., 2006; p.116).

According to Kim et al. (2007) there is a need for skilled manpower to implement e-government, and developing countries do not always have them (Kim et al., 2007; p.351). The lack of qualified human resources and insufficient training are major problems faced by many organisations in developing countries concerning the use of new Information Technologies (Al-Alawi et al., 2005; p.612; Al-Shehry et al., 2006; Jones et al., 2003; p.1). Nine out of ten studies reviewed by Jones et al. (2003) identified the lack of expert skills and training as barriers to e-service development (Jones et al., 2003;

p.9). Employee development was one of the seven major challenges for e-government development and implementation in most developing countries (Zaied et al., 2007; p.77). Hence, the use of e-service requires extra investment and resources in training. Otherwise it would be an obstacle to e-service use (Keoy et al., 2006; p.116).

Time is a challenge (Chappell and Feindt, 1999; p.8; Jones et al., 2003; p.18) also and in the Al-Alawi et al. (2005) study, all participants stated that the implementation process is highly time-consuming. Another challenge is the absence of collaboration between organisations involved in the implementation of e-services (Al-Alawi et al., 2005; p.612; Al-Shehry et al., 2006).

Challenges can also be derived from many factors related to the lack of legislative support (Al-Shehry et al., 2006; Jones et al., 2003; p.18; Keoy et al., 2006; p.115; Siriluck and Mark, 2005; p.12; Taylor and Murphy, 2004; p.285; Zaied et al. 2007; p.77). Alwabel and Zairi (2005; p.7) stated that regulatory issues and corporate governance have an influence on the e-commerce implementation in Saudi Arabia. Offline payment is the preferred payment method by some e-services providers because people are reluctant to use online payments for security concerns (Al-Alawi et al., 2005; p.612). Issues of security and privacy were discussed by Keoy et al. (2006) as primary concerns for business activities of any sector involved with financial transactions, which could obstruct the acceptance of electronic banking and payment by the businesses and consumers. The current legal system more specifically in non-developed countries is not strong enough to guarantee protection for those who are involved in e-services (Keoy et al., 2006; p.117). Consequently a proper strategic plan should be put in place to overcome this barrier (Kundi and Shah, 2007; p.7). Malaysian companies are worried about the business law which is not supportive for e-commerce. In addition, insufficient legal protection for Internet transactions was mentioned as one of the top two barriers “56.6 % and 59.3%, respectively”, while in comparison they are “36.5% and 34.3%, respectively” in the United Kingdom (Keoy et al., 2006; p.113).

The outcomes of the education systems in many developing countries were presented as inhibitors of IT diffusion (Al-Shehry et al., 2006; Khalfan and Akbar, 2006; p.296; Kundi and Shah, 2007; p.7). More specifically that “caused by insufficient education into

benefits and applicability” (Jones et al., 2003; p.18) will be reflected later on the businesses performance.

Al-Shehry et al. (2006) have argued that e-service represents a fundamental change and therefore, resistance to its use is expected. Markus (2005) believes that organisational change usually requires sacrifice by targeted employees. For this reason, e-business transformation often meets resistance (Markus, 2005; p.377). This resistance includes:

- Self-interest: fear of personal loss.
- Lack of understanding and trust: there is no idea about the intended aim of change.
- Uncertainty: lack of information about future events.
- Different assessments and goals: targeted people may differently evaluate the situation (South-Western, 2005).

Three reasons have been identified for the resistance of change. Firstly, people resist because of the lack of required skills to use the new technologies. Secondly, workforces in the traditional organisations do not understand the “big picture” and how business can be conducted with the assistance of the new innovations. Finally, resistance by middle and high management occupiers because of newly implemented business models which redefine organisational structures and the power distribution (Wargin and Dobiéy, 2001; p.73). This is supported by Siriluck and Mark (2005) who contend that negative management attitudes can cause resistance to change (Siriluck and Mark, 2005; p.12). Dent and Goldberg’s (1999) study indicates that individuals are not really resisting the change itself but rather may be resisting the loss of status, loss of pay or loss of comfort. Regardless, its two different kinds: passive and active (Cheng, Li, Love, and Irani, 2001; p.75), resistance to change still act as obstacles to ICTs use (Al-Somali et al., 2009; p.2).

As a result of individual differences, there is a conflict between managers that can often emerge during the acceptance process of e-commerce. Some of these differences are derived by different priorities and expectations (Aranda et al., 2005; Khalfan and Akbar,

2006; p.296; Taylor and Murphy, 2004; p.282). According to Kim et al. (2007) “the least developed countries such as Nepal are still not in a position to implement an e-government master plan”. One of the main reasons for that has been identified as it having less priority, with the public worried about basic services such as drinking water, electricity and health services more than other luxury matters like e-government (Kim et al., 2007; p.351).

The impact of culture on e-business success was assigned as a leading reason it is not successful. (Al-Alawi et al., 2005; p.612; Al-Somali et al., 2009; p.2; Alwabel and Zairi, 2005; p.7; Khalfan and Akbar, 2006; p.296; Kundi and Shah, 2007; p.2; Taylor and Murphy 2004; p.282). New innovation represents a complete change in the organisation’s culture and methods of doing business. Many issues surround this innovation, such as culture (Al-Shehry et al., 2006). These issues behave in particular ways depending on the organisational culture (Arranda et al., 2005).

Culture is a major factor in Eastern countries that is different from the Western, in that the Eastern countries put much more value on strong interpersonal relationships in business (Siriluck and Mark, 2005; p.12). It has been identified as an obstacle by 66% of 89 SMEs in 17 countries (Chappell and Feindt, 1999; p.8), and as one of the top ten challenges of e-business in Dubai (Al-Alawi and Kuzic, 2007; p.473). According to Taylor and Murphy (2004) one of the issues to address is geography in terms of social and cultural functions (Taylor and Murphy, 2004; p.282). In Pakistan, as in many other developing countries, culture is a more significant and determining factor than other variables for e-business use (Kundi and Shah, 2007; p.16).

The lack of suitable culture and organisational readiness was the main contributor to the failure of software implementations (Gargeya and Brady, 2005). The lack of culture dimensions in an organisation plan are considered to be the main contributor to the failure of e-service use by its employees (Pai and Yeh, 2008; p.687). Though the Internet provides easy access to customers around the globe, technology without help cannot eliminate cultural barriers (Deitel, Deitel, and Steinbuhler, 2001; p.344).

Most companies will encounter at least one obstacles identified during their implementation. It is valuable to clarify these variables from the early stages of

implementation and to consider the implementation as on going process and not “a one-off solution” (Al-Alawi and Kuzic, 2007; p.473; Chandrarathne and Lan, 2003). Technology alone cannot remove those obstacles (Deitel et al. 2001; p.344). As a result assistance should be sought from inside and outside the firm to improve these factors and to assess their impact (Jones et al., 2003; p.18). Individual and organisational related issues are becoming critical to the use of e-service. Therefore, the kind of assistance required should be an integrated framework to deal with them collectively (Al-Shehry et al., 2006). Many industries have achieved e-business by the combination of successful business practices and proper technology (Al-Otaibi and Al-Zahrani, 2004; p.31). Talking about the implementation is simple, making it happen is not (Kalakota and Robinson, 2001; p.388).

In this section we discussed how e-services are important especially for organisations to better serve their customers and be competitive with other organisations. Opposing many of the current practices in Saudi Arabia, e-services are not a matter of replacing the old way of being in contact with others; they are rather reengineering the whole business process besides using new technologies. Heaps of challenges to e-services were identified in the literature to each of the involved parties in the implementation process (e.g government, organisations, individuals ... etc.). Of these challenges: business environment, lack of strategy, lack of planning, lack of evaluation, lack of awareness, lack of commitment, lack of legislative support, and culture. Citing the guidelines proposed by Bose and Rashel (2007) for successful online engagement conclude this section. Challenges identified in this section are addressed in Table 3 in instruction format on how they can be overcome (Table 3). Additionally, details are provided for each step to ensure effective, structured, and helpful guidelines.

| No. | Guideline | Details |
|-----|---|---|
| 1 | Start planning early | duration, participants, preparatory info, format of acceptable inputs, utilization of acceptable inputs |
| 2 | Demonstrate commitment | high-level support, outline purpose, agree to publish results, explain utilization intentions |
| 3 | Guarantee personal data protection | assure and insure data security, data privacy, data confidentiality and even anonymity (if desired) |
| 4 | Tailor the approach to fit the target group | select suitable participants, customize sessions to suit group, provide additional |

| | | |
|----|---|---|
| | | support when appropriate (disability, etc.) |
| 5 | Integrate online engagement with traditional methods | use such complementary methods as public roundtables, focus groups, and dedicated web sites to provide multiple channels |
| 6 | Ensure online engagement using the telecom structure already built upon | use such complementary methods as public roundtables, focus groups, integrate private sectors, dedicated web sites to provide multiple channels |
| 7 | Test and adapt tools | before launching ensure tools (software, questionnaires, etc.) actually work, and modify based on user suggestions |
| 8 | Promote online engagement | use press conferences, advertising, links to websites, e-mails, and posters to create awareness and support |
| 9 | Analyse the results | commit the wherewithal (time, resources, expertise) to assure that the results are understood and interpreted for use |
| 10 | Provide feedback | publish results of the online engagement as soon as possible, spell out next steps, explain uses of engagement inputs |
| 11 | Evaluate the engagement process and its impacts | do a "lessons learned" after the engagement process to assess choice of participants, level of satisfaction, quality of inputs |

Table 3: Guiding principles for successful online engagement adapted from Bose and Rashel (2007)

2.3 Culture:

Culture has become a very important factor in information and communication technology improvement. It affects all aspects "of our lives" (Hofstede, 1991; p.170). Diverse cultural values have emerged from a common linguistic, historical, and spiritual background (Straub et al., 2001; p.10). Ideals are obtained at an early stage of life from family, region and school. The combination creates a value system that is naturally stable but changeable over time replicating changes in culture and individual knowledge (Straub et al., 2002; p.15). Shared cultural assumptions are powerful because they are less debatable (Cooper, 1994). However, studying them differs from studying culture; the focus of contrast in studying values is individuals while it is societies in studying culture (Hofstede, 2001; p.15).

Many approaches have been used to measure culture. Comparing two or more cultures is problematic since culture is rapidly changing which may result in insignificant outcomes. Considering a specific culture would help the researcher to measure the strength of particular cultural values held by the study participants. Individual cultural values can be standardised by the degree to which a study participant can be identified

within a social group under certain circumstances (Straub et al., 2002; p.20).

Ali et al. (2006) proposed a comprehensive framework of the different cultural dimensions through a normative survey of the culture literature within and outside of the Information Systems literature. Table 4 illustrates the variety of culture dimensions evidenced in the literature and provides a succinct version of their definitions (Ali et al., 2006). “These approaches generally argue that culture is a viable explanatory variable as it is conceptualised in a multi-dimensional structure”. Surveying managers from twenty different countries, Trompenaars and Hampden-turner (1997) identified seven cultural dimensions namely: Universalism versus Particularism, Individualism versus collectivism, Neutral versus Affective, Diffuse versus Specific, Achievement versus ascription, Attitude to Time and Attitude to Environment. In addition, Schwartz (1994) identified three dimensions; Conservatism / Autonomy, Hierarchy / Egalitarianism and Mastery / Harmony (Voros and Choudrie, 2011).

Three out of the Trompenaars and Hampden-turner’s seven cultural dimensions are not defined in Table 4. First is individualism versus collectivism as it overlaps with Hofstede’s (IC) dimension. Second is the attitude to time that measures the importance a culture gives to past, present, and future. Third dimension is the attitude to environment which, simply put, concerns how people in different cultures deal with nature; whether they prefer to control it or leave it to take its normal circle (Trompenaars and Hampden-turner, 1997; pp.120, 141).

| Culture Dimension | Definition |
|---|--|
| Uncertainty avoidance (UA) (Hofstede) | Degree to which people in a country prefer structured over unstructured situations: from relatively flexible to extremely rigid. |
| Power Distance (PD) (Hofstede) | Degree of inequality among people, which the population of a country considers as normal: from relatively equal to extremely unequal. |
| Masculinity/femininity (MF) (Hofstede) | Degree to which “masculine” values like assertiveness, performance, success and competition prevail over “feminine” values like the quality of life, maintaining warm personal relationships, service, caring, and solidarity: from tender to tough. |
| Individualism/collectivism (IC) (Hofstede) | Degree to which people in a country have learned to act as individuals rather than as members of cohesive groups: from collectivist to individualist. |
| Confucian Dynamism (Hofstede) | Degree to which people in a country promote collective welfare and harmony, resulting in psychological collectivism. |

| | |
|---|--|
| Universalism-Particularism (Trompenaars) | Degree to which people in a country compare generalist rules about what is right with more situation-specific relationship obligations and unique circumstances |
| Neutral vs. Emotional Relationship Orientations (Trompenaars) | Degree to which people in a country compare 'objective' and 'detached' interactions with interactions where emotions is more readily expressed. |
| Specific vs. Diffuse Orientations (Trompenaars) | Degree to which people in a country have been involved in a business relationships with in which private and work encounters are demarcated and 'segregated-out' |
| Achievement vs. Ascription (Trompenaars) | Degree to which people in a country compare cultural groups which make their judgments of others on actual individual accomplishments (achievement oriented societies) with those where a person is ascribed status on grounds of birth, group membership or similar criteria. |
| Conservatism vs. Affective/intellectual autonomy (Schwartz) | Degree to which people in a country emphasise maintenance of status quo (Conservatism), or emphasis creativity or affective autonomy emphasis the desire for pleasure and an exiting life. |
| Hierarchy vs. Egalitarian (Schwartz) | Degree to which people in a country believe in freedom and equality and a concern for others (Egalitarian), vs. emphasis the legitimacy of fixed roles and resources (Hierarchy) |
| Harmony vs. Mastery (Schwartz) | Degree to which people in a country concerned with overcoming obstacles in the social environment (Mastery) vs. concern beliefs about unity with nature and fitting harmoniously into the environment. |
| Communal Sharing Relationships (Fiske) | Degree to which people in a country see the members of a particular group as equivalent and undifferentiated. Group members favour their own group, and can be highly hostile to those outside that group (this concept is so close to Hofstede's notion of Collectivism). |
| Authority Ranking Relationships (Fiske) | Degree to which people in a country involve a linear ordering of relations, with people high in rank having not only prestige, privileges and decision-making rights, but also possibly some responsibility for those lower down the hierarchy (this concept has an overlap with Hofstede's notion of power distance). |
| Equality Matching Relationships (Fiske) | Degree to which people in a country stress equality in social relations. People are aware of where imbalances occur and operate under the norm of reciprocity. |
| Market Pricing Relationships (Fiske) | Degree to which people in a country think in terms of prices and investment. |

Table 4: A Framework of Culture Dimensions (Ali et al., 2006).

Hofstede's cultural dimensions are the most cited reference about culture within information systems discipline (Ali et al., 2006; p.1; Straub et al., 2002; p.18; Voros and Choudrie, 2011; Cardon and Marshall, 2008; p.104). In the early 80s, Hofstede presented the first four dimensions: Power Distance, Uncertainty Avoidance, Individualism, and Masculinity. The fifth dimension was brought about after research conducted in 23 countries by Michael Bond in 1991. This dimension emphasises the Long-Term Orientation. The most current dimension, which is Indulgence versus Restraint, was introduced as a result of "Minkov's World Values Survey data analysis for 93 countries" (www.geerthofstede.nl). Although he has provided a clear roadmap on

how to use his cultural indicators, some studies have misused it. Hofstede, in response to this specifies that his cultural model cannot be used to test individual level relationships and should be used only at the national level or sub-culture group level (Ali et al., 2008; p.7; Ford et al., 2003; Cardon and Marshall, 2008; p.105).

Straub et al. (2001) developed a cultural influence model and suggested that Arab cultural beliefs were a strong predictor of resistance to IT transfer (Straub et al., 2001; p.8). Al-Gahtani et al. (2007) used several methods to study the organisational effects of culture; one is to discover the national cultural dimensions quantitatively. More specifically, they used Tiandis's and Hofstede's national cultural dimensions and social identity theory. They drew on Hofstede's dimensions to illustrate cultural differences between Saudi Arabia and North America in regards to cultural implications on user acceptance of IT (Al-Gahtani et al., 2007; p.682).

"Cultural influence modelling" has been used by Straub et al., (2001) to demonstrate how cultural, social and technical factors can "predict and influence" the effects of the ITT (Information Technology Transfer) process in culturally varied societies. This study focuses on the beliefs and values related to the Arab sense of time (Straub et al., 2001; p.8).

To summarise, majority of our daily life practices are driven by culture giving no way to neglect it. Numerous studies were conducted to better understand culture through defining and proposing dimensions that could represent it. Hofstede's six dimensions of culture is one of the most used attempts, especially in the Information Systems field. Others like Straub et al., Trompenaars and Hampden-turner, and Schwartz, just to name few, have also contributed to draw a clear picture of culture. In the following section the relationship between culture and e-services will be presented as an attempt to link the two main themes of our research.

2.3.1 Culture and e-services:

Culture is mentioned as an impediment to e-service use by many researchers (Al-Shehry et al. 2006; Alawi et al. 2005; Siriluck and Mark 2005; Jones et al. 2003; Chappell and Feindt 1999; Al-Alawi and Kuzic 2007; Taylor and Murphy 2004; Kundi and Shah

2007; Deitel et al. 2001; Alwabel and Zairi 2005; Pai and Yeh 2008; Rapp et al. 2008). E-government is not only a technical project but rather it has many aspects that require time and a framework to deal with since they affect all aspects of business. It requires changes in the behaviour of the individuals. All these requirements and more are becoming challenging toward a successful development of e-service use. The major issues are often “organisational dimensions including strategy, structure, people, technology and processes as well as the principal external forces such as citizens, suppliers, partners and regulators” (Al-Shehry et al., 2006).

Many key issues in electronic services in developed countries are different from developing countries because of the various technological and social circumstances. Consequently, strategies and experiences from developed countries may not necessarily be appropriate for developing countries (Chen et al., 2007; p.49; Voros and Choudrie, 2011). Historically, developed countries were either colonisers or were colonies that obtained their independence much earlier than developing countries. They have had more time and better chances to improve services, follow up and uptake the new business trends. Meanwhile most developing countries are still at the foundational stages of basic infrastructure. In addition, bureaucracy and governance in developing countries is slow and can sometimes hinder adopting innovations. Citizen’s participation in making decisions enforces developed countries to adopt them. Table 5 extends the explanation of these differences (Chen et al., 2007; p.49).

| | Developed Countries | Developing Countries |
|----------------------------|--|--|
| History and Culture | <ul style="list-style-type: none"> • Government and economy developed early, immediately after independence • Economy growing at a constant rate, productivity increasing, high standard of living • Relatively long history of democracy and more transparent government policy and rule | <ul style="list-style-type: none"> • Government usually not specifically defined; economy not increasing in productivity • Economy not growing or increasing productivity; low standard of living • Relatively short history of democracy and less transparent government policy and rule |
| Technical Staff | <ul style="list-style-type: none"> • Has current staff, needs to increase technical abilities and hire younger professionals • Has outsourcing abilities and financial resources to outsource; current staff would be able to define requirements for development | <ul style="list-style-type: none"> • Does not have a staff, or has very limited in-house staff • Does not have local outsourcing abilities and rarely has the financial ability to outsource; current staff may be unable to define specific requirements |

| | | |
|----------------------------|---|---|
| Infrastructure | <ul style="list-style-type: none"> • Superior current infrastructure • High internet access for employees and citizens | <ul style="list-style-type: none"> • Inferior current infrastructure • Low Internet access for employees and citizens |
| Citizens | <ul style="list-style-type: none"> • High Internet access and computer literacy; still has digital divide and privacy issues • Relatively more experienced in democratic system and more actively participate in governmental policy-making process | <ul style="list-style-type: none"> • Low Internet access and citizens are reluctant to trust online services; few citizens know how to operate computers • Relatively less experienced in democratic system and less actively participate in governmental policy-making process |
| Government Officers | <ul style="list-style-type: none"> • Decent computer literacy and dedication of resources; many do not place electronic government at a high priority | <ul style="list-style-type: none"> • Low computer literacy and dedication of resources; many do not place electronic government at a high priority due to lack of knowledge on the issue |

Table 5: Main differences between developed and developing countries (Chen et al., 2007; p.49)

It has been cited in Cooper's (1994) study that different cultures require different kinds of information, process information differently and this plays a role in the degree of user satisfaction with decision support systems (Cooper, 1994). 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 (Straub et al., 2001; p.3; Voros and Choudrie, 2011). New technologies users are often younger people who have been educated in the western world and introduced these technologies into their organisations, while the elderly have fears of unidentified effects of technology. They emphasise the importance of top managers adopting technological changes before others because if they do not do so this would be seen as a strong negative indication (Hill et al., 1998; p.11). In another words, when employees see their leaders not implementing the new technologies they will think that their leaders are not in favour of using it.

According to Ali et al. (2008) different uses of IT are sometimes derived from the nature of a country's national culture. For example, a collective culture will likely differ compared with the individual. The levels of culture are not necessarily hierarchical from the broad context in which national culture is to a specific community culture. The cultures that enfold the individual interaction and comprise the individual's unique culture eventually will influence the individual's subsequent actions and behaviour (Ali et al., 2008; p.3). Voros and Choudrie, (2011) supporting this discussed the "espoused national cultural values" which is based on "the logic that individuals espouse national

cultures to differing degrees” (Voros and Choudrie, 2011). However, individuals may or may not be identified within the national culture; a researcher should not assume that they necessarily do (Straub et al., 2002).

Although globalisation is shrinking the social and cultural diversity over the entire world and introducing a universal culture emerging from the use of IT, the full understanding of the country’s culture will assist the web to fit in and establish successful customer relationships. The websites targeting online consumers should be friendly with national and local language instead of English. It has been argued that different languages and cultural platforms increased the difficulty of doing e-business. A bigger challenge may well be the attitude and culture of business and government entities (Kundi and Shah, 2007; p.7).

It was found by Chadhar and Rahmati (2004) that national culture is one of the factors that influence CMC (Computer Mediated Communication). In individualist cultures, CMC is more successful but collectivist cultures are less likely to use technology like CMC. In addition people in individualistic cultures are more likely to argue and cite their points of view against the majority with the help of technology. While collectivist cultures are less likely to use available technology like CMC to disagree with majority opinions (Chadhar and Rahmati, 2004; p.24).

National cultures impact on people’s decision making according to different types of information. One reason is individualistic and collectivistic characteristics; individualistic characteristic’s people rely more on other sources than collectivistic people do. Collectivistic “consults family or friends” regards decision like buying, travelling, studying ... etc. (Su and Adams 2005; p.237). It was found by Heales and Cockcroft (2003) that national cultural dimensions are extensively related to “the outcome of the decision to enhance or re-develop a system, and the organisational level at which such decisions are made” (Heales and Cockcroft, 2003; p.975). The impact of national culture still exists even in highly educated business environments (e.g. pilots, medical specialists ... etc.). Data collected from 9,400 male commercial airline pilots in 19 countries confirms that national culture has an impact on cockpit behaviours over the professional culture of pilots (Merritt, 2000; p.283).

Understanding the employees' usage behaviour of ICTs is a useful outcome of studying the organisational values (Ali et al., 2008; Merritt, 2000). 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. According to Cooper (1994) organisational culture is difficult to change because:

- Much of organisational culture is taken for granted and it is difficult to change things that are implicitly part of people's thinking and behaviour.
- Much organisational culture has deep historical roots.
- Certain power groups have vested interests in the beliefs and assumptions and are unlikely to be willing to discard them.
- Cultural changes lead to increased anxiety for group members (Cooper, 1994; p.18).

In summary, culture is much more dynamic than has been assumed in much of the comparative management and IS research literature (Ali et al., 2008; Voros and Choudrie, 2011). The sensitivity to cultural diversity plays an essential role in the success or failure of e-service (Kundi and Shah, 2007; p.7). Markus (2005) contends, "that the success of e-business strategies depends on other people's behaviour". Consequently, for a successful system interface it is vital that the design should consider and keep in mind the cultural values (Markus, 2005; p. 377). Culture does not necessarily need to be viewed as an obstacle that obstructs IT transfer especially if its design considers cultural values. Managers should try to work with existing cultural patterns, especially in the case of employees who have not been technologically cultured (Straub et al., 2001; p.34).

2.3.2 Saudi culture:

There are many perspectives that form Saudi's culture such as religion and the tribal system. Al-Shehry et al. (2006) have stated that in a country such as Saudi Arabia it is crucial to consider the cultural characteristics and the values of the environment. The use of e-service is a very complex process and is often accompanied with many

challenges. These challenges vary between technical, cultural, educational, economic, political and social. Additionally, Atiyah (1988) found that IT transfer is often hampered by technical, organisational and human problems in Saudi Arabia (Atiyah, 1988; p.524). Thus, this section will present some components of Islamic and Arabic cultures as the two main drivers of Saudi culture.

Islam 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). The Koran has been a unifying force that has significantly impacted and acted as a driver to create a common culture and legal system, Sharia law in Arabic countries. Equality is ensured for all regardless of their health, wealth or other criteria since Muslim community is a brotherhood (Kabasakal and Bodur, 2002; p.44). The widespread statement is that morals come from religion (Hofstede, 1998; p.194).

Family importance has been emphasised by the Koran and the Sunna. Individuals secure themselves through the “attachment and commitment” to their groups as they are expected to provide help to them when necessary. This fact can be obviously observed in different life styles: bedouin, provincial, and civilian (Kabasakal and Bodur, 2002; p.47). This explains some of the reasons behind the effects of the tribal system on business environments in Saudi Arabia mentioned by Al-Shehry et al. (2006).

Tajfel (1978) in Bagozzi, (2007) called for the term “social identity” which has three components. First, being aware of the clan membership, second, extending the awareness to the sense of connection to the group. Third is an estimate of favourable or unfavourable concepts related to the clan membership or what can be called “collective or group self-esteem” (Bagozzi, 2007; p.248).

Leaders are expected to offer job opportunities not only for their own relatives but for their employees’ relatives as well. This “is regarded as unethical conduct” since many of these jobs go to unqualified people that consequently will result in less business efficiency. Furthermore, people with more authority can settle many issues in the daily life (e.g. finding a place in a hospital for treatment, or exempting a relative or close friend from a traffic police fine). Thus, managers in this culture concentrate on building and maintaining “personal contact” more than doing the actual business (Kabasakal and

Bodur, 2002; p.51) to broaden their network of exchanging vested interests.

Arab cultural beliefs are a very strong predictor of resistance to systems. Some researchers 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 (Straub et al., 2001; p.3; Voros and Choudrie, 2011).

The key characteristics of Arabs are: “fatalism, culture of mind versus culture of heart, open versus closed mind, and vertical versus horizontal values”. Religion, family and national traditions often negatively effect the new innovations acceptance. 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 (Hill et al., 1998; p.6).

Individuals in Arab societies are “more tolerant of uncertainties in the environment and do not plan for the future as much as individuals living in more individualistic societies”. This is due to two reasons: firstly a sense of fatalism, for Muslims believe that “all deeds that occurred in the past and that will occur in the future are prearranged and within God’s preordaining”. This belief in fate is one of the basic pillars of Islam. Secondly, the sense that the attachment to a network of relatives or any other group is enough to cope with life’s difficulties (Kabasakal and Bodur, 2002; p.48). Al-Gahtani (2007; p.682) and Agourram (2009; p.56) studies confirm the ignorance of future planning, which is one of the Arabic cultural characteristics, indicating that Saudi ranks much higher than other countries in uncertainty avoidance. Some Arabic countries like Egypt, Kuwait, Morocco and Qatar are slightly different as they used to be colonies. However the acceptance of Islam has influenced social values and practices as well as the legal system of these countries (Kabasakal and Bodur, 2002; p.43).

To conclude, the tribal system plays an important role in the work place. Although it is a major factor, Saudi Arabia is progressing toward new forms of society. They are adopting Western technology while keeping the original values of Islamic and Arabic

customs and the traditional system of power. E-government system is not a magical tool to solve the public sector's problems. There are some problems in the public sector that need to be solved before implementing an e-government system (Al-Shehry et al., 2006). The preliminary review of the literature indicated an importance to explore four Saudi cultural values. The following sections discuss these four aspects.

2.3.2.1 Nepotism:

Nepotism has historical roots and is not a current phenomenon (Ford and McLaughlin, 1986; p.78; White, 2000; p.109). The history of nepotism is discussed in different disciplines such as "evolutionary biology, anthropology, religion, sociology, psychology, political science, history, law, and economics" (Ciulla, 2005; p.154; Laker and Williams, 2003; p.192). People have different "racial, national, linguistic, tribal, and religious" backgrounds, which derives the practices of nepotism (Vanhanen, 1999; p.55). Nepotism is common around the world, despite the fact that it is more obvious and critical in the developing countries (Abdalla et al., 1998; p.554; Arasli et al., 2008; p.1239).

The word nepotism is originally adopted from "the Latin word (nepot)" (Ford and McLaughlin, 1986). "It is related to the English word nephew, which comes from Latin via Old French" (Arasli et al., 2008; p.1238). It is also related to the Italian word (nipóte), which refers to any male or female family member (Ciulla, 2005; p.155). Defining nepotism is problematic (Laker and Williams, 2003; p.192). There are many definitions; most of them agree that nepotism is "the employment of relatives" (Ford and McLaughlin, 1986; Arasli et al., 2008; p.1238), whether in the same organisation (Ford and McLaughlin, 1986; Hayajenh et al., 1994b; p.53), or even "working or being supervised by their relatives in the same department" (Abdalla et al., 1998; p.557).

A working definition for the purpose of this study is consistent with Webster's and Longman's definitions of nepotism. Nepotism according to Webster's International Dictionary is defined as "favouritism shown to nephews and other relatives, as by giving them positions because of their relationship rather than their merit" (Abdalla et al., 1998; p.555). While it has been defined by the Longman dictionary of Contemporary English as "the practice of favouring one's relatives when one has power or a high office,

especially by giving them good jobs” (Arasli et al., 2006; p.296).

Nepotism is also related to corruption; Dwivedi (1967; p.245) describes corruption as “the misuse of public office for private gain” and this is often a factor in nepotism (Robertson-Snape, 1999; p.589). Fershtman et al. (2005) used the term “discrimination in favour” to represent nepotism (Fershtman et al., 2005; p.373).

From a human resource management point of view, Padgett and Morris (2005) defined nepotism as “the practice of showing favouritism during the hiring process toward relatives or spouses of current employees in an organisation” (Padgett and Morris, 2005; p.34). Similar to this, Vinton defines nepotism as the practice of hiring relatives (Vinton, 1998; p.297). Ciulla adds, “hiring an incompetent relative” to the definition (Ciulla, 2005; p.154). Moreover, nepotism involves “undeserved rewards, or unfair discrimination in granting employment or other advantages to relatives” (White, 2000; p.108).

Public sector organisations are the largest employers in most developing countries. As a result, the competition on jobs provided by this sector encourages nepotism (Hayajenh et al., 1994b; p.60; Vanhanen, 1999; p.55). Some relatives, who come in by way of nepotism are productive in their jobs; however, others are not. Hence, the nepotism is always perceived as negative (Ford and McLaughlin, 1986; p.78). A factor in sustaining such practices is that public sector has less restrictions on nepotism compared to the private sector (White, 2000; p.118).

Scoppa (2009) has studied the public sector in Italy and found evidence of the presence of nepotism. Scoppa contends that jobs in this sector are attractive to the extent that parents think of using their power and contacts to secure a job in this sector for their children. “If the father is a public employee the probability of his child working in the same sector is increased by a huge 44%” (Scoppa, 2009; p.167). Indeed, “children use their family name and relatives’ influence to get ahead” (Ciulla, 2005; p.155). Additionally, Padgett and Morris found that “85% of managers were willing to practice nepotism in some circumstances, despite expressing negative attitudes about nepotism in general” (Padgett and Morris, 2005; p.35).

Similar to Scoppa (2009) and Ciulla (2005) in their view on family nepotism, Lentz and Laband (1989) have reached the conclusion that nepotism worked as a facilitator for children of doctors to be admitted to medical school. They have manipulated the “acquired human capital and other attributes of medical school applicants” and found those children are about 14% more likely to be admitted than other applicants (Lentz and Laband, 1989; p.396).

Vanhanen (1999) proposed the concept of “ethnic nepotism” based on the discussion that “ethnic and racial sentiments are an extension of kinship sentiments. The closer the relationship is, the stronger the preferential behaviour”. Moreover, this sentiment is extended to incorporate linguistic, national, racial, and religious groups. This concept explains kind of “ethnic nepotism” (Vanhanen, 1999; p.57), which is similar, to some extent, to the scope of the problem in Saudi Arabia.

A study conducted by Abdalla et al. (1998), identified and analysed perceptions of human resource managers in the USA and Jordan toward arguments supporting and opposing nepotism, then comparing them to see if there are differences between developing and developed countries (Abdalla et al., 1998; p.561). The results suggest that nepotism is an issue in both developed and developing countries. Managers studied “are expected to be disappointed, frustrated and stressed to the degree that they might quit as soon as they find alternative jobs”. Additionally, determined managers will avoid joining such organisations in the future (Abdalla et al., 1998; p.568).

In a review for Bellow’s book (Bellow, 2003) on nepotism, Ciulla (2005) states the following:

Bellow believes that nepotism is a social and cultural strategy for living in communities that are based on marriage, reproduction and inheritance. Ancient nepotism is a system of reciprocity that offers a solution to distributing goods in extended families based on tribe, clans and caste. Bellow tells us freeing the civil service of nepotism was difficult. As an old Chinese proverb says, “When a man becomes an official, his wife, children, dogs, cats and even chickens fly up to heaven”. What is alarming about Bellow’s study is the observation that there is a rapid expansion of nepotism in America in recent years. While America does not

have tribes or clans, it does have other groupings in society, such as race, class, and ethnicity, which exclude others. He shows how nepotism is not only difficult to eradicate, but also difficult to sustain without leading to corruption and/or stagnation in business and politics (Ciulla, 2005; p.156).

Consistent with Bellow's view of corruption and of nepotism's consequences, Robertson-Snape's (1999) investigation into Indonesian cultural aspects of corruption found explanation for these aspects through the traditional values and power structures (Robertson-Snape, 1999; p.590). According to this article's argument, business in Indonesia is all about "who you know" and not "what you can do" (Robertson-Snape, 1999; p.595). In such a culture, individuals' loyalty to their families is more than that to their country. Consequently, they see their duty in their jobs as mainly to "further the economic or employment opportunities of that family" and regard this as "legitimate in terms of the official's priorities" (Robertson-Snape, 1999; p.597). Unfortunately, this kind of authority abuse "is unlikely to be documented" (Robertson-Snape, 1999; p.589; Padgett and Morris, 2005; p.38), which makes the study of nepotism's impact more challenging. The scope of this study does not extend to corruption, for nepotism happens as a result of non-monetary factors like family obligations, whereas corruption relates to monetary rewards or benefits exchange.

Vanhanen (1999) illustrates that the members of any ethnic group "tend to favour their group members over non-members because they are more related to their group members than to the remainder of the population" (Vanhanen, 1999; p.57). The potential of this favouritism increases further as the society is "ethnically divided". Differences in cultural traditions and in the amount of communication within these groups were found to have effect. Different from other studies, Vanhanen considered cultural differences "not only culturally, but also genetically" (Vanhanen, 1999; p.58). To an extent supporting the latter; Bellow (cited in Ciulla, 2005) notes that "some large companies like to hire relatives of employees because the conduct of one relative is often a good indicator of the conduct of another" (Ciulla, 2005; p.155).

Vinton (1998) comprehensively reviewed the literature on nepotism and introduced an expanded interdisciplinary approach to study nepotism. Vinton categorised the current

literature on nepotism to four major categories: legal, anecdotal, human resource policies and research. In terms of the “legal” aspects in the nepotism literature, it was found to be much written about in both public and private sector. Vinton (1998) also found that the anecdotal literature included articles presenting nepotism in a positive light based on the following:

- Shorter learning curve, greater loyalty, lower risk, better performance, lower turnover and fulfilling needs at peak times.
- High performance, stable relationships with contractors and long-term commitment to the company.
- Successful succession.
- Clear communication of the rules before they are needed and fair application of the rules when timely” (Vinton, 1998; p.297).

The last two groups were Human Resource Policies and Research. Numerous surveys were aimed at what nepotism policies organisations have, while some went beyond to investigate those policies’ interaction with other organisational factors. Ford and McLaughlin (1986), and Hayajenh et al. (1994), surveyed human resource managers and found that more than 75% of the participants agreed, “nepotism complicated their jobs” (Vinton, 1998; p.298).

According to Vinton (1998), the culture of a country or area has a possible impact on nepotism. Thus, studying the surrounding environmental factors contributes toward “a more thorough understanding of the impact of nepotism policies and practices” (Vinton, 1998; p.301). Taking this in consideration, our study deals with nepotism as one of the elements of Saudi culture.

Nepotism is not cost free. Laker and Williams (2003) have investigated the effects of nepotism on employee satisfaction and organisational commitment. They noted that the negative effects of nepotism are more obvious in large corporations than in the small ones (Laker and Williams, 2003; p.191).

Definitions of nepotism browsed in the previous section generally agreed that nepotism

is giving or having an advantage based on the family relationship and not on the worthiness. This fact exists across the different fields that studied nepotism such as sociology, psychology, and HRM. This section has also explained the link between corruption and nepotism and their practices especially in public sector organisations in different countries. Moreover, the consequences of these practices were briefly presented. However the discussion will be extended in the following two sections to illustrate more about the positive and negative impact of nepotism.

Positive impact of Nepotism:

Nepotism has drawbacks as detailed above but is also thought to have some advantages (Abdalla et al., 1998; p.556; Ciulla, 2005; p.154). The variety of judgement on nepotism is caused by the fact that “an unethical act in one culture may be socially acceptable in another” (Dwivedi, 1967; p.245; Robertson-Snape, 1999; p.598). The main focus of one of the leading studies about nepotism was “to determine whether human resource managers agreed or disagreed with” some of the identified statements on the advantages and disadvantages of nepotism (Ford and McLaughlin, 1986; p.81).

Abdalla et al. (1998) have reviewed the literature with focus on the advantages of nepotism. Their review resulted in the following primary advantages:

- It provides an efficient way to identify dedicated personnel to staff organisations.
- Permitting nepotism allows consideration of all potential employees who might be effective toward the organisation rather than not including them because of their blood relation to an existing employee.
- It tends to foster a positive family-oriented environment, which boosts morale and job satisfaction for all employees, relatives or not.
- It prompts family competition toward the benefit of the company.
- It keeps difficult younger generations off the streets.
- Nepotism keeps companies alive. Chances are that if succeeding generations are brought into oneness, they will develop a pride of ownership and family

ties (Abdalla et al., 1998; p.555).

Ford and McLaughlin (1986) categorised the advantages of nepotism into different groups such as: “the desirability of working in a warm family-type atmosphere, improved communications, consistency of policy, smoothness of executive transition and acceptance of a family-led organisation by customers and the community” (Ford and McLaughlin, 1986; p.80).

Negative impact of Nepotism:

Nepotism can also have negative consequences (Vinton, 1998; p.299). As they reviewed the advantages nepotism through the literature, Abdalla et al. (1998) identified the following drawbacks of nepotism with more focus on family-owned businesses:

- “Allowing nepotism lowers morale for those people who supervise relatives of high-level executives, those who must work with them, and those who feel that promotions and rewards are given unjustifiably to a relative.
- Nepotism puts incredible and unfair pressure on employees. It can be an awful burden for the relative to be unsure if organisational rewards were earned by what he or she did or only because of who he or she is.
- Permitting nepotism needlessly exposes the organisation to problems of family conflicts, sibling rivalry over managerial succession and improper combinations of business with corporate decision-making processes” (Abdalla et al., 1998; p.557).

According to Ford and McLaughlin (1986), the drawbacks of nepotism can be generally grouped. These groups include: a negative impact on morale, the tendency of family affairs to get mixed up with business decisions, and the problems shared by people who can never know for sure if they were hired, promoted or given a raise on the basis of actual performance or kinship” (Ford and McLaughlin, 1986; p.80).

Laker and Williams (2003) stated, “if there is nepotism there will be favouritism, inequity, employee dissatisfaction and lower commitment” (Laker and Williams, 2003; p.200). This kind of judgment expresses a real need to investigate whether nepotism

has positive, negative, or no impact at all (Padgett and Morris, 2005; p.43). Arasli et al. (2006) investigate the possible impacts of nepotism on multiple organisational dimensions in the tourism industry. They found it to effect behavioural outcomes such as job satisfaction, quitting intentions and word of mouth communications. It also affects human resource management practices in general, especially in “heavily nepotism-oriented businesses”. Indeed, the existence of nepotism demotivates employees and decreases their level of satisfaction (Arasli et al., 2006; p.295). Those consequences are not specific to current employees, but also to prospective new employees by discouraging them from joining such a business (Arasli et al., 2006; p.304).

Consistent with Arasli et al. (2006), Abdalla et al. (1998) found that the nepotism will also dissatisfy, and demotivate employees in their jobs. In addition, there might be disloyalty and lack of commitment toward their organisations. Lack of curiosity in their work involvement and lack of cooperation with their colleagues will also possibly occur. All of these negative consequences will lower the employees’ morale (Abdalla et al., 1998; p.569; White, 2000; p.111; Arasli et al., 2006; p.304). The likelihood of “absenteeism and increase in the overall turnover” will rise as a consequence of nepotism practices. Failure to deal with such issues is a serious problem that in turn could affect the organisational performance in general (Hayajenh et al., 1994b; p.51; Abdalla et al., 1998; p.569; Goldberg, 1982; p.308). In their conclusion, Arasli et al. (2006) contend that the presence of nepotism in the workplace “mostly may drive employees to have a closer relationship with family members in order to strengthen their positions rather than displaying higher performance” (Arasli et al., 2006; p.305).

In another study, Arasli et al. (2008) examined nepotism, favouritism and cronyism and found nepotism to have the highest negative impact on job stress. They found that job candidates in the private banking sector in northern Cyprus, are selected based on “their friendships and blood relationships” regardless of their qualifications and job skills. Therefore, lack of motivation, productivity and most importantly job satisfaction appear. The result of employees’ job satisfaction is customer satisfaction (Arasli et al., 2008; p.1239) and hence employee dissatisfaction results in customer dissatisfaction.

Ford and McLaughlin (1986) conducted one of the leading studies on nepotism. They found that, despite nepotism being common, there are “few detectable relationships between organisational characteristics and the practice of nepotism”. On the whole, participant managers declared that the drawbacks of nepotism strongly outweigh its benefits (Ford and McLaughlin, 1986; p.86).

Investigating the impact on employees, management and organisations, Hayajenh et al. (1994b) found nepotism to be negative. They interviewed employees, middle and lower managerial levels in several overseas organisations in Egypt and Jordan and found many of them have confirmed the negative effects of nepotism on their “satisfaction, motivation, morale, loyalty, commitment, cooperation, and productivity” (Hayajenh et al., 1994b; p.52). In fact, many of those managers “will quit because nepotism blocked their advancement” (Hayajenh et al., 1994b; p.56).

Scoppa (2009) researched “the social costs of nepotism”. He believes that employers who support nepotism in their selection practices for less qualified relatives are “responsible for worsening the performance of public organisations” and the whole society. Favouritism might cause further costs in a labour market on the long term as “nepotism discouraged individuals from investing in skills because they are not adequately awarded, and talented people end up in less-efficient job matching” (Scoppa, 2009; p.182).

From the previous review we can summarise the most reported negative impact of nepotism in the following: lack of motivation and business morales, lower satisfaction and commitment, more pressure on the employees even those who take advantage out of nepotism as they are confused whether they have been treated based on their merit or relationship. Furthermore, as nepotism could promote a friendly business environment it could also bring the family conflict to business.

In order to diminish the impacts of nepotism on the organisations, “rules and regulations that minimize or prevent these kinds of unfair recruitment, placement and promotion practices need to be put in place by the government” (Arasli et al., 2008; p.1248). These policies “must go beyond anecdote and measure nepotism, otherwise our nepotism policies are based upon fears and opinion”. Organisations, whether public

or private, should consider allowing nepotism “whilst developing and enforcing boundaries/guidelines to avoid the potential negative aspects” (Laker and Williams, 2003; p.201). They “must be extremely careful to avoid the adverse impact that nepotism can have on productivity, morale, and continuing social support” (Ford and McLaughlin, 1985). The following section gives an overview about nepotism policies.

Nepotism policies:

There is much in the nepotism literature about policies and rules related to nepotism in business organisations. In 1963, a Wall Street survey found that 28% of the participating American organisations had formal anti-nepotism rules and an additional 36% had unwritten ones. Two years later, the Harvard Business Review survey of executives found that about 4000 of the surveyed 8000 American executives’ organisations had a nepotism policy. Furthermore, it was found that most organisations had either written or informal policies concerning the employment of relatives through the survey of 500 companies. Since then, the presence of formal written nepotism policies has increased. In 1984, a study of the 45 largest corporations revealed that almost two thirds had written policies and the other third had informal policies prohibiting or limiting the employment of relatives. In 1985, half of the participants of the American Society for Personnel Administration (ASPA) survey indicated that their organisations had nepotism policies (Abdalla et al., 1998; p.557; Hayajenh et al., 1994b; p.56).

From the beginning of the twentieth century, American government legislation emerged to eliminate governmental corruption and increase efficiency, but there is no clear interpretation for nepotism. White (2000) characterises “nepotistic practice into four general categories: appointment, supervisory, situational, and contractual” thus making way for a clear interpretation (White, 2000; p.109). Correspondingly, human resource policies regarding nepotism in non-family businesses have generally been examined at four levels: never hiring relatives of employees; never hiring relatives to work at the same facility; never hiring relatives to work in the same department or work group; and never allowing relatives to directly supervise their relatives (Vinton, 1998; p.297).

On the presence or absence of a nepotism policy, Ford and McLaughlin view

organisational characteristics to have no effect (Ford and McLaughlin, 1986; p.82). The reasons behind “anti-nepotism laws” are to stop corruption through family ties as well as to favour competent (non relatives) candidates over incompetent relatives from accessing the jobs (White, 2000; p.108).

Methods used in studying Nepotism:

Research investigating nepotism used different methods. Fershtman et al. (2005) developed an experimental test to differentiate between discrimination against and discrimination in favour of (nepotism). Their participants were university students in Belgium and Israel. In Belgium, students were divided into two groups with respect to their language; Flemish and Walloons. In Israel students were divided into groups with respect to religion; religious versus secular. They compared the behaviour toward individuals of different groups with the behaviour toward anonymous individuals (those having no clear group affiliation) (Fershtman et al., 2005; p.371).

A survey questionnaire was the most frequently used method to study nepotism. Ford and McLaughlin (1986) developed, pre-tested and mailed their questionnaire to a random sample of 900 members of the American Society for Personnel Administration (ASPA) (Ford and McLaughlin, 1986; p.81). Hayajenh et al. (1994), and Hayajenh et al. (1994b) used the same scale developed by Ford and McLaughlin. They initially collected “pool of concepts from the literature and interviews with employees and management in the participating organisations”. The aim was to measure the attitudes of Human Resource Managers towards the impact of nepotism on the functions and policies of Human Resource practices in their own jobs (Hayajenh et al., 1994; p.63; Hayajenh et al., 1994b; p.63).

Laker and Williams (2003) also applied a questionnaire using three different measures of nepotism: dummy variable, level of nepotism (nepotism density), and the total nepotism density scores (Laker and Williams, 2003; p.197). Whereas Marbach (1999) used five indicators to measure aspects of nepotistic engagement:

- (1) Multiplexity: The number of nominations a relative attracts from the respondent pertaining to 6 name generators: being addressed for discussions on personal matters, regularly sharing dinners, being addressee of emotional feelings,

having given financial aid, having received financial aid, and sharing leisure time activities.

(2) Overlap: The number of nominations a relative attracts from the respondent pertaining to: Being a member of the respondent's household, being acknowledged as a member of the respondent's family and being nominated in at least one of the 6 name generators building the multiplexity index. A high overlap will express the degree of living together.

(3) Claim rate: The percentage living relatives are drawn upon for distinct ends of the respondent as: Addressing emotional feelings and/or having given financial aid to. This indicator does not deal with the amount of activities a single relative absorbs but with the degree of the respondent's making use of a distinct sort of available relative.

(4) Frequency of contact: Percentage of relatives of a distinct sort who contact the respondent more than once a month. From the point of view of the nepotism hypothesis, frequency of contact means investment of time into social interaction.

(5) Housing distance: Percentage of relatives of a distinct sort who live in the same village, town or quarter at a distance not more than 15 minutes by feet. Though housing distance could be conceived of as something like accessibility to interactions" (Marbach, 1999; p.7).

In another study conducted by Padgett and Morris (2005), 197 upper-level undergraduate students from a small, private university were targeted to research the benefits of nepotism in the hiring process. To achieve realism, data were manipulated, since it is uncommon for organisations to reveal that someone was recruited "because of his/her family connection". This study measured three factors: "perceived fairness of the hiring process, subordinate/subject perceptions of and responses toward their new supervisor, and subordinate/subject job attitudes and work behaviours (Padgett and Morris, 2005; p.36).

Vanhanen (1999) has three different indicators in his study. The measurement of ethnic division was based on three types of ethnic groups: (1) ethnic groups based on racial

differences, (2) ethnic groups based on linguistic, national or tribal differences and (3) ethnic groups based on stabilised old religious communities. The level of ethnic division was measured by the proportion of the largest ethnic group in the country's total population (Vanhanen, 1999; p.59).

Arasli et al. (2006) used a 36-item survey instrument to investigate the effects of nepotism on human resource management. Ten of them were measuring nepotism adapted from Abdalla et al. (1998). Scoppa (2009) adapted the Survey of Household Income and Wealth (SHIW) and empirically analysed its data. Through using explanatory variables such as individual characteristics, human capital indicators and regional variables, Scoppa estimated the likelihood of obtaining a public sector job. He found "the probability of working in the public sector is strongly determined by the fact that one of the parent works (or has worked) as a public employee (Scoppa, 2009; p.178).

In brief, nepotism was measured in the reviewed literature through using from three to thirty six indicators. As indicated earlier, a survey questionnaire was the most frequently used method. Respondents to those surveys varied between students, employees, managers, and professional associations and other groups' members. The following section browses some of these studies' results.

Empirical studies of Nepotism:

Empirical studies help to inform the body of knowledge to better understand the studied phenomenon. Different empirical research methods used to investigate nepotism are briefly reviewed in this section. In their study, Abdalla et al. (1998) found that nepotism is still practiced in the American companies that they studied. They also found that majority of the surveyed human resource managers (HRMs) agreed that nepotism has more disadvantages than advantages and effected the functions and policies of their work (Abdalla et al., 1998; p.559). 38% of American HRMs agreed on statements supporting nepotism while it was 47% by their counterparts in Jordan. This high level of agreement with arguments for nepotism reported by Jordanian HRMs could be "due to their cultural differences". However, these results still indicate a strong passion against nepotism (Abdalla et al., 1998; p.563).

Results from Arasli et al. (2006) study indicate that nepotism explains 61% of the variance in human resource practices with a considerable negative effect in the path analysis on each of these variables. More specifically, nepotism has a significant negative effect on job satisfaction, intention to quit and negative word of mouth (Arasli et al., 2006; p.303).

Fershtman et al. (2005) proved the presence of nepotism (initially known as discrimination in favour) in Israeli society and discrimination (they initially name it discrimination against) as opposed to the lack of it in Belgian society. They propose an important question: why do we have such different patterns of discrimination in different societies? (Fershtman et al., 2005; p.390) No answer has been determined. The majority of respondent organisations agreed that companies that prohibit nepotism are more effective than those that allow it (Hayajenh et al., 1994; p.66). On the contrary, Vinton found only four out of ten respondents “felt that organisations that permit nepotism were less effective than ones that prohibit it” (Vinton, 1998; p.299).

Laker and Williams (2003) have interesting findings regarding nepotism in the banking sector. None of the nepotism items were notably related to an employee’s satisfaction with their job or with the organisation. However, all the nepotism measures were significantly related to commitment to the organisation. Those that had at least one relative employed at the bank were significantly more likely to be committed to the organisation than those with no relatives at the bank (Laker and Williams, 2003; p.200).

In their study for medical school applicants (a total sample of 36,141 who applied to at least one medical school in 1979), Lentz and Laband (1989) found about two thirds of all medical school applicants were admitted to at least one of the medical schools which they applied to and three quarters of doctors' sons/daughters were admitted to at least one of the schools they applied to. Furthermore, children of doctors are almost 14% more likely to be admitted into medical school than others. There are two possible explanations for this result; it could be a matter of “intergenerational transfers of career-specific human capital”, or nepotism. Although the reasons for this are difficult to pinpoint, they stated that they could not ignore nepotism as a cause (Lentz and Laband, 1989; p.397).

A research conducted by the Harvard Business Review in 1965 revealed more than 60% of the participating businessmen (N=2700) had negative attitudes toward nepotism. They deemed it “to be unfair and irrational” as a result of its emphasis on hiring on a factor other than merit (Padgett and Morris, 2005; p.34).

Vanhanen (1999) found a strong relationship between ethnic conflict and ethnic nepotism, and that chances of ethnic conflict increase in non-democratic countries more than in democratic countries and that ethnic conflict disappears at higher levels of socio-economic development. Vanhanen argues that ethnic nepotism is a part of human nature and has been an adaptive behaviour pattern of human societies (Vanhanen, 1999; p.66).

Causes of Nepotism:

According to Arasli et al. (2008) nepotism is likely to occur more frequently in small societies with the effect of other factors like “sociocultural, economic, educational and political structures that force people to support their close relatives or friends” (Arasli et al., 2006; p.295; Arasli et al., 2008; p.1238). Nepotism is an expected “result of the existing economic, cultural values, and educational system” (Arasli et al., 2006; p.305). Chances also increase in non-democratic societies (Vanhanen, 1999; p.66).

Hayajenh et al. (1994) conducted a study to examine the relationship between nepotism and certain organisational characteristics (size, ownership, and geographic region) in Jordan and Egypt. They contend that the main reasons behind nepotism in Arab countries include:

(1) Socio-cultural structure and behaviours: They indicated that the discovery of oil in Saudi Arabia has truly changed Arabia. Discovery of oil and the sudden increase in oil revenue, while solving some national problems created a new set of problems (e.g. decline in work ethic, conflicting values and changes in group alliances and social values). They indicate that an individual of desert origin exists as part of the kingship network and his welfare and fate depend on the actions of that network as a whole rather than upon his individual actions.

These values and norms encourage nepotism in Arab societies in order to fulfil the

individual's responsibilities toward his or her family. The tribal systems require a strong commitment from all individuals to their tribes, thereby allowing and encouraging nepotism if it concerns relatives.

(2) Economic structure: Since the basic economic structure is based on agriculture and limited industry the outcome of this structure is a high unemployment rate which calls for nepotism in finding job opportunities.

(3) Educational structure: Educational systems in most Third World countries were designed or influenced by the Colonial powers whose main objectives were to train local administrators and military personnel. This type of education was not helpful to economic development. Such educational systems created an imbalance in the labour market.

(4) Political structure: The public sectors in Arab independent states, like other less-developed countries, are the largest employers leaving little room for the private sector. These governments have assigned educated tribal chiefs and their sons to key public positions to buy their loyalties (Hayajenh et al., 1994; p.62).

Dwivedi (1967) views the associations in these countries such as “family, kinship, neighbourhood, village, ethnic origin and religious affiliations as the associational forms that have the first and the greatest call on individual loyalties”, and hence nepotism is still alive (Dwivedi, 1967; p.247).

To conclude, empirical studies investigating nepotism are very rare (Abdalla et al., 1998; p.554; Arasli et al., 2006; p.295; Arasli et al., 2008; p.1238; Hayajenh et al., 1994b; p.59; Laker and Williams, 2003; p.194; Padgett and Morris, 2005; p.34; Vinton, 1998; p.300). Former research on nepotism has proposed that “nepotism will have a negative effect on employee attitudes and perceptions” without empirically testing this impact (Laker and Williams, 2003; p.194). In order to better realise the importance of nepotism, it is recommended that cultural studies are to be undertaken in specific settings (Abdalla et al., 1998; p.554). In fact, there is a need “to go beyond anecdote and measure nepotism empirically” (Laker and Williams, 2003; p.191). Nepotism should be looked at from an “interdisciplinary perspective to truly understand the impact” it has

on society (Vinton, 1998; p.297).

The review of the literature on nepotism indicates there is still much to be studied and learned. In the beginning of this section we came across some definitions of nepotism which in general agreed it is giving or having an advantage based on the kinship and not on the merit. Then we discussed the positive (e.g. promoting friendly environment for businesses) and negative (e.g. lack of productivity and commitment) impact of nepotism. Methods used in studying nepotism were explored and resulted in finding survey questionnaire as the most used method. Finally, results of some empirical studies of nepotism were also presented.

The legal aspects of nepotism, in addition to its impact on human resource management appear to be the more reported issues. However, nepotism's impact on Information and Communication Technologies (ICT) has not been studied. This research aims to cover this gap by investigating to what extent nepotism, as one of Saudi Arabia's cultural values, impacts on e-service use in Saudi Arabia. As discussed in this section, negative effects are the most reported impact of nepotism. Furthermore, despite nepotism practices are hard to be documented, we can infer it is very common in Saudi Arabia. Saudi citizens, or potentially foreigners reside in Saudi Arabia, who practice nepotism are afraid of losing such facilitator in doing either legal or illegal business. In most cases, implementing e-services will lead to the disappearance of nepotism practices as business related decisions will be taken by the system only and no body else. Therefore, those who either like or take advantage of nepotism practices will deem they will not use or even intend to use e-services in an attempt to send indirect message to e-services developer/implementer that the system will not succeed and consequently prevent the implementation and use of e-services. Based on this we hypothesise that:

H1: Nepotism 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 nepotism (i.e. like nepotism or take advantage out of it) the less likely his intention to use e-service.

2.3.2.2 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 (Stromer-Galley, 2000).

Computer-mediated human interaction is prolonged interaction between two or more people through the channel of a computer network (Stromer-Galley, 2000; p.117). 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 (Chadhar and Rahmati, 2004; p.24). 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 (Gilbert and Balestrini, 2004; p.290). 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” (Loch et al., 2003; p.46). 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 (Loch et al., 2003; p.53).

Humans on average spend somewhere between 30-70% of their waking hours in social interaction (Levinson, 2006; p.41). 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 (Loch et al., 2003; p.51).

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 (Hornecker and Buur, 2006; p437). 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 (Hornecker and Buur, 2006; p439).

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) (Stromer-Galley, 2000; p.111). 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 (Stromer-Galley, 2000; p.122).

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 (Levinson, 2006; p.61). 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 our second hypothesis:**

H2: 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.

To conclude, it may appear the fear of a lack of interaction with other humans, and nepotism in our context are similar. In fact, they are not. The special consideration in the lack of interaction with other humans comes mainly from the sense of empathy and

not from sharing any kind of relationships that prompt favouritism and nepotism as a result.

2.3.2.3 Service-Oriented Culture:

It is extensively acknowledged that successful organisations need to have a customer-oriented business culture. This culture helps understand customer needs, which consequently lead to their satisfaction and increase in the organisation's productivity (Brady and Cronin, 2001; p.241). Service oriented culture is essential especially for firms in the service sector (Dimitriades, 2007; p.470).

There are various definitions for service orientation. It is "a set of basic individual predispositions and an inclination to provide service, to be courteous and helpful in dealing with customers and associates" (Cran, 1994; p.36). Another defined it as "the satisfaction of customer needs at the level of the employee-customer interaction" (Dimitriades, 2007; p.470). Relatively consistent with the latter, Hogan et al., (1984) view service orientation as "a set of attitudes and behaviours that affects the quality of the interaction between the staff of any organisation and its customers" (Hogan et al., 1984; p.167). It also "refers to the extent to which an organisation and the individuals within an organisation focus their efforts on understanding and satisfying customers" (Huff and Kelley, 2005; p.97). "Gronroos (1990) defined service culture as a culture where an appreciation for good service exists and where giving good service to internal as well as ultimate, external customers is considered a natural way of life and one of the most important norms by everyone" (Zerbe, Dobni, and Harel, 1998; p.168). Service orientation differentiates "between the maximum amount of effort and care that an individual could bring to his or her job, and the minimum amount of effort required to avoid being fired or penalized" (Berry et al., 1988; p.38).

Other studies focus on market orientation and the benefit to customers. Market orientation is "specific activities that translate the (marketing concept) philosophy into practice". It is the non-mandatory behaviours that produce performance (Gainera and Padanyi, 2005; p.855). "Market orientation is the organisational culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and thus, continuous superior performance for the business" (Narver

and Slater, 1990; p.21).

Internal customers are one of the marketing activities' targets. Internal marketing is a strategy of spreading service culture within an organisation through "promoting shared organisational values concerning customer service and service quality" (Zerbe et al., 1998; p.167). Employees with positive perceptions of HRM practices will also have strong commitment toward serving their organisations' customers. "It would be predicted that employees who have a greater sense of obligation toward a firm would provide higher quality of service" (Zerbe et al., 1998; p.174).

Services are intangible and thus a customer-oriented culture is identified by the behaviours of its employees. Some described service culture as "a willingness to go above and beyond or to go the extra mile" (Brady and Cronin, 2001; p.243). Service culture, according to Flynn (1988), has the following properties:

- The style in which customers are treated needs to be consistent. Style includes simple things such as the way in which people are greeted, the way telephones are answered, the way in which people are passed from the receptionist to the person who can help.
- All staff who come into contact with customers have to be trained to act in accordance with the style the organisation adopts. Ideally, frontline staff should be the main designers of the style and should play an important part in training new recruits.
- Everyone has to share the messages of the organisation so that they can transmit them to the customers.
- Services need to be redesigned to reflect changes in customers' preferences and the actions of the competition (Flynn, 1988; p.30).

Another way of identifying service culture is through exploring customers' expectations. According to Berry et al. (1988) customers expect the following five areas:

- Tangibles: the physical facilities, equipment, appearance of personnel;

- Reliability: the ability to perform the desired service dependably, accurately and consistently;
- Responsiveness: the willingness to provide prompt service and help customers;
- Assurance: employees' knowledge, courtesy and ability to convey trust and confidence;
- Empathy: the provision of caring, individualized attention to customers (Berry et al., 1988; p.37).

Brady and Cronin (2001) investigated the impact of customer orientation on service performance perceptions and outcome behaviours from a customer's point of view. Their results confirmed the direct relationship of customer orientation with customers' evaluations of employee service performance. Additionally, "customer-oriented" organisations were found to do better than non "customer-oriented" in terms of outcomes (quality, physical goods and employee performance) gained since they maturely anticipate the customers' needs (Brady and Cronin, 2001; p.241).

In their study, Brady and Cronin (2001) admitted that the lack of consideration to the organisational culture is one shortcoming in their model. They contend that this kind of culture (customer orientation) is positively linked to practicing the "marketing concept" which considers the customer as the focal interest. Management's aim in such cases is to intensively spread a customer orientation culture among their employees. The potential outcome of an organisation successfully adopts this culture in the development of "customers' response to the organisation's goods and services" (Brady and Cronin, 2001; p.243).

Dimitriades (2007) explored the relationship between service climate and job involvement in impacting customer-focused organisational citizenship behaviours (CO-OCB) of frontline employees in a diverse cultural context with focus on the service provider (Dimitriades, 2007; p.469). This research showed that cultural context may affect different aspects; organisational success being one of the most important. Dimitriades also calls for further investigation of the potential impact that cultural context might have on citizenship behaviour. Comparing Greek service organisations to

their counterparts in the US and other North/Western countries in the early 1980s, organisational citizenship behaviour (OCB) has been found to affect overall organisational effectiveness. The measurement of this construct focused on behaviours that were not stated in the job descriptions (e.g. those conceptualised by Graham (1991): organisational obedience, organisational loyalty and organisational participation), but have contributed to the organisational effectiveness (Dimitriades, 2007; p.471).

The studied organisational citizenship behaviour was identified through different characteristics. First, it must be non-mandated since many services require non-mandated employee behaviours that can be critical to customer service. Second, behaviour must be initiated by individuals not organisations, and third, contribute to the benefits of the organisation. The significant relationship found between service climate and CO-OCB indicates that the former creates perceptions among staff “to engage in customer-oriented organisational citizenship behaviours”. A key recommendation of this study indicates that “staffing practices need to be re-assessed as a workforce with enhanced customer-oriented organisational citizenship behaviours will be an important organisational asset and a greater source of competitive advantage over time” (Dimitriades, 2007; p.475 & 484).

Public and private sector are different in service orientation. In his study for consumer-oriented culture, Norman Flynn (1988) reported the need for the public sector “to stay close to the customer and to develop a consumer-oriented culture”. The public sector has some characteristics that differ from private and that obstruct the presence of a consumer orientation culture:

- “Some public sector organisations are effectively monopoly suppliers;
- There is less freedom to determine their own destiny;
- Objectives may be multiple and contradictory;
- Signals from consumers may be less direct than in the private sector;
- Service delivery requires co-operation among agencies;

- The definition of the organisation's purpose(s) is often done at many different levels" (Flynn, 1988).

Flynn has widely compared public and private sectors and inferred that for public sector to adopt private sector strategies in regard to customer orientation, they are first required to define "the relationship between the organisation and its stakeholders" (Flynn, 1988; p.27).

In an attempt to cover selection practices' issues emphasised by other studies, Frei and McDaniel (1998) examined the use of non-cognitive selection tests in identifying job applicants with service orientation. Although found not stable over time, they focus on the personality characteristics that are linked with good customer service performance through job analysis. For example: active customer relations, polite customer relations, helpful customer relations, personalized customer relations, virtuous, empathic, and sensitive (Frei and McDaniel, 1998; p.2). They conclude their work by indicating that the measurement of customer service orientation can positively contribute to an organisation's customer service strategy (Frei and McDaniel, 1998; p.24).

Culture is a major determinant of service orientation. Furrer, Liu, and Sudharshan (2000) argue that perceptions of service quality are different from one culture to another. They developed a Cultural Service Quality Index (CSQI) that evaluates the relative importance of the most used five dimensions of SERVQUAL (reliability, responsiveness, assurance, tangibles, and empathy) as a function of the five cultural dimensions proposed by Hofstede. 21 out of 25 of their hypotheses supported that culture has an important influence on service quality expectations and the relative importance of its five dimensions (Furrer et al., 2000; p.356).

Gainer and Padanyi (2005) studied the relationship between market-oriented activities and market-oriented culture in non-profit service organisations. They acknowledged the lack of market orientation in non-profit organisations. Employees of these organisations view "market focus as evil" (Gainer & Padanyi, 2005). The study focused on an important determinant of organisational performance, which is "client satisfaction". Their results showed a positive relationship toward the organisational performance and were consistent with 13 out of 19 studies reviewed in the same topic.

According to their study, there are two explanations of market orientation: “(1) values that are part of an organisation’s culture and (2) activities that implement the marketing concept”. The common mistake researchers make is that they consider one and neglect the other. They contend, in order to achieve “client satisfaction”, market orientation must be the dominant culture and when it is not, it should be gradually introduced (Gainer and Padanyi, 2005; p.854).

Huff and Kelley (2005) investigated the impact level of national culture on developing relationships between an organisation and its external partners. They have used one dimension of Hofstede’s cultural dimensions (individualism/collectivism) and then proposed hypotheses regarding national differences in the level of four measures: organisational members’ propensity to trust, internal and external organisational trust and customer orientation. They found that managers in the US have higher levels of trust and customer orientation than their counterparts in six Asian countries (South Korea, Japan, China, Taiwan, Hong Kong, and Malaysia). Two surprising findings: Malaysia was almost the same as the US in customer orientation level and Japan was the lowest between the six countries (Huff and Kelley, 2005; p.96). People from collective cultures may struggle to develop a good relationship with customers they do not personally know who are regarded as members of out-groups. This study shows variation between the seven studied countries on all of the measures, “and shows that organisations from individualist countries may have inherent advantages because of their culture in developing customer orientations and external relationships” (Huff and Kelley, 2005; p.100). However, this is not the case in collectivist countries. The common stereotype of jobs, especially in the public sector, in Saudi Arabia, is considered to be a financial source to cope with life expenses and not a way improve customer service.

Many researchers have studied the role of service orientation on increasing profitability. Narver and Slater (1990) found a positive effect of a market orientation on the profitability of business; regardless of the business type, the greater the market orientation of a business, the greater its profitability. While market orientation in some environments is uneconomic, the study’s scope comprises of three behavioural components: customer orientation, competitor orientation and inter-functional coordination along with two decision criteria: long term focus and profitability. One

aspect of customer orientation is for service providers to create value for their current and potential customers for the benefits of both parties (Narver and Slater, 1990; p.21).

Parasuraman (1987) believes that “the determinants of services marketing success are three crucial factors: customer orientation, consistency, and creed (the 3 C's)” (Parasuraman, 1987; p.40). It is hard for organisations that lack the culture of customer orientation to satisfy its customers especially if they do not care about their employees. A possible way to overcome this hurdle is by initiating a set of customer-oriented core values such as CARE (Customers Are Really Everything) concept, training and reinforcement program for employees (Parasuraman, 1987; p.44).

Saxe and Weitz (1982) developed a measure of the degree to which a salesperson engages in customer-oriented selling. Their review for the literature along with 25 interviews with salespeople and managers revealed the following characteristics of customer orientation:

1. A desire to help customers make satisfactory purchases decisions.
2. Helping customers assess their needs.
3. Offering products that will satisfy those needs.
4. Describing products accurately.
5. Adapting sales presentations to match customer interests.
6. Avoiding deceptive or manipulative influence tactics.
7. Avoiding the use of high pressure (Saxe and Weitz, 1982; p.344).

Zerbe, Dobni, and Harel (1998) found service culture as a primary driver of service behaviour. Studying staff of the airline service industry that directly interact with customers showed that service culture had a direct effect on self-reported service behaviour and that HRM practice perceptions had both a direct effect on self-reported service behaviour and an indirect effect through service culture. HRM practices were found to affect performance, productivity, organisational effectiveness and profits. They concluded that “human resource activities have a major impact on individual

performance and hence on productivity and organisational performance” (Zerbe et al., 1998; p.165).

Berry et al. (1988) provided recommendations on how to improve service orientation culture and contend they can be implemented through “a systematic step-by-step journey”. Organisations should state their service standards based on the customer expectations, then transform ideas provided by either employees or customers into reality, which in turn motivates companies to always keep service improvement in mind. Performance should be measured through all those standards and exceptional performance should be acknowledged. These steps, if implemented as a never-ending process, would increase the employees’ capability and willingness to perform. They conclude that attitudes, habits, knowledge, and skills of human beings cannot be rapidly changed, however intelligent business leaders can foster this change process by building a service-oriented culture (Berry et al., 1988; p.42).

Customer orientation is the basis for organisational learning that results in superior value attribution and greater customer satisfaction (Brady and Cronin, 2001; p.241). Businesses currently focus on the development of customer service, however they still neglect “the identification and assessment of service orientation prior to selection” (Cran, 1994; p.43). Organisations looking to implement customer orientation must start from the early stages of “personnel selection and placement”. Meanwhile, they are required to provide training programmes for the current employees in interpersonal skills (Cran, 1994; p.34).

Methods used to measure Service-Orientation:

Measurement of service orientation is a challenge especially in the non-profit sector. Compared to the profit sector that uses measures like Return On Investment (ROI), non-profit sector relies on non-quantitative measures (Gainera and Padanyi, 2005; p.854). Hogan, Hogan, and Busch (1984) wrote on how to measure service orientation in practical selection contexts. They have developed a measure of service orientation that mainly considers aspects of job performance like those unrelated to technical competence, but critical for maintaining good customer relations. The measures were derived from a personality inventory (Hogan, 1983) that is based on a theory of human

performance. They inferred that “service orientation is a syndrome containing elements of good adjustment, likeability, social skill, and willingness to follow rules” (Hogan et al., 1984; p.173).

Berry et al. (1988) conducted two phases in order to investigate service quality in four selected services: retail banking, credit cards, securities brokerage and appliance repair and maintenance. First phase was a qualitative study with focus-groups and face-to-face interviews with marketing, operations and customer-relations executives in each of the four companies. The second phase of the research was quantitative. In the second phase, five dimensions of service quality were used: “tangibles, reliability, responsiveness, assurance, and empathy”. Results from the first phase revealed that, “customers evaluate service quality by mentally comparing their perceptions of delivered services with their expectations of the service firms via ten distinct dimensions (reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer, tangibles)” (Berry et al., 1988; p.36).

Brady and Cronin (2001) argue that assessing customer orientation of an organisation should be driven by its customers. They have implemented this in their study by measuring customers’ opinion about two dimensions: “value and physical goods quality and customer orientation” (Brady and Cronin, 2001; p.244).

According to Cran (1994), Hogan, Hogan and Busch in 1984 introducing the Service Orientation Index (SOI) that contains 92-item extracted from the 310-item Hogan Personality Inventory (HPI). The scale is now compromised of 14 items classified under three subscales:

1. Empathy: a measure of ease and grace in interpersonal situations
2. Virtuous: a measure of prissiness and perfectionism
3. Sensitive: a measure of interpersonal sensitivity (Cran, 1994; p.38).

Dimitriades (2007) measured service orientation culture using the following seven items:

1. "I am assisting co-workers to deliver high-quality customer oriented services".
2. To serve my customers, I volunteer for things that are not required.
3. I make innovative suggestions to improve customer service.
4. I expend considerable energy to come up with creative ways to assist customers facing problems.
5. I attend functions that are not required but that help customer service.
6. I exchange ideas with colleagues on how to improve customer service.
7. I deal restlessly with customer problems until they are resolved" (Dimitriades, 2007; p.478).

Narver and Slater (1990) developed customer orientation measurement constructs with the following items: "customer commitment, create customer value, understand customer needs, customer satisfaction objectives, measure customer satisfaction and after-sale service" (Narver and Slater, 1990; p.24). Gainer and Padanyi (2005) adopted 12 out of the 15 items representing this construct. While they measured growth in client satisfaction and comparative satisfaction using items tested by Padanyi and Gainer (1998) (Gainer and Padanyi, 2005; p.859).

Zerbe et al. (1998) surveyed a sample of airline employees who directly interact with customers. They focused on the kind of service culture the company has and the employees' self-reported service behaviour between various other aspects. They reported that "the use of this self-report measure relies on the honesty of respondents in describing their behaviour toward customers. Employees may choose to describe their behaviour toward customers in unrealistically positive terms so as to appear to be good employees" (Zerbe et al., 1998; p.171).

In conclusion, service orientation is found to produce beneficial outcomes either for profit or non-profit organisations. This section discussed various definitions and explanations of the term, then explored some studies that investigated the topic, and finally the method used to measure service orientation in order to guide the research.

Many researchers refer to the importance of a service culture but few have formally defined or put the construct into operation (Zerbe, et al., 1998; p.168). The presence of service orientation is considered as a means of retaining and satisfying customers (Dimitriades, 2007; p.476; Parasuraman, 1987; p.41) and should be prompted within organisations. This kind of cultural change requires time and tangible actions rather than only written policies (Parasuraman, 1987; p.44; Fertman, 1996; p.45). “It would be predicted that employees who have a greater sense of obligation toward a firm would provide higher quality of service” (Zerbe et al., 1998; p.174). High quality service will increase with respect to an increase in the willingness of Saudi employees to use e-services. Thus, we propose the following:

H3: Service Oriented Culture is a positive predictor of intention to use e-services in Saudi Arabia.

2.3.2.4 The Employee commitment:

Commitment has been discussed extensively in the management literature. The review starts by defining organisational commitment, exploring some of the differences between public and private sector and whether commitments vary across them or not, providing some recommendations on how to improve commitment, before introducing our research hypothesis.

Organisational commitment is defined as the strength of an individual’s identification and involvement within an organisation. It also includes feelings of affiliation, attachment and citizenship behaviour. Organisational commitment is crucial for both individual and organisational outcomes. Positive organisational commitment tends to improve organisational efficiency and effectiveness by contributing to resource transformations, innovativeness and adaptability (Zeffane, 1994; p.978). In fact, Arasli et al. (2006) view casual relationships between human resource management and commitment. The lack of adequate practices of HRM leads to a lack of “commitment and loyalty toward the organisation” and the opposite is correct (Arasli et al., 2006; p.297).

Organisational commitment in Laker and Williams’ view (2003) represents:

1. The extent to which the employee identifies with the organisation and its goals,

and

2. The desire to retain membership in the organisation and continue to pursue its goals (Laker and Williams, 2003; p.195).

According to Shaw and Clark (1971) public employees before 1945 were better off than their counterparts in private sector. However the Second World War caused an enormous change to this. Unions of private sector employees fought for and accomplished “wage increases and fringe benefits surpassing those received by public employees” (Shaw and Clark, 1971; p.867). Public sector currently differs from private sector in various manners:

1. “Government organisations typically do not pursue profit maximization and do not face competitive market forces;
2. It is particularly hard to measure individual and aggregated performance, and multiple tasks typically are assigned to government agencies” (Scoppa, 2009; p.167).
3. It has “vague, unclear, or ambiguous goals and objectives;
4. It has more frequent leadership turnover;
5. It has fewer quantitative indicators of demand and fewer performance measures that enhance the clarity of goals” (Flynn and Tannenbaum, 1993; p.104).

Karl and Sutton (1998) investigated the relative importance that current public and private sector employees place on job values. Their study found private sector employees place higher value on monetary rewards than public sector employees, while public sector employees are more concerned with job security. However, private sector employees are better in “sympathetic help on personal problems” than their counterparts in the public sector. On the other hand, the most important job value for public sector employees “was interesting work”. In general, they reported that, “public sector employees are less satisfied than their private sector counterparts” (Karl and Sutton, 1998; p.517).

Scoppa in (2009) studied the intergenerational transfer of public sector jobs in Italy. As in many other countries, public sector jobs in Italy are attractive to job seekers. Wages are one of the attractions as they are about 20% higher in public sector than in private sector. Public employees enjoy greater job security and more favourable working conditions. These features encourage relatives to use their positions to help each other in gaining access to these jobs. Scoppa (2009) found “if the father is a public employee the probability of his child working in the same sector is increased by a huge 44%” (Scoppa, 2009; p.167). This kind of practice (i.e. favouring relatives in gaining job access) is more common in collective societies where family ties are very strong. As a result low skilled, uncommitted employees are hired in the public sector. Furthermore, Scoppa (2009) contends:

Favouritism represents a failure of meritocracy: the officials responsible for the selection procedures who favour the lower skilled sons/daughters of incumbent employees over more talented candidates impose a cost on the ultimate principal, that is, society as a whole, by worsening the performance of public organisations. This could explain the extremely low quality of public services in Italy (Scoppa, 2009; p.182).

Padgett and Morris (2005) compared employees who were recruited with the help of nepotism with those who were chosen based on their merit. They found that the latter “expressed a greater degree of commitment to the organisation” than the former (Padgett and Morris, 2005; p.41).

In comparing employees’ commitment levels with respect to their sector (public / private), Buelens and Broeck (2007) conducted an extensive literature review. Some studies found public sector employees to have a lower level of organisational commitment (34 empirical studies on public sector managers reviewed by Boyne, 2002), whereas some other studies found private sector employees to have low levels of commitment and a third stream found no differences between the two groups. The reported low level of commitment in public sector jobs was related to the employees’ “willingness to expend extra effort”. Buelens and Broeck conclude that such comparison is not sufficient to judge the commitment levels in both public and private sector

(Buelens and Broeck, 2007; p.66).

The differences between public and private sector are seen in various aspects. It has been stated in Buelens and Broeck (2007) that “organisational or national cultures can explain many differences” (Buelens and Broeck, 2007; p.68). In fact, management culture by top management actions are strongly related to the degree of employee commitment and that these effects vary for different organisational settings. The more structured a situation, the more committed employees tend to be to the organisation (Zeffane, 1994; p.980). Another aspect could be the job itself and not the sector. For instance, some jobs lack motivation toward commitment due to its content or the organisational structure. Public sector employees do not have control over such factors. Meantime they cannot be blamed since they choose to work for the public sector. They made “a positive choice by choosing a well-balanced life, as they want respect for their own working rhythms, their personal lives, their quality time, and their family priorities” (Buelens and Broeck, 2007; p.68).

Flynn and Tannenbaum (1993), driven by the lack of studies that consider the effect of the specific organisational sector on commitment, investigated the relationship between job characteristics and commitment considering sector as a moderator. Much of the work they reviewed implied that factors such as: job characteristics, personal characteristics (e.g. age, gender, education, position) and values, ambiguity, autonomy and challenge to affect commitment. Consistent with those studies, their work found job characteristics have an impact on commitment. This impact when considering the sector (public/private) was additionally explained by 11.5% of the variance. Managers in both sectors have many differences, however those differences found to be deeper amongst private sector managers, which “is consistent with common conceptions of public sector bureaucracies” (Flynn and Tannenbaum, 1993; p.103).

Lyons, Duxbury, and Higgins (2006) researched the differences in general values (achievement, benevolence, conformity, hedonism, power, self-direction, security, stimulation, tradition and universalism), work values and organisational commitment between employees across sectors (public, private, parapublic). Private sector employees demonstrated higher organisational commitment than employees in the

other remaining sectors. An explanation of this could be the possible variations in organisational structure. Public sector employees instead of directing their commitment to the department they work for, direct it to the whole organisation, which makes their commitment “less obvious”. Interestingly, the general answer for Lyons et al. (2006) research question is negative for “there were limited overall differences in the values of employees from the various sectors”. They conclude by calling for repetition of their work in other national contexts to better understand the nature of the value differences in the different organisational sectors. (Lyons et al., 2006; p.613).

Zeffane (1994) compared patterns of organisational commitment and perceived management style between public and private sector employees in Australia. Commitment in this study includes the notion of corporate loyalty/citizenship and the notion of attachment to the organisation. The results unsurprisingly revealed that public sector employees are relatively less committed to the goals and values of their organisations than their private sector counterparts. It also highlights the bureaucratic culture as the dominant culture in the public sector organisations (Zeffane, 1994; p.977).

Consistent with many other studies, Rainey and Bozeman (2000) view public sector organisations with “greater goal complexity and ambiguity” than private sector. They contend this is an observable issue around the globe and not specific to a country or context. They state, “everyone appears to agree that public managers face more complex, hard-to-measure, ambiguous goals” (Rainey and Bozeman, 2000; p.45).

On the contrary, Buelens and Broeck (2007) study shows public sector employees to have “a stronger service ethic” than their counterparts in private sector. They contend that public sector employees are committed to serve the public interest and to achieve social justice. Additionally, they found some of public sector employees prefer their work as it has a “more balanced life with less work – family conflict”. On the other hand, “others show high degrees of work commitment and organisational citizenship behaviour, putting in extra time and effort” (Buelens and Broeck, 2007; p.65).

Improving commitment and performance as a result demands capable, professional and ethically strong staff (Arasli et al., 2008; p.1239). Flynn and Tannenbaum (1993)

suggest “an internalization of the organisation's values, a willingness to help the organisation achieve its goals and a strong desire to maintain membership” (Flynn and Tannenbaum, 1993; p.104). Employee commitment and attachment to the organisation can also be increased through efforts to improve the organisation’s social atmosphere and sense of purpose, the removal of bureaucratic barriers and the creation of more flexible structures. Zeffane (1994) argues that improving organisational commitment does not guarantee improvement in employee effort and performance (Zeffane, 1994; p.982).

To conclude, committed employees are critical to the fulfillment of organisational mandates (Lyons et al., 2006; p.616). However, there is still a gap between perceived and desired organisational culture that motivates commitment (Zeffane, 1994; p.998). The above review of the literature emphasized the effect of culture, with various other factors, on commitment. Regardless of the differences mentioned between public and private sector employees in commitment, all employees with high level of commitment are eager to adopt new technologies, like e-services, that positively contribute toward their organisations. This leads us to our fourth research hypothesis:

H4: Employee commitment is a positive predictor of intention to use e-service in Saudi Arabia.

The expected outcome of this hypothesis is: the more an employee scores on commitment the more likely they will intend to use e-service.

2.4 Critical Success Factors (CSFs):

An effective method to predict the impact of culture on e-service use is by conducting an environmental investigation. It enables the business to be updated on what is going on, how business changes and characterises the critical industry and consumer issues to ensure the right decisions are made (Kalakota and Robinson, 2001; p.404; Weill and Vitale, 2001; p.33). Moreover, Alwabel and Zairi (2005) added that organisations should regularly check the current level of performance on an ongoing basis in each of the critical business areas to ensure the right decision-making. The results of this process should be available for public. The critical success factors (CSFs) is an appropriate technique to do so (Alwabel and Zairi, 2005; p.5). Below is a definition for CSFs made

by Leidecker and Bruno (1984; p.24):

Critical Success Factors (CSF's) are those characteristics, conditions, or variables that when properly sustained, maintained, or managed can have a significant impact on the success of a firm competing in a particular industry.

The critical success factors have similarities and differences and have such an importance there will be a review for some of the CSFs identified in various areas of the literature (e.g. e-business, e-commerce, Enterprise Resource Planning etc.).

Dubelaar et al. (2005) defined and classified the CSFs into three main categories: strategic, structural and management-oriented factors will help understand the full advantages of the e-service use. They identified the critical success factors in e-business adoption as: "combining e-business knowledge, value proposition and delivery measurement, customer satisfaction and retention, monitoring internal processes and competitor activity and finally building trust" (Dubelaar et al., 2005; p.1252).

While Taylor and Murphy (2004) count the critical success factors within any SMEs as: "owner motivation, expertise in managing growth, access to resource, innovation, close contact and focus on profit, strong demand". In addition it has been identified that there are eleven success factors classified under three main categories with respect to the level of relevance: those relevant to all companies in e-commerce (content, convenience, control and interaction), those relevant to companies in same industry (community, price sensitivity) and those relevant to individual companies (brand image, commitment, partnership, process improvement and integration) (Taylor and Murphy, 2004; p.286).

In Pakistan the success of e-business strategy like any other e-business strategy requires: clarifying the objectives; developing knowledge and training; enabling technology; replanning business processes and rules; identifying security issues; recruitment; transition from traditional to e-business; cooperating with other businesses; constant management development programs to keep updating e-business systems and integration of these plans with the business objectives (Kundi and Shah, 2007; p.17).

Shah et al. (2007; p.511) contend that CSFs in e-banking are: immediate responsive service, organisational flexibility, services growth, systems integration and improved customer services. Top leadership support is another critical success factor. The strategic level factors are more important than either operational or technical however they all should be integrated. With respect to management support Wargin and Dobiéy (2001; p.72) see it as “the most critical aspect of the digital economy”.

The willingness of consumers and vendors to engage in electronic connections in Burn and Ash (2005; p.1093) and Pai and Yeh (2008; p.687) is seen as the start point of successful e-service project. Some of the key findings through these two studies are: the importance of leadership for successful e-service transformation, “an organisation’s vision for change must be embraced throughout all levels of the organisation and measurement is a means to success”.

Dubelaar et al. (2005) have identified six major critical success factors from the business to customer case studies. These are:

- Combining e-business knowledge and value proposition,
- Replication of offline brand,
- Building trust,
- Measuring performance and value delivery (better able to respond to customer needs and changing market requirements),
- Customer satisfaction and retention (successful online companies tend to direct their attention to customer satisfaction and retention),
- Monitoring internal processes and competitor activity (Dubelaar et al., 2005; p.1259).

The critical success factors identified by Bhatti (2005) are: project management, process redesign, user training, technological infrastructure, change management, risk management, top management support, communication, team work, user involvement, use of consultant, clear goals and objectives (Bhatti, 2005; p.2). Further, Delone and

McLean (2003) recommended adding “service quality” as a significant dimension of Information Systems success particularly in the e-commerce environment where customer service is vital (Delone and McLean, 2003; p.27).

In the implementation shakedown phase as named by Markus et al. (2000) firms face many problems such as: performance problems, enlarged staffing required to handle delays and errors, clients and vendors unanswered queries about shipments and payments and inadequate management reporting. Beyond the control of the ERP project team there are pre-existing organisational challenges that intimidate ERP success. These can be identified as: business lack of results orientation, culture resistant to change (Markus et al., 2000; p.261).

In Bingi et al. (1999) study, if successful ERP implementation is to be achieved top management commitment, process reengineering, systems capability and integration, adequate professional and workforce should be considered. These must be accompanied with the general organisation employees’ commitment and preparation before the software implementation (Bingi et al., 1999; p.7). Markus et al. (2000) added success in an ERP experience is not a prearranged list of success factors that begins and continues without change, there are often strong negative influences on a firms’ compliance to continue with the ERP experience. It is necessary to follow up and resolve problems experienced all through the implementation stages. Unresolved issues from one stage could negatively effect and become “the source of problematic outcomes” at the next stage. Waiting to fix these problems until they become visible can be “a recipe for failure” (Markus et al., 2000; p.259).

To wrap up, CSFs were reviewed here as its ability to predict the impact of various issues (e.g. culture) on business related matters. This can be done by continuously investigating the current status of business, from industry and consumer point of view, and help to take critical decisions related to both involved parties (Kalakota and Robinson, 2001; p.404; Weill and Vitale, 2001; p.33; Alwabel and Zairi, 2005; p.5).

2.5 Technology Acceptance Model (TAM):

Derived from different disciplines (Halawi and McCarthy, 2008; p.96), the need for a valid system usage measurement moved Davis (1989) to propose the Technology

Acceptance Model (TAM). TAM uses the Theory of Reasoned Action (TRA) as a theoretical basis for specifying the causal linkages between its variables (Davis et al., 1989; p.983). The aim of this Information Systems model (McCoy et al., 2007; p.82) “is to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behaviour across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified”. Additionally, it “provides a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions” (Davis, Bagozzi, and Warshaw, 1989; p.985). This model hypothesises has two variables, namely: Perceived Usefulness (PU), and Perceived Ease of Use (PEOU) are major “determinants of user acceptance”. He built, pre-tested, and validated the new scale by conducting two different studies (Davis, 1989; p.319).

In the first stage, people have a tendency to either use or not to use a system because they think it will be useful for their job duties. This makes the first hypothesised variable of Davis’s model; perceived usefulness (PU). He defines this variable as, “the degree to which a person believes that using a particular system would enhance his or her job performance” (Davis, 1989; p.320). Employees link their thinking of usefulness of the system “to achieving various rewards ... such as pay increases and promotion” (Davis et al., 1989; p.986). This factor (PU) has stood as a stronger determinant of Intention to Use than the second one (PEOU) as supported by much research (Davis et al., 1989; p.1000; Gefen, Karahanna, and Straub, 2003; p.318; Venkatesh and Davis, 2000; p.195). This introduces our fifth hypothesis:

H5: Perceived Usefulness is a positive predictor of Intention to Use e-service in Saudi Arabia.

In the second stage however, whilst people think the system would be useful for their job duties, they also think it is difficult to be use. Thus, the second variable of the model is called perceived ease of use (PEOU). Davis (1989) defines this variable as, “the degree to which a person believes that using a particular system would be free of effort”. The ease of system use has been emphasised by many of Human Computer Interaction (HCI) researchers (Davis, 1989; p.320). The sixth hypothesis of our research is:

H6: Perceived Ease of Use is a positive predictor of Intention to Use e-service in Saudi Arabia.

Davis (1989) in his procedure to build the new measurement scale initially devised fourteen items to measure perceived usefulness (Table 6) and another fourteen to measure perceived ease of use (Table 7). The scale of each one of those two variables was developed “based on their conceptual definitions” and pre-tested by conducting two separate studies. The results were then used “to assess the relationship between usefulness, ease of use and self-reported usage” (Davis, 1989; p.323).

| No. | Item |
|-----|--|
| 1 | My job would be difficult to perform without electronic mail |
| 2 | Using electronic mail gives me greater control over my work |
| 3 | Using electronic mail improves my job performance |
| 4 | The electronic mail system addresses my job-related needs |
| 5 | Using electronic mail saves me time |
| 6 | Electronic mail enables me to accomplish tasks more quickly |
| 7 | Electronic mail supports critical aspects of my job |
| 8 | Using electronic mail allows me to accomplish more work than would otherwise be possible |
| 9 | Using electronic mail reduces the time I spend on unproductive activities |
| 10 | Using electronic mail enhances my effectiveness on the job |
| 11 | Using electronic mail improves the quality of the work I do |
| 12 | Using electronic mail increases my productivity |
| 13 | Using electronic mail makes it easier to do my job |
| 14 | Overall, I find the electronic mail system useful in my job |

Table 6: Initial Scale Items for Perceived Usefulness

| No. | Item |
|-----|---|
| 1 | I often become confused when I use the electronic mail system |
| 2 | I make errors frequently when using electronic mail |
| 3 | Interacting with the electronic mail system is often frustrating |
| 4 | I need to consult the user manual often when using electronic mail |
| 5 | Interacting with the electronic mail system requires a lot of my mental effort |
| 6 | I find it easy to recover from errors encountered while using electronic mail |
| 7 | The electronic mail system is rigid and inflexible to interact with |
| 8 | I find it easy to get the electronic mail system to do what I want it to do |
| 9 | The electronic mail system often behaves in unexpected ways |
| 10 | I find it cumbersome, to use the electronic mail system |
| 11 | My interaction with the electronic mail system is easy for me to understand |
| 12 | It is easy for me to remember how to perform tasks using the electronic mail system |
| 13 | The electronic mail system provides helpful guidance in performing tasks |
| 14 | Overall, I find the electronic mail system easy to use |

Table 7: Initial Scale Items for Perceived Ease of Use

The two remaining variables of TAM are current usage and future usage. Davis (1989) in his first study of two systems used at “IBM Canada’s Toronto Development

Laboratory” measured the current use of these two systems by “six-position categorical scales”. These are: “do not use at all, use less than once each week, use several times each week, use about once each day and use several times each day” (Davis, 1989; p.329). The future use was measured in the second study “by two seven-point scales”. The question asks about the prediction of using a potential system in the future. The first seven-point scale was with likely-unlikely, while the other was improbable-probable (Davis, 1989; p.331). The seventh hypothesis of our research appears here:

H7: Intention to Use is a positive predictor of Actual Use of e-service in Saudi Arabia.

Technology Acceptance Model (TAM) has been extensively used in the literature (Lee et al., 2003; p.768; Bagozzi, 2007; p.244; Voros and Choudrie, 2011; Cardon and Marshall, 2008; p.106; Venkatesh and Bala, 2008; p.274). The mainstream for users of this model was organisations, however “it has been adopted in a variety of different settings” (Connon, 2007; p.97; McCoy et al., 2007; p.87). Lee et al. (2003) examined 101 articles published between 1986 and 2003 and concluded that these studies have contributed to the development of the model and helped to overcome its shortcomings since it has been applied in different contexts (Lee et al., 2003; p.768; Gefen et al., 2003; p.309). In addition, Deng et al. (2005) reached the same conclusion after studying forty TAM studies (McCoy et al., 2007; p.82). However, it seems this amount of studies has not “considered” the cultural characteristics of “usage” (Bagozzi, 2007; p.247; Davis et al., 1989; p.999) that creates value for this study.

Reasons for measuring technology acceptance from research and professional perspectives are numerous. According to Davis et al. (1989), it is a way to assess the success of new technologies and predict the reaction of potential users (Davis et al., 1989; p.982). Additionally, organisations need to predict the use of e-service “for establishing not only specific IT choices, but a strategic IT direction as well” (Connon, 2007; p.94). Further, failure to accept new information technologies may result in financial consequences. Venkatesh and Bala (2008) reported “two high-profile examples” of this: Hewlett-Packard (HP) with \$ 160 million in 2004 and Nike with \$ 100 million and 20% drop in stock price in 2000 (Venkatesh and Bala, 2008; p.274).

According to Venkatesh and Bala (2008), studies that previously adopted TAM can be categorised into three different groups. First, those who replicated the original model aiming at validation. The second group concentrated on the theoretical foundation of the major determinants of TAM, perceived usefulness and perceived ease of use. The third and final group is the researchers who attempted to include additional factors to the original model. The latter efforts resulted in TAM2 and TAM3. Figure 1 shows their comprehensive framework of TAM studies (Venkatesh and Bala, 2008; p.276).

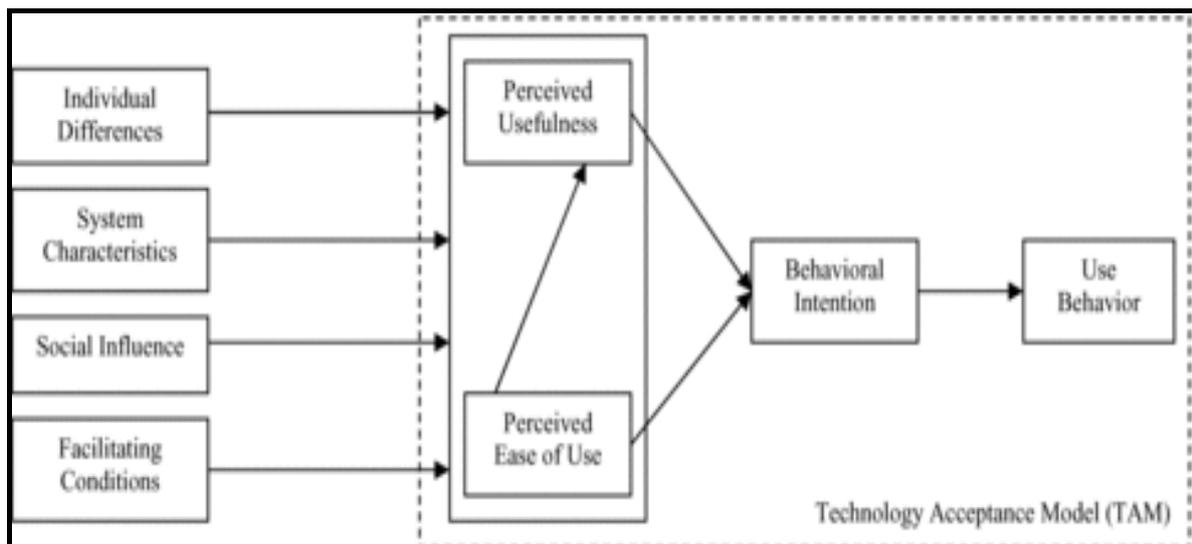


Figure 1 theoretical framework of Venkatesh and Bala (2008)

Previous works have investigated “the effects of cultural variables on the Technology Acceptance Model” (Voros and Choudrie, 2011; McCoy et al., 2007; p.82). McCoy (2002) has studied the impact of national culture (represented by Hofstede’s five dimensions) on TAM. He concluded based on the data obtained that there is a significant relationship “between the TAM variables between those scoring high and low on each of the cultural dimensions” (McCoy, 2002). His study was the “most ambitious” in this context (Cardon and Marshall, 2008; p.105). Al-Somali et al. (2009) study proposes the application of TAM to capture factors that have significant impact on the acceptance of online banking and use of technology (UTAUT) that integrates eight previously established models on individual acceptance of IT. They state that four elements play a significant role as direct factor of user acceptance and usage behaviour, namely: performance expectance, effort expectance, social influence and facilitating conditions.

TAM has limitations. According to Bagozzi (2007), most of the researchers that used this model failed to explain the two main determinants of the model: Perceived usefulness and Perceived Ease of Use. He thinks that “the IS field risks being overwhelmed, confused, and misled by the growing piecemeal evidence behind decision making and action in regard to technology adoption/acceptance/rejection”. Additionally, TAM neglects the collective facet of decision-making process (Bagozzi, 2007; p.244), and has “the lack of actionable guidance to practitioners” as “one of the most common” shortcomings of TAM (Venkatesh and Bala, 2008; p.274).

From about four thousand students in different universities around the world, McCoy et al. (2007) draw the conclusion that “TAM did not hold across all cultural groups”. They warrant the use of TAM especially in cultural groups that have low level of Uncertainty Avoidance and high score on Power Distance, Masculinity and collectivism in Hofstede’s cultural indicators. They provided a list of countries that were not included in their study and have potential risks using TAM (McCoy et al., 2007; p.87).

The gap between intention to use and actual use is another weakness of TAM. Individuals rapidly alter their views about new technologies (Venkatesh and Bala, 2008; p.302). Moving from intention to actual use usually consumes time and effort since most users need to be convinced by various factors. Hence, “it is important to consider various psychological and instrumental steps that go on between intention formation and action initiation”. An effective way to fill this gap is by planning (Bagozzi, 2007; p.245; Davis et al., 1989; p.997).

In an attempt to overcome the shortcomings of TAM, Venkatesh and Davis (2000) presented TAM2.

The goal was to extend TAM to include additional key determinants of TAM’s perceived usefulness and usage intention constructs and to understand how the effects of these determinants change with increasing user experience over time with the target system. Using TAM as the starting point, TAM2 incorporates additional theoretical constructs spanning social influence processes (subjective norm, voluntariness and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability and perceived ease of use)

(Venkatesh and Davis, 2000; p.187).

Eight years after the attempt to strengthen the first version of the Technology Acceptance Model, a third version was introduced. TAM3 “suggests that experience will moderate the relationships between (1) perceived ease of use and perceived usefulness, (2) computer anxiety and perceived ease of use and (3) perceived ease of use and behavioural intention” (Venkatesh and Bala, 2008; p.281). Different from the previous two versions, TAM3 has “its comprehensiveness and potential for actionable guidance” (Venkatesh and Bala, 2008; p.301).

As indicated before, TAM here is used because of its potency to predict and evaluate the success of new technologies for both implementers and users (Davis et al., 1989; p.982). This in return helps businesses establishing “a strategic IT direction” (Connon, 2007; p.94), and avoid financial problems (Venkatesh and Bala, 2008; p.274). Users, on the other hand, can better deliver their views on the potential technology through TAM as confirmed by many studies.

2.6 Chapter Conclusion:

A review of the literature has helped the researcher to identify some of the barriers to e-service use and implementation in Saudi Arabia as well as around the globe. Those are: **cost** (Al-Shehry et al., 2006; Cheng et al., 2001; p.68; Jones et al., 2003; p.18; Khalfan and Akbar, 2006; p.296; Kim et al., 2007; p.353; Kundi and Shah, 2007; p.2; Taylor and Murphy, 2004; p.285; Chappell and Feindt, 1999), **strategy** (Jones et al., 2003; Kalakota and Robinson, 2001; p.454; Alwabel and Zairi, 2005; p.7; Al-Shehry et al., 2006; Keoy et al., 2006; p.114; Dubelaar et al., 2005; p.1253; Kong, 2003; p.55) **strategic planning** (Al-Alawi et al., 2005; p.612; Al-Shehry et al., 2006; Al-Alawi and Kuzic, 2007; p.473; Zaied et al., 2007; p.77; Kundi and Shah, 2007; p.7; Kabasakal and Bodur, 2002; p.51), **awareness** (Kim et al., 2007; p.353; Al-Alawi et al., 2005; p.612; Al-Alawi and Kuzic, 2007; p.473; Taylor and Murphy, 2004; p.285; Aranda et al., 2005; Jones et al., 2003; p.18; Al-Somali et al., 2009; p.2; Khalfan and Akbar, 2006; p.296), **commitment** (Kalakota and Robinson, 2001; p.454; Kim et al., 2007; p.353; Cheng et al., 2001; p.68; Aranda et al., 2005; Alwabel and Zairi, 2005; p.7), **the lack of organisational capability and resources** (Al-Shehry et al., 2006; Al-Alawi et al., 2005; p.612; Chappell and Feindt,

1999; Jones et al., 2003; p.9; Keoy et al., 2006; p.115; Siriluck and Mark, 2005; p.12; Al-Otaibi and Al-Zahrani, 2004; p.31; Kim et al., 2007; p.351; Alwabel and Zairi, 2005; p.7; Khalfan and Akbar, 2006; p.296; Zaied et al., 2007; p.77), **time** (Chappell and Feindt, 1999; p.8; Jones et al., 2003; p.18; Al-Alawi et al., 2005; p.612), **the absence of collaboration between organisations involved in the implementation** (Al-Alawi et al., 2005; p.612; Al-Shehry et al., 2006; Zaied et al., 2007; p.77), **the lack of legislative support** (Al-Shehry et al., 2006; Jones et al., 2003; p.18; Keoy et al., 2006; p.115; Siriluck and Mark, 2005; p.12; Taylor and Murphy, 2004; p.285; Zaied et al. 2007; p.77; Alwabel and Zairi, 2005; p.7), **security** (Al-Alawi et al., 2005; p.612; Keoy et al., 2006; p.117), **education** (Al-Shehry et al., 2006; Khalfan and Akbar, 2006; p.296; Kundi and Shah, 2007; p.7; Jones et al., 2003; p.18), **resistance to change** (Al-Shehry et al., 2006; Markus, 2005; p.377; South-Western, 2005; Wargin and Dobiéy, 2001; p.73; Siriluck and Mark, 2005; p.12; Cheng et al., 2001; p.75; Al-Somali et al., 2009; p.2), **and different priorities and expectations** (Aranda et al., 2005; Khalfan and Akbar, 2006; p.296; Taylor and Murphy, 2004; p.282; Kim et al., 2007; p.351).

Among those barriers to e-services is the **impact of culture** which is the most important factor (Al-Alawi et al., 2005; p.612; Al-Somali et al., 2009; p.2; Alwabel and Zairi, 2005; p.7; Khalfan and Akbar, 2006; p.296; Kundi and Shah, 2007; p.2; Taylor and Murphy 2004; p.282; Al-Shehry et al., 2006; Arranda et al., 2005; Siriluck and Mark, 2005; p.12; Chappell and Feindt, 1999; p.8; Al-Alawi and Kuzic, 2007; p.473; Gargeya and Brady, 2005; Pai and Yeh, 2008; p.687; Deitel et al., 2001; p.344). Culture is much more dynamic and emergent than has been said in much of the literature (Ali et al., 2008; p.8; Voros and Choudrie, 2011). The scarcity of cross-cultural research compared to the unresolved practical and hypothetical issues may be explained by methodological and resource complications and the amount of time required to complete this kind of research (Straub, 2002; p.13). In Saudi Arabia many cultural studies were conducted a long time ago and there is a need to verify whether or not these results are still valid (Al-Shehry et al., 2006). Most of these studies used the Hofstede cultural dimensions that were introduced more than three decades ago and there is doubt about its applicability after such a long time (Voros and Choudrie, 2011). It is not just an issue for Saudi Arabia as there is a lack of research in relation to the use of ICTs in most Arab

countries or even the developing countries in general (Al-Alawi and Kuzic, 2007; p.472). This study aims at covering some of that gap by investigating the impact of the previously discussed four Saudi cultural values (nepotism, fear of a lack of interaction with other humans, service oriented culture, and employee commitment) on e-service use.

Part of the benefits gained from reviewing the literature was also an awareness of how to conduct a cross-cultural research. The aim is to continue the research from where others' ended and not from the beginning, and to learn from previous mistakes and avoid them. This is backgrounded, explained, and justified in details in the next chapter, the methodology chapter.

To conclude, issues related to the implementation and use of e-service have been a major problem to organisations in the entire world. Unfortunately, there are many organisations throughout the world that have failed to achieve a successful e-service use, and this is especially true in developing countries. This literature review focused on some of the reasons behind this that organisations in Saudi Arabia face. Furthermore, this research highlighted some of the cultural and environmental differences between organisations in leading countries and developing countries. The issue of electronic service use "is not a one-man show" (Zaied et al., 2007; p.80, 85); all businesses either public or private should cooperate to search the appropriate method to establish special e-culture strategies. Successful organisations should concentrate on improving their services and product quality and need not get stuck with the fear of an unknown future (Wargin and Dobiéy, 2001; p.82).

Chapter 3: Research Design

3.1 Chapter Introduction:

It is vital to define the research problem clearly in order to guarantee a clear vision of the problem. Chapters one and two have done this by clearly stating the research problem which aims to identify the cultural values that impact on e-service use in Saudi Arabia. In this chapter a map of the research design will be drawn. "Research designs are procedures for collecting, analysing, interpreting and reporting data in research studies. They represent different models for doing research and these models have distinct names and procedures associated with them. Research designs are useful because they help guide the methods and decisions that researchers must make during their studies and set the logic by which they make interpretations at the end of their studies" (Creswell and Clark, 2011; p.53). The structure of this chapter will start by stating the research question and hypotheses, followed by justifying the use of this method in our research context and background about mixed-methods approach in general, then the research plan. The aim, sample, and procedure for both of the approaches (qualitative and quantitative) implemented will be presented. Finally a summary of the chapter is provided in order to create a base line picture for researchers interested in extending or applying this research to another context.

3.2 Research Question:

Based on an extensive review of the literature, culture has been widely addressed as an obstacle to e-service use (Al-Shehry et al., 2006; Alwabel and Zairi, 2005; Ali et al., 2006; Ali et al., 2008; Davison, 2002; Straub et al., 2001; Aranda et al., 2005; Chadhar and Rahmati, 2004; Chappell and Feindt, 2000; Kundi and Shah, 2007; Merritt, 2000). However, values that construct culture have not attracted the same attention especially in the Saudi context.

This study aims to answer the research question:

To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how?

The following hypotheses are proposed in order to answer the research question:

H1: Nepotism is a negative predictor of intention to use e-services in Saudi Arabia.

H2: The fear of a lack of interaction with other humans is a negative predictor of intention to use e-services in Saudi Arabia.

H3: Service Oriented Culture is a positive predictor of intention to use e-services in Saudi Arabia.

H4: Employee Commitment is a positive predictor of intention to use e-services in Saudi Arabia.

H5: Perceived Usefulness is a positive predictor of intention to use e-services in Saudi Arabia.

H6: Perceived Ease of Use is a positive predictor of intention to use e-services in Saudi Arabia.

H7: Intention to Use is a positive predictor of Actual Use of e-service in Saudi Arabia.

3.3 Applying a Mixed-methods approach:

In the next few paragraphs there will be a review of some studies that used Mixed-methods previously. Then, justification will be given on why this method was chosen. The aim of this is to ensure that the best available approach for the current study has been adopted.

The existing methodologies used in the literature on technology acceptance models came from “limited experience and suffer from” many issues like the lack of consideration for cultural provision (Al-Mudimigh, Zairi, and Al-Mashari, 2001; p.224) and the lack of a theoretical framework for the cultural values identification. Moreover, “there is a link between what culture is held to be and the manner in which it is investigated” (Straub et al., 2002; p.18). Al-Mashari (2003; p.39) presented “process change management-oriented model that considers the key areas in ERP implementation, including strategy, business processes, structure, culture, information technology and managerial systems”. While Duedahl, Andersen and Sein (2005)

examined adapting IT competencies of business managers by adapting a model of IT competence developed and validated in Canada to the Norwegian context. They have conducted interviews and distributed a questionnaire in different organisations in order to customise the Canadian model of IT competence to suit the Norwegian context. Results from the interviews were tested using “an interview data validation” technique for verification purposes, and both (the interviews and the interview validation) were used to create a survey instrument. They have also utilised a survey designed by an associate of Bassillier in Australia. The resulted survey in its final version was used to validate the model (Duedahl et al., 2005; p.40).

Although unsuccessful acceptance of technology is often harder to research, since firms try to hide their problems from the public (Gargeya and Brady, 2005; p.505; Morse, 2003; p.203), sampling should include both successful and failed implementations. Gargeya and Brady (2005; p.502) reviewed 44 companies of different sizes and from different industries that implemented SAP. While Markus, Axline, Petrie, and Tanis (2000; p.251) study did not accomplish the general conclusion as they targeted only the organisations with limited or even no success. Agourram (2009; p.52) measured the perception of Information Systems success at various levels (system, user and organisational) in Saudi Arabia by using an open interview instrument. Similarly, the current study conducted individual interviews at the beginning in order to explore the current situation and identify the factors that impact on e-service use. Unfortunately only successful practitioners were targeted and consequently the data did not reveal the reasons for lack of adoption. As a result, the researcher had to collect more data by conducting focus groups to pick up the cultural values that impact on e-service use in Saudi Arabia.

In Ashkanasy, Trevor-Roberts and Earnshaw (2002; p.33) study, a questionnaire was distributed to managers that asked them to list the cultural principles and practices in their societies, simultaneously with their evaluation of leadership roles. In Hill et al., (1998; p.9) the participants were also asked to list the most important cultural factors.

“Cultural influence modelling” has been used by Straub et al., (2001; p.8) to demonstrate how cultural, social and technical factors can “predict and influence” the

effects of the Information Technology Transfer (ITT) process in culturally varied societies. More specifically, this study focuses on the beliefs and values related to the Arab sense of time (Straub et al., 2001; p.8). Culture in Straub et al. (2001) study was conceptualised by asking two essential questions. First of them, is culture a structural phenomenon with properties irreducible to individuals, or is it comprised of the individuals' attributes? Answer to this question will contribute to the process of analysis. Second question, can culture be measured using universal dimensions or should it be measured with specific consideration for the targeted cultural group/frame? Both questions were looking for a clear definition for culture to avoid vagueness in the research findings thereafter (Straub et al., 2002; p.18).

After conducting this exploration, a basic justification for adopting mixed-methods design in this study is driven by “collecting quantitative data in a second phase is important to test the qualitative explorations of the first phase of [a] study” (Creswell, 2012; p.548). Another justification to use mixed-methods research is to use an instrument (Greene et al., 1989; p.259; Creswell and Clark, 2011; p.62) that can uncover the deep cultural values that impact on e-service use in Saudi Arabia.

In brief, one of the major reasons that motivated this study to use mixed-methods is the use of one method's findings to initiate the next method. Of the available methods, this study will not be able to rely on any one method, as one method alone will not be able to gather effective data with the existing cultural barriers. Therefore a mixed-methods methodology was chosen as the best approach and has been selected to uncover the deep cultural values that impact on e-service use in Saudi Arabia. The aim of the mixed-method approach is to increase the strengths of the research and reduce the shortcomings that may occur if only one method was used.

3.4 Theoretical background for mixed-methods approach:

3.4.1 Definition:

Mixed methods, a new form of research method, was established in the late 1980s (Creswell and Clark, 2011; p.20). “A mixed method research design is a procedure for collecting, analysing and mixing both quantitative and qualitative methods in a single study or a series of studies to understand a research problem”. It is more about

“integrating” and “linking” rather than only collecting qualitative and quantitative data (Creswell, 2012; p.535). Multimethod is a different term that some researchers blend with the term mixed methods. Multimethod consists of the use of “two or more” different methods in one research study. To illustrate, a researcher who applies this method could use more than two techniques (instrument) of either qualitative or quantitative methods (Hesse-Biber, 2010; p.2) in a single project with careful and perfect attention to the details, then combining their results to achieve a comprehensive conclusion (Morse, 2003; p.190). Paradigm is another term that is related to mixed methods. Morgan (2007) argues for “paradigms as systems of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them” (Morgan, 2007; p.49). It is broader than mixing or using more than one method since it “frames and guides a particular orientation to social inquiry, including what questions to ask, what methods to use, what knowledge claims to strive for and what defines high-quality work” (Greene and Caracelli, 1997; p.6).

Research methods have been traditionally linked to certain paradigms, but this connection, according to Johnson and Onwuegbuzie (2004; p.15), is not essential. Paradigm advocates view the mixed-methods research as to care about the “philosophical assumptions” more than the methods or the research procedure (Creswell and Tashakkori 2007; p.305). In brief, there is no perfect method. Thus, using two or more methods increases the research strength (Gable, 1994; p.112) and can make a positive contribution (Greene and Caracelli, 1997; p.7).

3.4.2 Designs:

The literature on the design of mixed-methods research is rich with potential designs. The basic concept is to build a research model using both qualitative and quantitative methods in the various research phases. Two major types of mixed-methods research have been widely used: combining both approaches (i.e. qualitative and quantitative) throughout the research stages. Second type is “the inclusion of” these approaches in a single study (Johnson and Onwuegbuzie, 2004; p.19).

Creswell (2012) has proposed six mixed-methods designs. The first four of them are the basic designs that are commonly used and the last two are more complex but “are

becoming increasingly popular, these are:

- The convergent parallel design,
- The explanatory design,
- The exploratory design,
- The embedded design,
- The transformative design,
- The multiphase design” (Creswell, 2012; p.540).

Petter and Gallivan (2004) contend that there are only “three approaches of mixed-methods data collection and analysis”. These are sequential, parallel and independent. In the first approach, two or more different stages are conducted in the study with a different research method in each stage. In the second approach, there are still two or more different research stages but they are conducted at the same time. In this approach there are two or more distinct researchers’ teams and it is the team leaders’ responsibility to ensure “some interaction between the researchers, data and results of each study”. The third approach is independent research, it is similar to the second approach “but with no interaction among researchers during data collection or analysis” (Petter and Gallivan, 2004; p.6).

Creswell and Clark (2011) provided two criteria to help researchers in choosing the proper mixed-methods design. First is “typology-based approach” that calls attention to consider the study’s objectives and inquiries. Second is “Dynamic approach” that focuses on the design process itself by connecting its components “rather than placing emphasis on selecting an appropriate design from an existing typology”. The advantage of typology-based approach is informing the researcher about the potential methods that are better in “addressing the research problem and resolving the challenging issues”. Another advantage is the suitability of this approach for a beginning researcher as guidance for the “design choice”. Once they have advanced their research skills, they are encouraged to use the dynamic approach (Creswell and Clark, 2011; p.55).

The aim of this study is to identify cultural values specific to the Saudi Arabian context that impact on e-service use. One of the six mixed-methods designs proposed by Creswell (2012) is applicable for this study; the exploratory sequential mixed-methods design (Figure 2). As contended by Creswell, “researchers use this design when existing instruments, variables and measures may not be known or available for the population under study”. Through starting the study by collecting qualitative data the researcher can investigate the initial research problem, “identify themes and design an instrument”. Testing this instrument quantitatively is the following phase in order to be able to generalise the qualitative data findings. Usually in the sequential design, researchers begin the study firstly with qualitative data collection like individual interviews with a small sample, then, in the second stage, “with a large, randomly selected number of participants” using quantitative data collection methods such as questionnaire (Creswell, 2012; p.543). A considerable attention to the study’s objectives should be given during sampling especially when “the results are to be generalised to a population beyond the sample” (Bazeley, 2004; p.6).

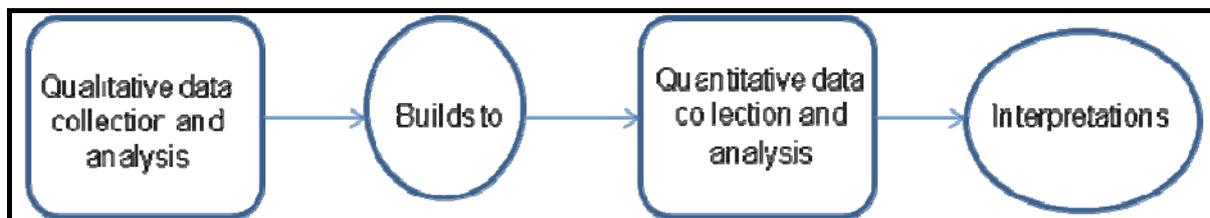


Figure 2: Exploratory Sequential Design adapted from (Creswell, 2012; p.541)

The mixed-methods researcher plans on the quantitative data to build on or explain the initial qualitative findings. The intent of the researcher is for the quantitative data results to refine and extend the qualitative findings or by testing out an instrument or survey developed using the qualitative findings or by testing a typology or classification that developed from the qualitative findings. In both cases, the initial qualitative exploration leads to detailed, generaliseable results through the second quantitative phase. One advantage of this approach is that it allows the researcher to identify measures actually grounded in the data obtained from study participants. The researcher can initially explore views by listing to participants rather than approach a topic with a predetermined set of variables. However, it has the disadvantage of requiring extensive data collection as well as

the time required for this process is long. The testing of an instrument adds considerably to the length of time this design requires to be implemented (Creswell, 2012; p.543).

Table 8 introduces the main characteristics of the exploratory design including definition, purpose, level of interaction and strategies for analysis. It is defined as the sequential implementation of the research methods by starting using one method (e.g. qualitative) to collect and analyse the data in the first phase, then using the other method (e.g. quantitative), based on the outcomes of the first phase, to collect and analyse the data as well in the next phase. Although it includes both qualitative and quantitative data collection more emphasis on the qualitative approach is recommended in this design (Creswell and Clark, 2011).

| Prototypical Characteristics | Exploratory Design |
|---------------------------------------|--|
| Definition | Methods implemented sequentially, starting with qualitative data collection and analysis in Phase 1 followed by quantitative data collection and analysis in Phase 2, which builds on Phase 1 |
| Design Purpose | Need to test or measure qualitative exploratory findings |
| Typical paradigm foundation | Constructivist in Phase 1 Post positivist in Phase 2 |
| Level of interaction | Interactive |
| Priority of the strands | Qualitative emphasis |
| Timing of the strands | Sequential: Qualitative first |
| Primary point of interface for mixing | Data collection |
| Primary mixing strategies | Connecting the two strands: From qualitative data analysis to quantitative data collection Use qualitative results to make decisions about quantitative research questions, sampling, and data collection in Phase 2 |
| Common variants | Theory development Instrument development |

Table 8: Prototypical Characteristics of Exploratory Design (Creswell and Clark, 2011; p.73).

Creswell and Clark (2011) added:

During the initial qualitative phase, we recommend that a typical qualitative data analysis consist of identifying useful quotes or sentences, coding segments of information and the grouping of codes into broad themes. With this configuration of the qualitative data, the mixed-methods researcher can use the central phenomenon as the quantitative construct to be assessed by the instrument, the broad themes as the scales to be measured, the individual codes within each theme as the variables and the specific quotes from individuals as specific items or

questions on the instrument (Creswell and Clark, 2011; p.188).

To summarise, mixed-methods approach has various designs. These designs vary with respect to different conditions such as their occurrence time (e.g. parallel or sequential). The challenging issue in applying mixed-methods design is when deciding to link qualitative and quantitative data, and the question of the way and aim of applying this design (Bazeley, 2004; p.2). A general rule to validate a method is to ensure the adoption of its key characteristics (Bazeley, 2004; p.5), and the consistency of the topic objectives and domain with the methods and paradigms (Johnson and Onwuegbuzie, 2004; p.16). It is recommended, while planning for the research design, to focus on the “conclusion, than to organise on the basis of method used” (Bazeley, 2004; p.9).

3.4.3 Strengths and Weaknesses:

Both qualitative and quantitative methods have advantages and disadvantages; it has been recommended that researchers should use them both in order to obtain more reliable data (Yauch and Steudel, 2003; p.465). Although using the qualitative approach consumes more time, the understanding capabilities of the studied phenomena go much more in-depth (Yauch and Steudel, 2003; p.472; Johnson and Onwuegbuzie, 2004; p.20). One of the major advantages that outweigh the use of mixed over the single method is its comprehensiveness (Morse, 2003; p.195). The researcher is able to achieve generalisation through quantitatively investigating a large population. In addition, the implementation of qualitative methods that often concentrates on the reasons behind the phenomena ensures an in-depth understanding of the research problem (Bazeley, 2004; p.5). One another advantage of the qualitative method is that the researchers in this method could expand or narrow the scope of the research due to the changes they may encounter while undertaking the study (Johnson and Onwuegbuzie, 2004; p.20). Qualitative methods, as it continues to have feedback from the participants, can balance for any weakness that could occur within the quantitative. Qualitative researchers are more able to create and test a new theory than quantitative (Dillman, 1978; p.60).

One of the disadvantages for the quantitative method is that it is non editable. Once submitted there is no way to go back to the respondents to modify or clarify their answers (Bazeley, 2004; p.7). On the other hand, a disadvantage of the qualitative

methods is that its data cannot be revealed for public, and since “human beings can never be completely value free” this will consequently affect its evaluation or judgment (Johnson and Onwuegbuzie, 2004; p.16). More drawbacks of adopting quantitative approach in addition to the pre-specified answer options (close ended questions) is that the participants could misunderstand the questions especially if the questionnaire was in the participants’ second language (Yauch and Steudel, 2003; p.474). The questionnaire also has the high “possibility of contamination”; the researcher cannot control the conditions of the participants when responding to the questionnaire (Dillman, 1978; p.64).

Merging more than one method enables the researcher to acutely understand the scope and accomplish the research objectives “more quickly” (Morse, 2003; p.189; Yauch and Steudel, 2003; p.477). It can also identify new areas for research. However, it is likely they will need to be educated as to this approach’s use (Johnson and Onwuegbuzie, 2004; p.20) and face the challenge of writing about it, as it is different from the “traditional format” (Bazeley, 2004; p.9; Creswell, 2012; p.557; Creswell and Clark, 2011; p.252).

The initiation of a research question is relatively hard in some studies. This might be because the scope is new and researchers “may not know the questions that need to be asked, the variables that need to be measured and the theories that may guide the study”. Consequently the use of the exploratory sequential design is advantageous in such cases. It allows the researcher to explore the studied phenomenon “qualitatively to learn what questions, variables, theories and so forth need to be studied and then follow up with a quantitative study to generalise and test what was learned from the exploration” (Creswell and Clark, 2011; p.9). Mixed-methods research in general, allows researchers “to use all methods possible to address a research problem”. Further, it presents the data in forms of “both numbers and words” which make the research outcomes more sensible (Creswell and Clark, 2011; p.13). More advantages for the exploratory sequential design are also reported by Creswell and Clark (2011) as follows:

- “Separate phases make the exploratory design straightforward to describe,

implement and report.

- Although this design typically emphasises the qualitative aspect, the inclusion of a quantitative component can make the qualitative approach more acceptable to quantitative-biased audiences.
- This design is useful when the need for a second, quantitative phase emerges based on what is learned from the initial qualitative phase.
- The researcher can produce a new instrument as one of the potential products of the research process” (Creswell and Clark, 2011; p.89).

As with the other research methods (qualitative and quantitative) mixed methods is not perfect. Indeed it “is not the answer for every researcher or every research problem” (Creswell and Clark, 2011; p.13). Petter and Gallivan (2004) stated four categories of obstacles: “philosophical, cultural, psychological and practical” (Petter and Gallivan, 2004; p.4). However time, resources and skills required are of the most cited challenges to undertake a mixed-methods research (Bazeley, 2004; p.8; Petter and Gallivan, 2004; p.9; Creswell and Clark, 2011; p.13).

The “methods experience gap” is one of the challenges addressed by Hesse-Biber (2010; p.213) and Bazeley (2004; p.8). It emphasises the importance of having enough knowledge and skills of using both qualitative and quantitative methods. Failure to have such experience would result in unwanted consequences on both the levels,: method and results. More challenges are:

- “If an instrument is developed between phases, the researcher needs to decide which data to use from the qualitative phase to build the quantitative instrument and how to use these data to generate quantitative measures.
- Procedures should be undertaken to ensure that the scores developed on the instrument are valid and reliable” (Creswell and Clark, 2011; p.89).

Another weakness of mixed-methods research could occur if different researchers from different backgrounds are working on one project. Supporting this, Petter and Gallivan (2004) contend that, “social factors can influence the use of mixed methods”. They view

the regulations “of academic institutions and the guidelines of academic journals” as one example of this (Petter and Gallivan, 2004; p.8).

3.4.4 Rationality:

Many researchers see mixed methods as the best and most complete method to answer their research inquiries (Johnson and Onwuegbuzie, 2004; p.18). Yet the rationality behind using mixed-methods research is more than this. Bazeley (2004) states that the purpose of using are, “corroboration, expansion or initiation” (Bazeley, 2004; p.3). Many cases aim to expand one’s understanding of the research problem (Johnson and Onwuegbuzie, 2004; p.19). Generally speaking, a researcher undertakes a mixed-methods study “when both quantitative and qualitative data and both types of data, together, provide a better understanding of the research problem than either type by itself” (Creswell, 2012; p.535). Three more reasons to use mixed methods design are stated below by Creswell (2012):

- “When one type of research (qualitative or quantitative) is not enough to address the research problem or answer the research questions. More data is needed to extend, elaborate on, or explain the first database.
- When you want to provide an alternative perspective in a study.
- When you want data from one source to enhance, elaborate, or complement data from the other source. In more complicated design, the data collection could extend from two to three phases or be collected from multiple levels in an organisation” (Creswell, 2012; p.535).

Another reason to use mixed-methods research is to develop a research instrument (Greene, Caracelli, and Graham, 1989; p.259; Creswell and Clark, 2011; p.62). Through this methodology, the researcher can “obtain themes and specific statements from individuals that support the themes. In the next phase, these themes and statements can be used to create scales and items as a questionnaire. Alternatively, they look for existing instruments that can be modified to fit the themes and statements found in the qualitative exploratory phase of the study” (Creswell, 2012; p.551). The exploratory sequential design is one of the mixed methods designs and “is based on the premise that

an exploration is needed for one of several reasons:

1. measures or instruments are not available,
2. the variables are unknown, or
3. there is no guiding framework or theory” (Creswell and Clark, 2011; p.86).

Greene et al. (1989) list five specific reasons why researchers should consider using mixed methods:

1. Triangulation (the use of more than one method while studying the same research question).
2. Complementarity (allows the researcher to gain a fuller understanding of the research problem and/or to clarify a given research result).
3. Development (results from one method help develop or inform the other method).
4. Initiation (a study’s findings may raise questions or contradictions that will require clarification, thus initiating a new study).
5. Expansion (extend the breadth and range of the inquiry)” (Greene et al., 1989; p.259).

3.4.5 Analysis:

Part of the challenges to adopt mixed methods research appears in the analysis phase. This is critical since researchers need to have adequate skills for both qualitative and quantitative analysis techniques. Computer softwares are most commonly used to analyse quantitative rather than qualitative data and this is another challenge since both data need to be integrated in mixed methods design to answer the research question (Bazeley, 2004; p.6). Although it is hard to find examples (Morse, 2003; p.203; Gargeya and Brady, 2005; p.505), in some projects, contradiction occurs between the qualitative and quantitative results, the following quotes illustrate the procedure that should be taken.

Depending on the discrepancy, the researcher must regroup. If it is clear that the model or theory is incorrect, then the researcher must consider why. Perhaps another qualitative study using a different design, or another quantitative study, will have to be conducted (Morse, 2003; p.203).

If the analyses of each method contradict one another, the researchers must reconcile the differences by searching for reasons for the conflicting results. This may lead the researchers to develop new constructs to explain the contradictory results. While contradictory results may cause researchers to spend additional time and resources to resolve the conflict through additional analysis or data collection, a more interesting and complex explanation for the result is usually obtained, since the contradiction must be resolved (Petter and Gallivan, 2004; p.9).

Mixed-method designs is based on the “time ordering of qualitative and quantitative” as one aspect (Johnson and Onwuegbuzie, 2004; p.15). Most studies that used mixed methods have used them in a parallel or sequential but not integral (Bazeley, 2004; p.3). The mixed methods in this study will take an integral approach and include a literature review, a preliminary interview, focus groups and questionnaires and the analysis will use both qualitative and quantitative methods. The following section illustrates the stages of this research.

3.5 Research plan:

One of the critical issues for mixed methods that were identified by Bazeley (2004; p.9) is to “give direction to the study and a logical basis for explanation”. Hence, the presence of a research plan (Figure 3) in our study as it applies mixed method is vital. As shown in this figure, the research journey started with personal assumptions. As a Saudi citizen, I noticed that the Saudi government is eagerly supporting the implementation of e-services in public and private sectors financially and legislatively. However, the presence of e-services is not obvious as the spent efforts. So in order to define the research problem in a proper way we reviewed the literature and checked items written about the implementation of e-services and impediments toward it. As a result, the initial research objectives and questions were stated. Then, methods were

also reviewed to select the capable one to achieve the stated objectives. Phase one has commenced by interviewing only organisations that succeed in implementing and using e-services as it is difficult to research the failed ones since they try to hide their problems from the public (Gargeya and Brady, 2005; p.505; Morse, 2003; p.203). Consequently, data analysis of this phase showed less important information which required us to search the literature again and modify the research problem and question. After then, step two of phase one used another form of data collection which was focus groups. The main contributions of our study, as will be discussed in the results/findings chapter, were resulted of this step. But in order to generalise what we found we conducted another phase, and thus phase (2) the quantitative approach.

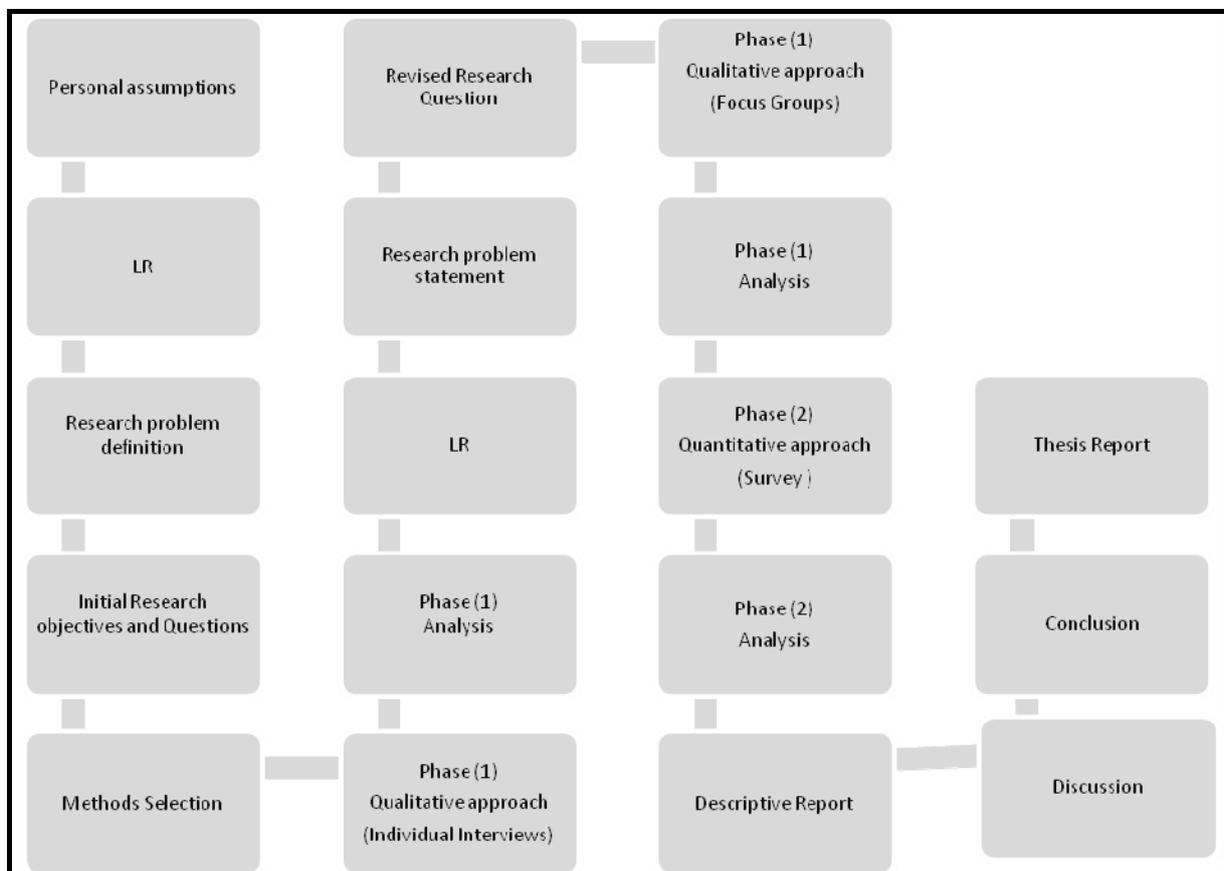


Figure 3: the research plan

Integration between the research stages should be ensured and this is the rationale behind designing Table 9. An explanation of some of the major stages will follow:

| Research aim | Research question | Research plan | Method |
|---|---|--|--|
| To identify the cultural values that impede e-service use in the Kingdom of Saudi Arabia. | To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? | Identify the success/failure key issues – an exploratory stage | -Literature review. -Government reports. -Exploratory interviews (comparison between two organisations in each of Saudi Arabia and Australia). |
| | | Identify further issues | Focus groups. |
| | | Framework of cultural values | Analysis reading to preliminary framework. |
| | | Questionnaire design | Questionnaire (designed from the literature and focus groups outcomes). |

Table 9: links between the main research stages

3.5.1 Identify the success/failure key issues – an exploratory stage:

This research is concerned with identifying cultural values that impact on e-service use in Saudi Arabia. As a new area of research, this study has gone through an exploratory stage in order to “clarify and define the nature of the problem” (Al-Shehry et al., 2006). The first step to implementing this research is to determine the current situation in Saudi Arabia and globally by reviewing the literature. This was performed in the previous chapter. Government public reports and policies documents for the implementation practices were used to help the researcher in backgrounding the subject. As it has been recommended in the literature to use qualitative before quantitative methods (Yauch and Steudel, 2003; p.476), exploratory comparison interviews of e-business implementations were made between Saudi Arabia and Australia. Interviews have been used to deeply understand the research problem and develop items to be added in the questionnaire (Alwabel and Zairi, 2005; p.13). Unfortunately data collected from this stage did not contribute that much to the whole research objective because wrong interviewees were chosen. This is as a result of only the successful implementation practices were targeted as it is difficult for failed

practices to be identified (Gargeya and Brady, 2005; p.505; Morse, 2003; p.203) as indicated before and will be explained more in section 3.6.1.2.

3.5.2 Identify further issues:

Having identified the current reality of e-business implementations in Saudi Arabia and Australia, a preliminary checklist of impediments was built and checked against those identified in the literature. It is expected to fail in one or more of the methods used (Yauch and Steudel, 2003; p.477), hence, this list of key issues has only confirmed what has been identified in the literature. A supplementary qualitative method has been obtained through conducting focus groups to help modify the scope of this research and determine the issues that needed further investigation. It also ensures a list of issues is identified to confirm the design of the questionnaire.

3.5.3 Framework of cultural values:

The results of the focus groups revealed a list of four Saudi cultural values that need further investigation. Accordingly, a questionnaire was needed in order to confirm and generalise this set of values. The aim of this stage has been achieved as the framework was built and each of its components was defined.

3.5.4 Questionnaire design:

The final set of elements was included in the questionnaire to be tested in wider population. The questionnaire findings will then build a general final cultural values framework that impact on e-service use in Saudi Arabia, which is the main contribution of the current study.

3.6. Phase (1): the Qualitative approach:

3.6.1 Individual Interviews:

This section details the aim, sample, and procedure of the individual interviews the first phase of our study.

3.6.1.1 Aim:

The aim of conducting these individual interviews was to identify the preliminary

success/failure key issues for e-business implementations. These key issues will help to create a checklist of elements to enable businesses to determine the appropriate model for the implementations. Those elements were intended to be tested in the next step in order to propose an effective e-business implementation model in Saudi Arabia.

3.6.1.2 Sample:

Since this research initially focused on the e-business implementations in Saudi Arabia, the researcher chose a sample of the preliminary interviewees from the winners' list of the Digital Excellence Award in the Kingdom of Saudi Arabia. The Ministry of Communication and Information Technology (MCIT) introduced this award in 2005 aiming at supporting Arabic talents in the field of Arabic content development and design. It looks after technological and intellectual creativity. The most important objective for this award in relation with this research topic is that it seeks to present Arabic digital context with a consideration of Saudi culture. The Digital Excellence Award focuses particularly on the quality of Arabic web content in seven branches: e-business, e-culture, e-education, e-government, e-health, e-media and educational organisations. The committee of this Award consists of six specialized members who have been selected. Every competing Arabic website is inspected by independent arbitrators and specialists from various disciplines (Academic, Government and Private Sector). The electronic Arbitration process uses programmed measures, used by more than (40) arbitrators. Every website is evaluated by at least (7) arbitrators and all are hidden to guarantee unbiased results.

Bazeley (2004) contends that "interviews and focus groups generate different information reflecting public versus private views" (Bazeley, 2004; p.2). As shown in Table 10, participant organisations for this study were selected from both countries according to their sector (public / private) and their current participation in e-business. The researcher intentionally chose the best current e-business practices through some organisations who obtained an excellence award in the implementations. We firstly chose organisations from Saudi Arabia who have received the Digital Excellence Award presented by the Saudi Ministry of Communication and Information Technology (MCIT). There are six branches for this award, but for the purpose of this study two branches were selected e-Government branch for the public sector, and e-Business branch for the

private sector (mcit.gov.sa). The next step was to choose their Australian counterparts. Two Australian organisations in the same area and had received awards as well were selected. People with high positions in IT department were targeted for the interviews. The reason why these two countries were chosen is because of the cultural differences between them in addition to that Saudi Arabia is the home country for the researcher and Australia is where this researcher is based to obtain a PhD.

| Org. code | Industry | Interviewee position | Award obtained |
|------------------|-----------------------------|-----------------------------|---|
| A | Telecommunication (private) | Vice President (IT dep.) | Digital Excellence Award (Saudi Arabia, 2008) |
| B | Municipality (public) | Manager (E-services dep.) | Digital Excellence Award (Saudi Arabia, 2008) |
| C | Municipality (public) | Manager (ICT Partnerships) | Top Government Website (Australia, 2008) |
| D | Telecommunication (private) | N/A | Australian telecom Awards (Australia, 2008) |

Table 10: individual interviewees

3.6.1.3 Procedure:

After deciding on the targeted sample for our individual interviews, two letter templates were written in both languages; Arabic and English. First one was an invitation to participate in the interviews with the university ethics clearance approval number included as shown in Appendix 1. The second letter meant to thank the participant for his/her agreement to participate in the study and explain the interview procedure as shown in Appendix 2. Three out of four proposed interviews were successfully completed as the various attempts to contact the fourth interviewee failed. Because of the possibility of connection problems the two interviews conducted with the Saudi participants were made from Skype software to their landline phones. As a result, a credit was purchased from Skype in addition to call recording software (Pamela for Skype) compatible with Skype to ensure high quality recording. While the third interview conducted with the Australian organisation was made face-to-face.

Interviews were semi-structured, so six questions with some sub questions were prepared and more questions were raised through the discussion. These six questions are:

1. When did you start to implement e-business?

2. What was the purpose of or driving reason for implementing e-business?
 - 2.1 What factors do you think motivate e-business implementations?
3. What e-business model have you implemented, is it existing or a new one?
 - 3.1 How did you go about this process? Did you implement e-business yourself or through an external body?
 - 3.2 Do you have a standard guidelines or strategic plans to implement e-business?
4. Do you think your first attempts were successful?
5. What are the lessons learnt from this process?
 - 5.1 Were there aspects that needed improvement? How did you improve it?
 - 5.2 What would you suggest to ensure effective e-business implementation?
6. Do you think there are any obstacles to successfully implementing e-business in Saudi Arabia? (Only for Saudi participants)

3.6.2 Focus Groups:

The second data source for our research collected through four focus groups. Below are details of its aim, sample, and procedure.

3.6.2.1 Aim:

The aim of the focus groups was to gather more in-depth information to understand the uncovered elements of Saudi culture in the literature, in order to develop a framework of cultural values that affect e-service use in the Saudi Arabian context. According to Morgan (1997) focus groups have been recommended as a means to construct surveys or questionnaires since 1986 and there are three things that focus groups can contribute to the questionnaire:

- Capturing all the domains needed to be included in the questionnaire.
- Determining the dimensions that make up the domains.

- Item wording (Morgan, 1997; p.25).

The potential options after finishing the focus groups were as follows: to conduct a quantitative study of the field through a questionnaire if needed, but if rich content was obtained from the focus group, then the questionnaire would not be used, but instead individual interviews would follow from the focus groups in order to narrow down the findings.

3.6.2.2 Sample:

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 (Coyne, 1997; p.625). Focus groups are frequently conducted with purposively selected samples (Morgan, 1997; p.35) and this study used a convenience sampling technique for two important reasons. Groups can be selected quickly, and the potential participants can be readily identified. This technique, as Teddlie and Yu (2007) contend, “involves drawing samples that are both easily accessible and willing to participate in a study” (Teddlie and Yu, 2007; p.78). It is indeed a validated sampling technique where the researcher recruits the potential participants through the convenient resources available to him/her. There were two criteria to identify the potential participants of our study:

- the age (one younger group 30 years old and below and another older group 31 years old and above),
- and willingness to participate.

Consequently, four focus groups (4 – 6 participants each) of experts and users were conducted in Saudi Arabia:

- Experts in e-services from Yesser (the Saudi e-government program (yesser.gov.sa) who were 30 years old and below.
- General e-services users (customers) who were 30 years old and below.
- Experts in e-services from Yesser who were 31 years old and above.

- General e-services users (customers) who were 31 years old and above.

The Experts' groups are comprised of the staff of Yesser, while general users (customers) are the users of IT online business and e-government services in the general public. Since the experts sample belongs to an organisation, it was approached directly. While the general users who were the second target group were recruited from an English language academy because of the variety of people attending and the availability of the venue for the focus groups to meet.

Since they have dealings with all public sector organisations and some of the private sector organisations in Saudi Arabia in regard to e-service implementation matters, experts from Yesser were targeted for our study. Yesser is a government organisation that plays the role of enabling the implementation of e-government in Saudi Arabia (yesser.gov.sa).

3.6.2.3 Procedure:

Since there were two target groups for these collective interviews, Yesser was contacted and experts recruited with permission. Then we arranged with Aljazeera International Academy, in Riyadh – Saudi Arabia (aljazeeraacademy.com), to recruit general users of e-services because of the variety of people attending it and the availability of the venue for the focus groups to meet. A recruitment flyer in both languages, Arabic and English, was sent to the potential participants with slight modification in respect to the targeted participant. The English version is appended in Appendix 3. All these arrangements with participants were made through volunteer research assistants.

As indicated in the sample section, four focus groups were conducted. Before starting the interviews, there was a brief about the research, the research team and the structure for about ten minutes. Then participants were asked to sign the consent form (appendix 4) if they wanted to proceed. Although interviews were audio-recorded, the researcher was accompanied by a fellow researcher as a facilitator to take notes and maintain the scope during the discussion. Participants were told at the beginning that they are free to add or comment at any time.

Since there is no need to pre-test focus groups (Stewart and Shamdasani, 1990; p.66),

questions were built from the literature and the research team's assumptions. 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. The experts' group questions were as follow:

1. What are the most common current types of e-services (i.e. informative, inquiry..etc) ?
2. Can you think of organisations that are not using e-services and explain why?
3. Can you think of organisations that are using e-services and explain why?
4. Why do you think people may not use e-services?
5. What make it easy to use e-services?
6. Do you think our culture has hindered us somehow to use e-services, if yes what sort of cultural aspects that most affect our use?

General user's (customers) group questions are:

1. What do you think e-services are?
2. Do you use them? If yes how often, when, why and what for?
3. Why do you think people may not use e-services?
4. Can you think of organisations that are not using e-services, and explain why?
5. What make it easy to use e-services?
6. Do you think our culture has hindered us somehow to use e-services, if yes what sort of cultural aspects that most affect our use?

All in all, these focus groups were conducted in order to obtain more detailed information about the cultural values in Saudi Arabia.

3.7 Phase (2): the Quantitative approach:

3.7.1 Questionnaire:

According to Dillman (1978; p.80) survey questions usually seek one or more people's attitudes, beliefs, behaviour and attributes. These four categories consequently impact on the selection of the questions' structure. Questions can be one of the following four categories:

1. Open-ended.
2. Close-ended with ordered choice.
3. Close-ended with unordered response choice.
4. Partially close-ended (p.86).

The final data set for our research obtained by distributing quantitative questionnaire. Its aim, sample, and procedure are following in details.

3.7.1.1 Aim:

This study aimed to measure the cultural impact on e-service use in Saudi Arabia. Although quantitative methods are less likely to be used alone, they "appear to be better delineated and more focused than qualitative" (Morse, 2003; p.192). As a result of the focus groups described earlier and because the majority of cultural studies conducted in Saudi Arabia used the existing global cultural indices, culture here was measured with special attention to the Saudi context using new constructs. However, some of the questionnaire items were already obtained from the literature (Loch et al., 2003; Gainer and Padanyi, 2005; Hartline, Maxham, and McKee, 2000; Lyons, Duxbury, and Higgins, 2006; Buelens and Van den Broeck, 2007). Those items needed to be examined in the wider population in order to confirm and build the final framework of cultural values. This method has been selected to confirm the research has identified the critical cultural values that impact on e-service use in Saudi Arabia and be able to generalise them.

In order to achieve our aim, the following research model (Figure 4) was proposed. It aims to investigate the impact of Saudi culture represented in the new identified four

values: Nepotism, The fear of a Lack of Interaction with other Humans, Service Oriented Culture, and Employee commitment along with the two determinants of technology use proposed by Davis (1989): Perceived Usefulness and Perceived Ease of Use. Other cultural factors (e.g. Hofstede's, GLOBE's ... etc.) could be of the others affecting usage. But they have been extensively used in the literature in different countries, while our aim was to find something unique to the Saudi culture. Moreover, the four values (i.e. nepotism ... etc.) are what our research found unique to the Saudi culture and need to be investigated. The second part of the research model measures the impact of those factors on the Intention to Use and then the Actual Use of e-service in Saudi Arabia. An effective way to measure this part was through using the Technology Acceptance Model (TAM) designed by Davis (1989) since its ability to predict the use and intention to use (Davis et al., 1989; p.997). Since our scope is to investigate the direct impact on usage, we excluded other possible casual relationships between the cultural factors (i.e. nepotism, service-oriented culture etc.) on the perceived usefulness and perceived ease of use as some other studies used TAM did.

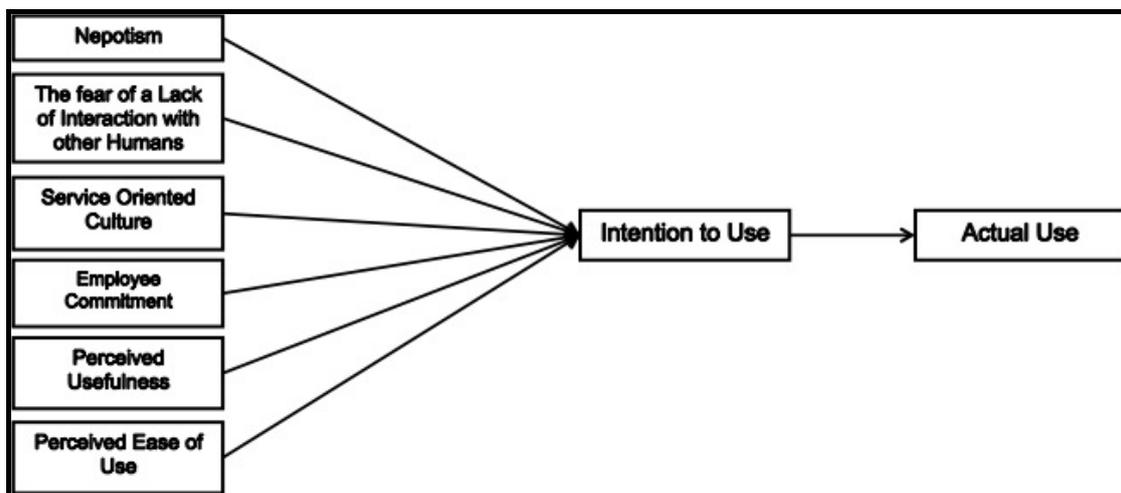


Figure 4: the research model

3.7.1.2 Sample:

Using a snowballing technique, employees of public and private sectors 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” (Petersen and Valdez, 2005). According to the Saudi Ministry of Civil Service, the number of public sector employees in Saudi Arabia is over one million (1.098.127) in

2010 (mcs.gov.sa). While in the private sector there are only 724,655 Saudi employees registered in the same year (mol.gov.sa). The link to the online questionnaire was sent to 195 email addresses from the researcher's personal contact list asking them to participate and invite their colleagues and friends to participate as well. In addition, the same invitation letter was posted on the researcher's personal profile on the *Facebook* social networking site and a modified message (because of the characteristic length restrictions) on the *Twitter* microblogging site. 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. Using Queensland University of Technology online survey software *Key Survey*, a link to the questionnaire was included in the message for the participants.

One of the disadvantages of snowball sampling is the difficulty of "obtaining parameters of representation" (Petersen and Valdez, 2005). Sample selection and size influence the kind of statistical procedure and consequently they reduce the potentiality of generalisation (Bazeley, 2004; p.7). In order to increase the response rate a follow-up email was sent one week after the questionnaire was sent out, and then a second and last email thanking those who completed the questionnaire and reminding those who had not completed or started was sent one week before closing. 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%. Majority (61.8%) of the participants ranged between 25 and 34 years old with 44% of them having a masters degree and 70.5% working for the public sector.

3.7.1.3 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 (e.g. Hofstede, GLOBE ... etc.), culture here was measured with special attention to the Saudi context 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 second was experts from the Saudi Arabian e-government program named *Yesser*. Both categories were divided into two groups with respect to

the participants' age (30 years and below and 31 years and above). The following describes these constructs and definitions:

- Nepotism: Nepotism is defined by the Cambridge online dictionary (dictionary.cambridge.org) as “using your power or influence to get good jobs or unfair advantages for members of your own family”. In Saudi Arabia with its various tribes and diverse landscapes, there are two main drivers of nepotism: tribe and region. Therefore, Nepotism has new created ten indicators derived by tribalism and regionalism as stated in Table 11.
- The fear of a lack of interaction with other humans: 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 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 (Loch et al., 2003).
- 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 a financial source to cope with their lives and not as a way to contribute to society and 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 Gainer and Padanyi (2005) as they were customised to fit non-profit organisations context. These twelve are taken from fifteen items originally developed by Narver and Slater (1990) to measure the effect of market-oriented culture on business profitability. A review for ten studies used Narver and Slater scale between 1990 – 2000 indicated that seven of them have found direct impact of market-oriented culture on business performance (Gainer and Padanyi, 2005; p.855).
- Employee commitment: Most of the Focus Groups' participants expressed their dissatisfaction with the Saudi public sector organisations especially, they see it influenced by Saudi culture more than private sector. This construct was measured by using the organisational commitment aspects. Eight items were

adapted from (Hartline, Maxham, and McKee, 2000) to measure the organisational commitment. Those items measure aspects like how much over expected efforts an employee could put toward his organisation in order to achieve its goals. Other aspects are also measured; including proudness, attachment, and attention to the organisation benefits.

| Construct | Indicators | |
|---|-------------------|--|
| Nepotism | N01 | Customers being of my tribe gives him an advantage over others |
| | N02 | Employees are rewarded according to their tribal relationship with senior management |
| | N03 | I find myself enforced to help customers from my tribe |
| | N04 | Being loyal to my tribe is essential |
| | N05 | Customers being of my region gives him an advantage over others |
| | N06 | Employees are rewarded according to their regional relationship with senior management |
| | N07 | I find myself enforced to help customers from my region |
| | N08 | Being loyal to my region of birth is essential |
| Fear of a lack of Interaction with other Humans (HI) | HI01 | e-services are unable to cater for special cases like traditional services do |
| | HI02 | I feel threatened by the way e-services could affect our community life |
| | HI03 | e-services isolate me from personal interaction with customer |
| Service Oriented Culture (SC) | SC01 | We express commitment to our customers |
| | SC02 | We create value for our customers |
| | SC03 | We understand the needs of our customers |
| | SC04 | We set customers satisfaction objectives |
| | SC05 | We measure customer satisfaction |
| | SC06 | Our personnel share any new information they have about other organisations that serve our customers |
| | SC07 | We respond rapidly to the actions of other organisations that serve our customers |
| | SC08 | Our top managers discuss the strategies that other organisations use with their customers |
| | SC09 | Our contacts with customers are coordinated between our various departments |
| | SC10 | We share information about customers among departments |
| | SC11 | We integrate departmental strategies with regard to customers |
| | SC12 | All of our departments contribute to creating value for customers |
| Employee Commitment | EC01 | I am willing to put in a great deal of effort beyond that normally expected in order to make this organisation be successful |
| | EC02 | I talk up this organisation to my friends as a great organisation to work for |
| | EC03 | I find that my values and this organisation's values are very similar |
| | EC04 | I am proud to tell others that I am a part of this organisation |
| | EC05 | This organisation inspires the very best in me in the way of job performance |
| | EC06 | I am extremely glad I choose this organisation to work for over others I was considering at the time |
| | EC07 | I really care about the fate of this organisation |
| | EC08 | For me, this organisation is the best of all possible organisations to work for |

Table 11: Culture constructs and their indicators

The second part of the research model (Figure 4) measures the use of e-service in Saudi

Arabia. Enormous effort has been made in order to recognise “the determinants of employee’s information technology adoption and use” (Venkatesh and Bala, 2008; p.273). An effective way to measure this was through using the Technology Acceptance Model (TAM) designed by (Davis, 1989). Unlike other cultures (McCoy et al., 2007; p.87), Saudi culture, as one of the non-Western countries studied by Schepers and Wetzles, was found as “a significant moderating variable in TAM” (Cardon and Marshall, 2008; p.105). In a decade, “TAM has become well-established as a robust, powerful and parsimonious model for predicting user acceptance” (Venkatesh and Davis, 2000; p.187). Although some criticised TAM as “too simple and leaves out important variables and processes (Bagozzi, 2007; p.252), it has achieved “empirical support explaining about 40% of the variance in behavioural intention and 30% of systems usage” in various cultures and settings (Venkatesh and Davis, 2000; p.186; Halawi and McCarthy, 2008; p.96; Davis et al., 1989; p.993; Gefen et al., 2003; p.309; McCoy et al., 2007; p.82; Venkatesh and Bala, 2008; p.275). It practically can predict the use from the users’ intention to use (Davis et al., 1989; p.997).

According to Bagozzi (2007), “TAM is a completely deterministic model in the sense that the causes at the foot of each arrow in the model are presumed to inevitably lead to the effect at the head of the arrow. That is, when an independent variable increase (decrease), the dependent variable is expected to increase (decrease) by some amount to be estimated empirically” (Bagozzi, 2007; p.249). As indicated in sections (2.5 & 3.7.1.4), previous studies have used TAM differently. Some have used only four out of the six original items for PU and PE, while others have used the whole six items for both factors. Since we aim to replicate testing the TAM model and the effect of additional new factors (Saudi culture), we adapted the original set of the model which has been extensively validated. Indicators of this construct are listed in Table (12).

| Construct | Indicators | |
|----------------------------------|------------|---|
| Perceived Usefulness (PU) | PU01 | Using e-services in my job would enable me to accomplish tasks more quickly |
| | PU02 | Using e-services would improve my job performance |
| | PU03 | Using e-services in my job would increase my productivity |
| | PU04 | Using e-services would enhance my effectiveness on the job |
| | PU05 | Using e-services would make it easier to do my job |
| | PU06 | I would find e-services useful in my job |
| Perceived Ease of | PE01 | Learning to operate e-services would be easy for me |
| | PE02 | I would find it easy to get e-services to do what I want them to do |

| | | |
|-------------------------|------|---|
| Use (PE) | PE03 | My interaction with e-services would be clear and understandable |
| | PE04 | I would find e-services to be flexible to interact with |
| | PE05 | It would be easy for me to become skilful at using e-services |
| | PE06 | I would find e-services easy to use |
| Intention to Use | IU | Assuming e-services would be available on my job, I predict that I will use it on a regular basis in the future |
| Actual Use | AU | How often do you currently use e-services in your work? |

Table 12: TAM constructs and their indicators

3.7.1.4 Scale development:

The questionnaire items were measured using seven-point scales. Three different categories of scales were implemented; totally disagree to totally agree, totally not important to totally important and very unlikely to very likely. In the middle of the scale a neutral point was used which also interpreted as not applicable in some questions. Nepotism has been measured using new created ten indicators as stated previously in Table 12. While Indicators one and three in the fear of a lack of interaction with other humans construct were built by the researcher, and indicator number two was adapted from (Loch et al., 2003). The third construct, which is Service Oriented Culture was represented by twelve indicators obtained from (Gainer and Padanyi, 2005). Finally, the Employee Commitment construct. This construct was measured by the degree of organisational commitment. Eight items were adapted from (Hartline et al., 2000) to measure the organisational commitment.

Studies adapted TAM differently. While Gefen et al. (2003) used the original set of TAM's questions (Gefen et al., 2003; p.312), Halawi and McCarthy (2008) used "two sets of ten questions" to measure Perceived Usefulness and two questions for Perceived Ease of Use (Halawi and McCarthy, 2008; p.97). Davis et al. (1989) in their attempt to extend the original TAM have measured each of PU and PEOU using four items, and two items for "self-reported usage" (Davis et al., 1989; p.990; Venkatesh and Davis, 2000; p.194). Consistent with the previous work, Venkatesh and Bala (2008) in their work toward the development of the third version of Technology Acceptance Model TAM3 measured PU and PEOU using four items for each (Venkatesh and Bala, 2008; p.283). In this study however, as indicated in Table 12, 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 by using one statement each. There were some modifications in the statements to fit the study context.

Self-reported usage is a problematic for Information System research (Venkatesh and Davis, 2000; p.199). It is usually used “where objective usage metrics are not available”. Some researchers recommend it as an “appropriate relative measure”, however others deem it an inaccurate measure (Davis et al., 1989; p.991). We have used self-reported usage twice in our current study. First to predict Intention to Use through a seven-point scale starting with very unlikely and ending with very likely. Second to report on the Actual Usage via pick up one from the listed option format that contained six options (do not use at all, use less than once each week, use about once each week, use several times a week, use about once each day, use several times each day). A way to overcome this issue is to keep in mind “that usage is only a necessary, but not sufficient, condition for realising performance improvements” (Davis et al., 1989; p.1000).

3.7.1.5 Pilot study:

Piloting the questionnaire differs from one researcher to another; but there is no one way agreed upon (Dillman, 1978; p.155). Moore and Benbasat (1991; p.198) 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 useability by experts. The final stage is to test the whole questionnaire before finally inviting participants to commence participation.

Culture and language differences are considered to be two major challenges for translating a research instrument (Abu-Shanab and Pearson, 2009; p.237). 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 (Abu-Shanab and Pearson, 2009; p.237), 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 useability. As a result the questionnaire of this study was administrated in Arabic to ensure the clarity and avoid influencing the response (Yauch and Steudel, 2003; p.474).

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” (Dillman, 1978; p.95).

Q-sort method “is a scaling technique” that asks for categorising the newly built items under a suitable category (Block, 1961; p.8). 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, p.72), “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.

The potential participants should be engaged in piloting the questionnaire and “the convenience of the pilot sample” (Abu-Shanab and Pearson, 2009; p.237) should be considered. Those could be research fellows who have the same interest and / or the study purposes (Dillman, 1978; p.156; Shah, Braganza, and Morabito, 2007; p.515). 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 (Dillman, 1978; p.157). 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.

Modifications to the questionnaire such as item rewording, recategorising, and deleting in some instances were made as a result of this pilot. Accordingly, our questionnaire was comprised of nine sections, with Intention to use (IU) and Actual Use (AU) added to the demographic section, that included 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 (Table 13).

| Construct | | Indicators | |
|---|-----------------------------------|--|---|
| Nepotism | 01 | Customers being of my tribe gives an advantage over others | |
| | 02 | Employees are rewarded according to their tribal relationship with senior management | |
| | 03 | I find myself enforced to help customers from my tribe | |
| | 04 | Being loyal to my tribe is essential | |
| | 05 | Customers being of my region gives an advantage over others | |
| | 06 | Employees are rewarded according to their regional relationship with senior management | |
| | 07 | I find myself enforced to help customers from my region | |
| | 08 | Being loyal to my region of birth is essential | |
| Lack of Interaction with other Humans (HI) | 01 | e-services are unable to cater for special cases like traditional services do | |
| | 02 | I feel threatened by the way e-services could affect our community life | |
| | 03 | e-services isolate me from personal interaction with customer | |
| Service Oriented Culture (SC) | 01 | We express commitment to our customers | |
| | 02 | We create value for our customers | |
| | 03 | We understand the needs of our customers | |
| | 04 | We set customers satisfaction objectives | |
| | 05 | We measure customer satisfaction | |
| | 06 | Our personnel share any new information they have about other organisations that serve our customers | |
| | 07 | We respond rapidly to the actions of other organisations that serve our customers | |
| | 08 | Our top managers discuss the strategies that other organisations use with their customers | |
| | 09 | Our contacts with customers are coordinated between our various departments | |
| | 10 | We share information about customers among departments | |
| | 11 | We integrate departmental strategies with regard to customers | |
| | 12 | All of our departments contribute to creating value for customers | |
| Employee Commitment (EC) | 01 | I am willing to put in a great deal of effort beyond that normally expected in order to make this organisation be successful | |
| | 02 | I talk up this organisation to my friends as a great organisation to work for | |
| | 03 | I find that my values and this organisation's values are very similar | |
| | 04 | I am proud to tell others that I am a part of this organisation | |
| | 05 | This organisation inspires the very best in me in the way of job performance | |
| | 06 | I am extremely glad I choose this organisation to work for over others I was considering at the time | |
| | 07 | I really care about the fate of this organisation | |
| | 08 | For me, this organisation is the best of all possible organisations to work for | |
| TAM | Perceived Usefulness (PU) | 01 | Using e-services in my job would enable me to accomplish tasks more quickly |
| | | 02 | Using e-services would improve my job performance |
| | | 03 | Using e-services in my job would increase my productivity |
| | | 04 | Using e-services would enhance my effectiveness on the job |
| | | 05 | Using e-services would make it easier to do my job |
| | | 06 | I would find e-services useful in my job |
| | Perceived Ease of Use (PE) | 01 | Learning to operate e-services would be easy for me |
| | | 02 | I would find it easy to get e-services to do what I want them to do |
| | | 03 | My interaction with e-services would be clear and understandable |
| | | 04 | I would find e-services to be flexible to interact with |
| | | 05 | It would be easy for me to become skilful at using e-services |
| | | 06 | I would find e-services easy to use |
| | Intention to Use | IU | Assuming e-services would be available on my job, I predict that I will use it on a regular basis in the future |
| | Actual Use | AU | How often do you currently use e-services in your work? |

3.7.1.6 The measurement model:

Measurement models are either formative or reflective. It is imperative for a researcher to specify whether his structural model is formative or reflective in order to gain meaningful relationships. To do so, three theoretical aspects should be considered:

First is the nature of the construct. In a reflective model, the latent construct can exist independent from the indicators like in the case of measuring attitudes. Reflective models are very common measurement method in business and related contexts. In comparison, the latent construct in a formative model depends on the researcher's interpretation.

Second the direction of causality between the indicators and the latent construct. In a formative model, the causality flows from the indicator to the construct. Whereas in a reflective model the causality flows in the opposite direction from the construct to the indicator.

Third, the characteristics of the indicators. In a reflective model, change in the latent variable must lead to variation in the indicators. In other words, all indicators share a common theme and can be used interchangeably. This interchangeability enables researchers to measure the construct by sampling a few relevant indicators underlying the domain of the construct. In the formative models, on the other hand, the domain of the construct is sensitive to the number and types of indicators the researcher selects. Adding or removing an indicator can change the conceptual domain of the construct significantly as the indicators define the construct.

Based on the previous distinctions, our measurement model is considered reflective. It is very common in studies investigating personality and attitude, as the case of our current study, to use reflective measurement models (Coltman, Devinney, Midgley, and Venaik, 2008).

3.7.1.7 The statistical procedure (PLS path analysis):

Partial Least Squares (PLS) path analysis is a relatively modern technique, which is becoming increasingly more popular, particularly in business research (Chin, 1998;

Temme et al., 2006; Henseler et al., 2009; Wetzels et al., 2009; Anderson and Swaminathan, 2011). Studies that adopted TAM have also used PLS (Bagozzi, 2007; Gefen et al., 2003; Venkatesh and Bala, 2008; p.284). It operates by partitioning the multidimensional variance to predict hypothetical cause and effect relationships between variables (Haenlin and Kaplan, 2004; Hair et al., 2006). The analysis assumes that all 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 and 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 uni-dimensional 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 generalised statistics packages such as SPSS and requires the use of specific software. The analysis was performed using Smart-PLS Version 2.0 (Ringle et al., 2005). Smart-PLS was chosen because it is very user friendly. Its GUI (graphic user interface), includes tools to enhance the colour, size and layout of the path diagram, permits analysis to be performed relatively quickly and easily (Temme et al., 2006). Unlike LISREL and other methods PLS can perform the whole model test at one time (Halawi and Mccarthy, 2008; p.97).

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 identified 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. A list of all the latent and indicator variables and the

results of reliability analysis using SPSS, is provided in Table 14.

| Latent variable | Indicator | | Scores | Cronbach's alpha |
|---|------------------|--|---|-------------------------|
| Nepotism | N01 | Customers being of my tribe gives an advantage over others | 1 = totally disagree 7 = totally agree | .899 |
| | N02 | Employees are rewarded according to their tribal relationship with senior management | | |
| | N03 | I find myself enforced to help customers from my tribe | | |
| | N04 | Being loyal to my tribe is essential | | |
| | N05 | Customers being of my region gives an advantage over others | | |
| | N06 | Employees are rewarded according to their regional relationship with senior management | | |
| | N07 | I find myself enforced to help customers from my region | | |
| | N08 | Being loyal to my region of birth is essential | | |
| Fear of a Lack of Interaction with other Humans (HI) | HI01 | e-services are unable to cater for special cases like traditional services do | 1 = totally disagree 7 = totally agree | .698 |
| | HI02 | I feel threatened by the way e-services could affect our community life | | |
| | HI03 | e-services isolate me from personal interaction with customer | | |
| Service Oriented Culture (SC) | SC01 | We express commitment to our customers | 1 = totally disagree 7 = totally agree | .950 |
| | SC02 | We create value for our customers | | |
| | SC03 | We understand the needs of our customers | | |
| | SC04 | We set customers satisfaction objectives | | |
| | SC05 | We measure customer satisfaction | | |
| | SC06 | Our personnel share any new information they have about other organisations that serve our customers | | |
| | SC07 | We respond rapidly to the actions of other organisations that serve our customers | | |
| | SC08 | Our top managers discuss the strategies that other organisations use with their customers | | |
| | SC09 | Our contacts with customers are coordinated between our various departments | | |
| | SC10 | We share information about customers among departments | | |
| | SC11 | We integrate departmental strategies with regard to customers | | |
| | SC12 | All of our departments contribute to creating value for customers | | |
| Employee Commitment (EC) | EC01 | I am willing to put in a great deal of effort beyond that normally expected in order to make this organisation be successful | 1 = totally disagree 7 = totally agree | .898 |
| | EC02 | I talk up this organisation to my friends as a great organisation to work for | | |
| | EC03 | I find that my values and this organisation's values are very similar | | |
| | EC04 | I am proud to tell others that I am a part of this organisation | | |
| | EC05 | This organisation inspires the very best in me in the way of job performance | | |

| | | | | |
|-----------------------------------|------|---|---|----------------|
| | EC06 | I am extremely glad I choose this organisation to work for over others I was considering at the time | | |
| | EC07 | I really care about the fate of this organisation | | |
| | EC08 | For me, this organisation is the best of all possible organisations to work for | | |
| Perceived Usefulness (PU) | PU01 | Using e-services in my job would enable me to accomplish tasks more quickly | 1 = very unlikely | .870 |
| | PU02 | Using e-services would improve my job performance | 7 = very likely | |
| | PU03 | Using e-services in my job would increase my productivity | | |
| | PU04 | Using e-services would enhance my effectiveness on the job | | |
| | PU05 | Using e-services would make it easier to do my job | | |
| | PU06 | I would find e-services useful in my job | | |
| Perceived Ease of Use (PE) | PE01 | Learning to operate e-services would be easy for me | 1 = very unlikely | .814 |
| | PE02 | I would find it easy to get e-services to do what I want them to do | 7 = very likely | |
| | PE03 | My interaction with e-services would be clear and understandable | | |
| | PE04 | I would find e-services to be flexible to interact with | | |
| | PE05 | It would be easy for me to become skilful at using e-services | | |
| | PE06 | I would find e-services easy to use | | |
| Intention to Use | IU | Assuming e-services would be available on my job, I predict that I will use it on a regular basis in the future | 1 = very unlikely 7 = very likely | Not applicable |
| Actual Use | AU | How often do you currently use e-services in your work? | 1 = do not use 6 = several times a day | Not applicable |

Table 14: Variables and indicators reliability used in PLS path analysis

3.8 Chapter conclusion:

This study attempts to identify the uncovered cultural values that impede e-service use in Saudi Arabia. Potential designs and justification of the selected method for this study were introduced in this chapter. Using both qualitative and quantitative in one project under a mixed method approach (Morse, 2003; p.190) does not necessarily mean the end of the methodological problems; it creates other problems than in applying one method (Bazeley, 2004; p.2). However, cultural values that have been identified by qualitative and quantitative approaches are more comprehensive than those that have been identified by using one approach (Yauch and Steudel, 2003; p.478). This chapter discussed mixed-methods design in detail and presented both its qualitative and

quantitative phases with their aim, sample, and procedure.

Chapter 4: Results / Findings

4.1 Chapter introduction:

This chapter presents the results of both the qualitative and quantitative phases of the study. The qualitative phase was conducted through individual interviews and focus groups. The quantitative phase was conducted through an online questionnaire. The first two sections present individual interviews and focus groups results respectively. The third section starts by defining the constructs measured and tested by the questionnaire, then reporting the sample process with the response rate. It will then illustrate the statistical procedure by providing the hypothetical models with their predicted and real outcomes. The chapter is concluded with a summary of the results.

4.2 Individual interviews:

Three out of four proposed interviews were completed; they were used to identify the preliminary success/failure key issues for e-business implementations. Samples were as follow: organisation (A) is a Saudi private sector company, while organisation (B) is a Saudi public sector organisation, and (C) is an Australian public sector organisation. The sequence of coding them refers to the interview occurrence time and does not mean any thing else. Interviews were scripted and manually analysed. The analysis results of these interviews are categorised and discussed below with accordance to each of the interviews' questions:

- **The establishment of e-business implementations:** the beginnings are varying between the three interviewed organisations. Organisation (A) have had three phases for the change so far; the first phase lasted for three years and started at the same time with the organisation's privatisation in the mid of 1998 – till the mid of 2001. This phase was very simple and sort of unplanned, its concern was to “build the capabilities and distribute the services”. The second phase started from the mid of 2001 – till the end of 2007 with the assistance of a famous international consultancy group. There were changes in the business processes with a lot of consideration for customer care systems. The third and last phase, started December 2007, contained restructuring for the whole company with more focus on customer. While organisation (B) started to implement e-

business in 2005, organisation (C) started in 2000 – 2001 and its actual transaction started in 2003 – 2004. Although there was a gap in the establishment of e-business implementation between the three participant organisations they all started with establishing an informative and statistics website.

- **The motivations:** the participants seem to agree that because they want to be in the competition, the business environment enforces them to somehow implement e-business. Although “there was no governmental mandate behind starting the implementation” as company (C) said, it was a supportive factor according to company (B). The representative of organisation (A) supports this by saying “the electronic services are not optional now”. Other motivations are various: the encouragement made by technology, top management support, cost reduction and customer satisfaction.

- **The obstacles identified:** organisation (A) contends that public sector should work more rapidly to implement e-services; “there is a strategic plan, financial support from the government, but there is no feedback that convinces citizens about the implementations, they have a very slow progress and no body knows when those guys will be ready”. There was a nice follow up program developed by a committee formed of academic and field experts. This program lasted for one year and was suddenly stopped by the government without any reasons given. The lack of an appropriate follow up strategy to ensure an effective implementation might be another obstacle.

Cultural values were proposed as impediments in the first stages of the implementation. In fact about “75%” of the obstacles to e-business implementations were classified by company (B) as cultural. However, once the implementation process started there was a high demand for more services to be automated. These cultural values which impede e-business implementation vary between lack of awareness on the advantages of e-business, bureaucracy, resistance to change, personal fears and the leadership. The representative of this organisation emphasised the need for intensive awareness campaign on the benefits of implementing e-services.

Organisation (C) representative stated that whatever the obstacles identified there is always a strategy to overcome them, “just understand what they are and what strategy is suited to overcome the obstacles”. Infrastructure issues, for instance, can be resolved

by investing more money into it. They classified the obstacles under four groups: political, financial, technical, and human.

-E-business models: all participants have obtained assistance in choosing and restructuring the business model they adopted. Firm (A) said: “we have not done it all, we asked a consultancy company to help us draw the map in the beginning. But now, proudly our employees understand the game, the consultancy contracts budget for this purpose decreased from 20% to 3% nowadays”. Another view made by company (B) “you must obtain external assistance regards the implementation; it is difficult to rely only on the organisation’s employees. I think all organisations received external assistance in this regard”. This was supported by company (C) “internal employees are very well in understanding the business process and managing the project, but we used external contractors to help”.

- **Lessons learnt:** “you need a good communication program in the e-business implementation, because you need people to encourage and not to hinder you”. This is one of the lessons learnt by organisation (A). Organisation (B) and (C) agreed that it costed them time and money but “the benefits are now coming”. Company (C) representative added you should:

“Understand the true cost of developing e-business approach because there are a lot of costs involved like infrastructure and people; try to adopt a phased approach instead of automating the whole service at once, review the process because if you can automate them it’ll give better customer experience. Test the potential performance issues (volume testing), it is critical how many people will visit, they will not be happy if they have bad experience while visiting the website”.

- **Recommendations:** the sponsorship or support from the top management is a very successful way to hinder and overcome any difficulties one may encounter in the implementations. This was reported by company (A) who also stressed establishing a committee to follow up and assess the up-taking process. Organisation (B) suggested that before starting the implementation an accurate strategic plan with consideration to available technology, business process and human resources must be obtained. Finally, organisation (C) recommended that you should “understand the customers and their

needs, understand the real cost, understand the benefits and be able to measure them”.

- **The current situation:** it seems that company (A) has achieved an advance stage of the implementation “we could be 97% electronic... we are taking the last 3%... and we have a plan for the next two years to be a completely paperless company”. While organisation (B) and (C), have listed their whole services in a step toward automating them. Their criteria for this list were: easiness, more likely to be adopted by customers (made through customer survey), cost, service importance and the organisation’s ability to implement it. All participant organisations acted as a reference or a good example for other companies either from public or private sector.

Finally, Table 15 summarises the obstacles identified in the literature and by the preliminary interviews analysis. These interviews have not revealed novel results since we targeted successful implementers. Failed firms often try to hide their problems and not make them public (Gargeya and Brady, 2005; p.505; Morse, 2003; p.203). Consequently, a supplementary qualitative method was taken through conducting focus groups as an attempt to help modify the scope of our research and determine the issues that need further investigation. The purpose of this was to ensure the research could develop a framework of cultural values that impact on e-service use in Saudi Arabia.

| Impediments | Identified by | |
|---|---------------|------------|
| | Literature | Interviews |
| Politics | Yes | Yes |
| Culture | Yes | Yes |
| Technical issues (Infrastructure, Integration, Collaboration, Security, | Yes | Yes |
| Strategy | Yes | Yes |
| Structure | Yes | |
| Human resources | Yes | Yes |
| Technology | Yes | |
| Resistance to change | Yes | Yes |
| Privacy | Yes | |
| Lack of top management support | Yes | Yes |
| Business environment | Yes | Yes |
| Legal policies | Yes | |
| Lack of awareness | Yes | Yes |
| Lack of qualified people | Yes | Yes |
| Lack of training opportunities | Yes | |
| Business culture | Yes | |
| Website issues (content, speed) | Yes | Yes |
| Need for face-to-face communication | Yes | Yes |
| Fears of competition | Yes | |
| Financial resources | Yes | Yes |
| Trust | Yes | Yes |

| | | |
|---|-----|-----|
| Ineffective solution design | Yes | |
| Lack of time | Yes | |
| Nature of business | Yes | |
| Employees reluctance | Yes | Yes |
| Demographic features | Yes | Yes |
| Unstable business objectives | Yes | |
| Fraud | Yes | |
| Change to the existing practice | Yes | |
| Education | Yes | Yes |
| Lack of concern to use credit card transactions | Yes | |
| PC-penetration | Yes | |
| Less priority | Yes | |
| Literacy rate | Yes | |
| Managers preference of traditional ways of doing business | Yes | |
| Language | Yes | |
| Lack of co-operation between organisations | Yes | |
| Lack of continuous evaluation | Yes | Yes |

Table 15: obstacles identified by the literature and the preliminary interviews

4.3 Focus groups:

The results from four Focus Groups show that organisations, rather than users are responsible for the failure of e-service use due to the role the media and the Internet have on educating users of what is happening around the world. There are different levels of cultural impact associated with e-service use in Saudi Arabia. Surprisingly, some participants see the national culture as a facilitator rather than a hindrance as we assumed in the beginning of our research.

The focus group interviews were conducted in Arabic and scripted into English by the researcher to ensure accuracy. Keywords were extracted manually from the transcript and resulted in 55 themes (Table 16). Thematic analysis was conducted and 27 key themes were identified which were comprised of 55 sub-themes/factors. Whether these themes related to experts or users was then determined and can be seen in Table 17. Then we went back to the literature to determine whether these keywords had been used and as a result, 51 of the 55 were excluded as they have been investigated in the literature. After eliminating factors that were considered beyond the scope of this study, such as weak postal service, the factors identified in these interviews were then contrasted with the findings of the literature as seen in Table 15. Eventually, we came up with four out of fifty five sub-themes/factors that had not been considered in the literature and form the primary contribution of this study. In order to further investigate these four factors, a quantitative questionnaire targeting employees of

public and private sector organisations in Saudi Arabia and their customers was carried out in order to find how each one of these factors contributed to e-service adoption and use. The quotations in this section shown in italics are obtained from the focus groups' participants, unless otherwise specified.

| | | |
|---|---------------------------------------|---|
| Service oriented culture | Readiness | The employee commitment |
| CRM | New culture | Frustrated environment |
| The lack of vision's clarity | The staff attitudes | Organisation reputation |
| Business process reengineering | Media role | Nepotism |
| System design | Awareness | Tribalism |
| Achievement | Temperamental human | The desire of maintaining authority |
| Collaboration | Service demand | Bureaucracy |
| The lack of integration | Service nature | Regionalism |
| The lack of database | Post services (Mail) | The need of feeling things |
| The culture of being data provider | The lack of knowledge | Generation gap |
| Improvisation (the lack of planning) | Education | Religious conduct |
| Service marketing | English language | The lack of interaction with other humans |
| Organisations misunderstanding of e-service concept | Follow up role | The problem is in the organisation part rather in the users |
| Enforcement | Regulatory role | Time |
| Willingness | KPIs | Affordability |
| HR | Hard ware | Trust |
| Recruitment | Communication | Organisation maturity level |
| MCS policies | Mentality | |
| Resistance to change | Weak salary packages in public sector | |

Table 16: 55 themes from focus groups

| Experts factors | Users factors |
|---|--|
| Service oriented culture, CRM | Nepotism |
| The lack of clear vision, Business process reengineering (complexity), System design and Achievement. | Tribalism |
| Collaboration, the lack of integration, Database and the culture of being data provider. | The desire of maintaining authority, bureaucracy |
| Improvisation (the lack of planning) | Regionalism |
| Service marketing | The need of feeling things |

| | |
|---|---|
| Organisations misunderstanding of e-service concept | Generation gap |
| Enforcement | Religious conduct |
| Willingness | Willingness |
| Media role, Awareness | Missing humanity |
| Temperamental human | Mentality |
| HR, Recruitment, Ministry of Civil Services policies, Resistance to change, Readiness, New culture and the staff attitudes. | The lack of knowledge, Education and English language |
| Service demand, service nature | |
| Post services | |
| The lack of knowledge, Education, and English language | |
| Follow up role, Regulatory role, KPIs | |
| Hard ware, Communication | |
| Mentality | |
| Weak salary packages in public sector, the career path, frustrated environment and organisation reputation. | |

Table 17: themes for each targeted sample group

- **Nepotism:** is defined earlier in section 2.3.2.1, but to reiterate it is “using your power or influence to get good jobs or unfair advantages for members of your own family” (dictionary.cambridge.org). In Saudi Arabia with its various tribes and diverse landscapes, there are two main drivers of nepotism: tribe and region. As a result, subcultures are widely familiar and their impact is obvious on the life style and business. This is clearly recognised by a participant who said, *“Nepotism is one of the Saudi culture components that negatively effect e-service implementation”*. Nepotism in our scope is as defined by Cambridge and extended to include members of your region in addition to your family.

Nepotism plays an essential role in the recruitment process. An interviewee said *“some applicants have fewer skills than others, but because of nepotism, they get the job. This is reflected by the level of services, especially the e-services, provided by this firm”*. As another participant mentioned,

“There are some unqualified people who perfectly know how to deal with technology. However they do not want to apply online because they have not met the requirement of the job they applied for and their only hope is nepotism. If the

recruitment was only available online, there would not be nepotism and this would help the development of the country”.

An interviewee contends *“if they resist using an e-service this means they haven’t met the requirement and need nepotism which they cannot have online”*. Alshehry et al. (2006) confirmed the latter statement and added *“this kind of corruption (...) will be something from the past because you cannot do so without the permission of the system”*. For this reason some of the decision makers would prefer not to implement e-service to avoid losing the privileges that nepotism brings. One of the Experts group interviewees mentioned an example of a manager who said *“if we implemented e-services then what is the value of my signature”* as an indication of losing his power.

The completion of the process from a user’s point of view is another issue; one participant said: *“if you do not know the employee you cannot guarantee your work will be completed”*. Alternatively, *“being of the employee’s tribe or region will give you a priority over others”*. *“Nepotism is more popular in Saudi Arabia but still exists elsewhere. It has negatively impacted on the improvement of e-service implementation”* since *“we are a society that loves”* it. However, there is a positive effect that tribalism has; one of the participants illustrated it by the role of spreading *“electronic culture between the family and relatives. In other societies, especially in the West, such relationships are not important; a person should attend workshops to be trained in e-service use”*.

Some could confuse nepotism with corruption, as in Alshehry et al. (2006), and to elaborate on this; nepotism in our scope is as defined by Cambridge and extended to include members of your region in addition to your family. It is for the sake of contribution to such relationships without any cost associated as in the case of corruption.

- The fear of a lack of interaction with other humans: 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. They stressed that we are still human and there is a need for some circumstances to be considered and looked at separately even if the system has refused it. One participant 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 when we reach the same stage, they prefer to be physically surrounded by their families and not by using technology”.

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; p.290) have mentioned the lack of human interaction as a benefit of adopting e-government. 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”*.

Again some could mix up and merge this factor under nepotism while, in fact, it is not. The special consideration in this factor comes mainly from the sense of humanity and not from sharing the same tribe or region.

- **Service oriented culture:** Most of the participants expressed dissatisfaction with the Saudi public sector organisations. One said: they *“are not customer focused; they do not have organisations as the service oriented culture”*. Simply put, the customer is the last thing we think about.

Reasons behind the lack of service orientation in Saudi organisations in general and

public sector specifically are various. One is the disrespect of “work conduct”. Another is that:

“People who have authority are not interested in implementing e-services because whatever business they need, they can do it easily by abusing their position. As a result, they do not care if e-business is implemented correctly or not, what they care about is that their and their relatives’ business is done”.

Most public sector employees see their job as the financial source to cope with their lives and not as a way to contribute to society and thus they do not care about serving customers. Government could be responsible for the latter reason since it appears to citizens that one of its “obligation is to recruit 70% of its people”, an Expert participant said. Equally important is the lack of strategic goals of some organisations that has enhanced the issue. One participant said “that we are operational culture; we come to work without knowing what goals need to be achieved and strategies need to be followed, so today is exactly as yesterday and tomorrow will be the same”.

Some organisations could refer to the lack of human resources as an impediment to e-service implementation, “in the public sector organisations it is not accurate sometimes due to the lack of the current employees’ willingness to work” as one participant contended.

Maintaining good quality customer service is an important issue when doing business either traditionally or electronically. One participant mentioned an example about the advanced experience in e-service use of Malaysia by saying:

“I’m not talking about a developed country; if I’m a Malaysian organisation that issues driving licenses for citizens my aim will be the way citizens receive the service. This is the kind of culture we miss in Saudi Arabia and if we continue not to have it, we might only have been partial but not the full success”.

By contrast in Saudi Arabia, there are some organisations that have excellent e-services but bad interaction behaviour with customers at the same time. An interviewee stated the example of:

“a public sector organisation and one of the best of current e-services providers. They

use the Internet, databases, service centres, kiosks, Interactive Voice Response (IVR), and the traditional way of doing business. In addition they are working on the awareness improvement through the different means of media, but in terms of their regulations, the quality of service and the interaction with customers, there are always issues as in some other organisations”.

Another participant emphasised this by stating: *“if we have such an issue this would be because of the quality of organisation’s interaction with customers”.*

On the other hand, there are other organisations that are *“working very hard depending mainly on its individuals’ enthusiasm”.* An interviewee gave an example of a Saudi Arabian Deputy Minister, who just took the role recently and *“has positively impacted on e-services implementation in his department and different top management in other departments as well. He started this by marketing the services of his department through the mobile service centres that move between large organisations”.* A participant supported this when he was asked about a successful organisation and how they succeed, he said: this was *“because the staff are initiators and active and basically the manager of the department”.* The problem of some organisations that already have e-services is that they are not marketing their services; this would result in customers not using them. A participant said: *“there are some e-services either informative or integrated that nobody knows about and so they still do it manually and sometimes get refused because it is available online”.* Some organisations think that their services are not in demand; this in fact is not true if they make sufficient marketing efforts.

To conclude the discussion about this factor, organisations should do more to improve their services; the Saudi Arabian Department of Zakat and Income Tax, for instance, still as one of the interviewees said: *“ask for information from other organisations while they should be the base of e-government as tax departments in other countries”.* *“People have several issues like the traffic and need clear, convenient and fast process procedures and good interaction”.* *“Most people use the Saudi payment system (SADAD) because it is a high-quality service; the quality of the service has created the trust and this of course has encouraged the citizens to use it”.* Finally, a participant concluded his answer by saying *“I wish to see our public sector concentrating on serving customers like some private sector companies do, even if the outcomes are different (i.e. money in case of private and service*

for public sector)".

- **The employee commitment:** One participant mentioned an interesting story of his father and uncle as an example of the career sector (public / private); they both are in their 50s and studied in the United States. He said:

"There is no hope in my father doing banking transactions electronically, while my uncle is willing to do everything through the Internet. Age of course is a partial factor, but it is linked to the mentality at the end. The career path may have an effect; you may find one of them working in private sector (his uncle) all of his life and the other in public sector (his father) which result in differences. Although they both have lived and experienced other cultures, but it is at the end culture and mentality".

By mentioning age, another participant said: *"when it comes to the culture of elder people above 50s who are now occupying most of the top management positions in public sector organisations, nearly every one of them does not support e-services".* While the higher education sector, in contrast, has no problems since many of its customers are younger people who, *"prefer and very willing to use e-services".*

Although there are some advanced public organisations in e-service use due to the high cultural environment within the organisation. The common stereotype work style for the public sector organisations is *"operational, or in other words, has a daily routine"* which make the organisations environment *"frustrated"* and as a result intelligent employees have no interest in working for them. One reason behind this is stated by a participant:

"We have a problem in Saudi Arabia as employees or graduates; when seeking a job we look for the general commissions and organisations that have a better allowance, reputation, culture and environment. We have discrimination. We classified the organisations into different groups according to the financial features they give to their staff and most of the public sector organisations come in the third or fourth place which means you have no value if you have been hired in such an organisation".

It has been suggested that in Saudi Arabia *“organisations can solve these issues and cover the gap by utilising financial features given by the Ministry of Finance, marketing for their jobs and enhancing the internal environment”*. One of the interviewees said he joined a public sector department *“because of their reputation, experience, training opportunities and their promise to me that my value will increase later. They really utilised their resources”*. Another solution has already been used in service centres of a public commission; each service centre has staff from other anticipated different public sector departments in order to make the process easier. These staff work very hard in these service centres *“because they gain allowance on each transaction they finished, but they would not spend the same effort in their original workplace”*. This confirms what has been stated by another participant that, *“public sector employees do not respect the work conduct”*.

The issue of differences in the work environment between public and private sector in Saudi Arabia starts from the base. As indicated by one of the participants: *“most employees within the domain of Ministry of Civil Service, the ministry that is responsible to recruit public sector employees, do not have the sufficient qualification to deal with technology, while their counterpart in the private sector does. Hence few public sector organisations implement e-services depending on their human resources”*. Moreover, *“There are also governance problems; it is hard for the staff and not the system to accept emails or online forms as evidence after the era of certified paper documents”*. All in all, *“there is always a solution but there is no full willingness”* to overcome such issues.

In conclusion, the results from the focus groups revealed four Saudi cultural values that have not been considered to date. These four are: Nepotism, the fear of a lack of Interaction with other Humans, Service Oriented Culture, and Employee Commitment. In order to obtain a general view of these values, a quantitative phase by conducting a questionnaire targeting employees in both sectors (public and private) in Saudi Arabia followed.

4.4 Questionnaire:

The quantitative phase was conducted through an online questionnaire targeting employees of public and private sector in Saudi Arabia between 13 Aug and 13 Sep

2011.

4.4.1 Sample profile:

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 Figure 5, 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.

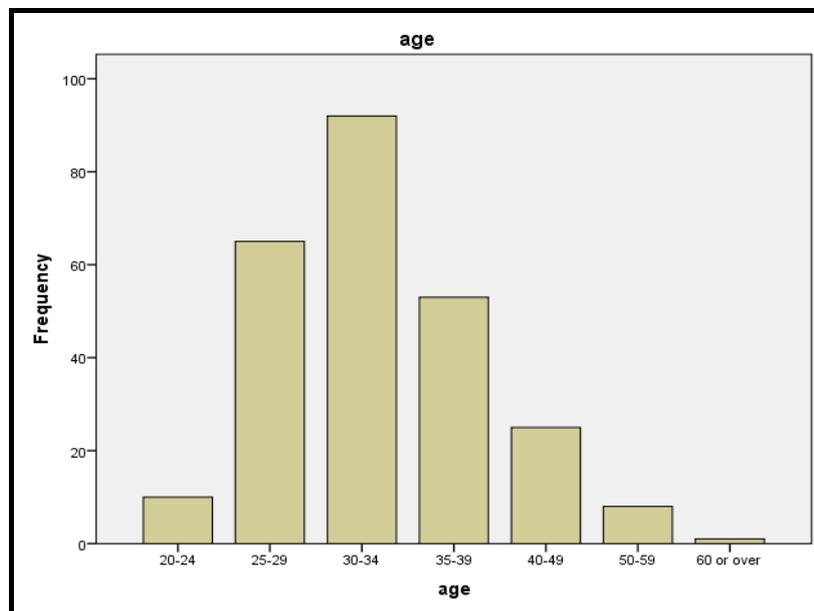


Figure 5: age profile for the research sample

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 (Figure 6).

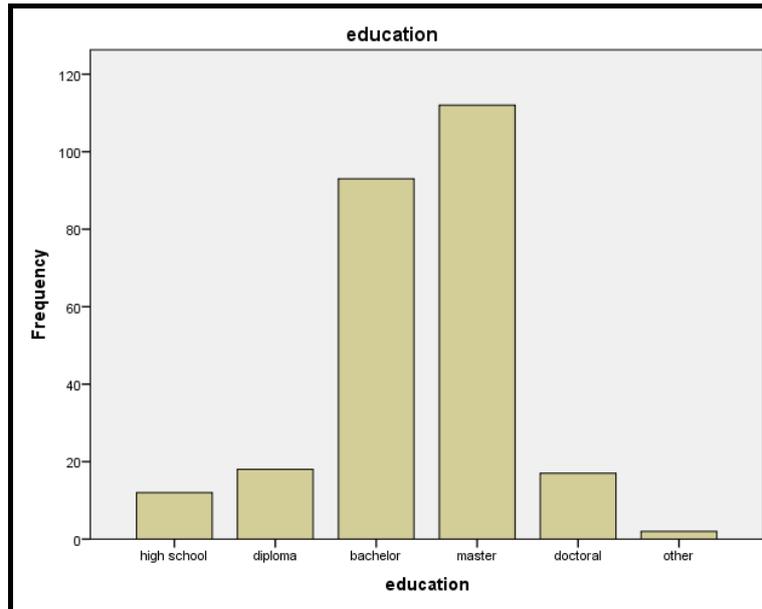


Figure 6: education level for the research sample

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.

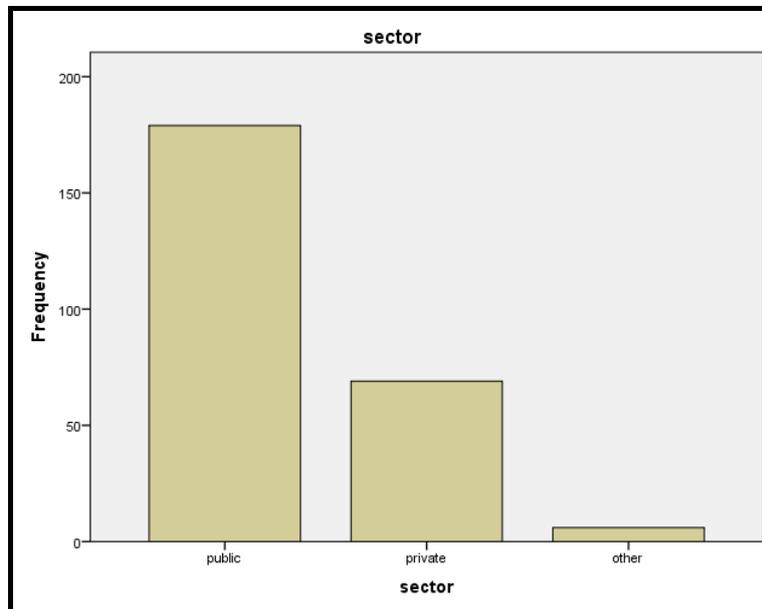


Figure 7: career sector for the research sample

Table 18 summarises the demographic characteristics of the research participants according to their age, education level and sector.

| | Age | | Education | | | Sector | | |
|------------|-----|-------|-----------|-----|-------|---------|-----|-------|
| | No. | % | | No. | % | | No. | % |
| 20-24 | 10 | 3.9% | H. school | 12 | 4.7% | Public | 179 | 70.5% |
| 25-29 | 65 | 25.6% | Diploma | 18 | 7.1% | Private | 69 | 27.1% |
| 30-34 | 92 | 36.2% | Bachelor | 93 | 36.6% | Other | 6 | 2.4% |
| 35-39 | 53 | 20.9% | Master | 112 | 44.1% | | | |
| 40-49 | 25 | 9.8% | Doctoral | 17 | 6.7% | | | |
| 50-59 | 8 | 3.1% | Other | 2 | .8% | | | |
| 60 or over | 1 | 4% | | | | | | |
| Total | 254 | 100% | | 254 | 100% | | 254 | 100% |

Table 18: Demographic characteristic of the participants

4.4.2 Exploratory Factor Analysis (EFA):

Exploratory factor analysis (EFA) is a commonly “applied statistical technique in the social sciences” and has been used for various purposes. Developing an instrument is one of those (Costello and Osborne, 2005; p.1). Field (2009) added two more uses of this technique: first is “to understand the structure of a set of variables and second is to reduce a data set to a more manageable size while retaining as much of the original information as possible” (Field, 2009; p.628). As some of the measurement used in our study were newly created or used in this context, we conducted the EFA three times using IBM SPSS Statistics software. First, the extraction method was based on “Eigen values greater than one” function, which resulted in six factors as in Table 19.

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------|-------------|-------|-------------|-------------|-------------|-------------|
| NT1 | -.010 | -.043 | .774 | -.010 | -.019 | -.022 |
| NT2 | .007 | -.045 | .352 | .029 | .492 | -.096 |
| NT3 | .015 | -.033 | .839 | -.017 | -.060 | -.040 |
| NT4 | .000 | .031 | .651 | .106 | .000 | .038 |
| NT5 | .004 | .034 | -.016 | .000 | .814 | -.015 |
| NR1 | -.018 | .005 | .800 | -.051 | .011 | .076 |
| NR2 | -.018 | -.019 | .214 | .002 | .711 | .049 |
| NR3 | .059 | -.007 | .842 | -.072 | -.065 | -.062 |
| NR4 | -.057 | .077 | .636 | .094 | .041 | .045 |
| NR5 | .021 | .021 | -.089 | -.072 | .882 | .049 |
| HI1 | -.011 | -.083 | -.031 | -.007 | .078 | .517 |
| HI2 | -.084 | .015 | .035 | .018 | -.007 | .805 |
| HI3 | .018 | -.031 | -.004 | .055 | -.019 | .674 |
| SC01 | .097 | .016 | .063 | .809 | -.077 | .035 |
| SC02 | .168 | -.019 | .003 | .822 | .000 | .001 |
| SC03 | .121 | -.018 | -.004 | .809 | -.027 | .011 |
| SC04 | .304 | .009 | -.021 | .662 | .037 | .013 |
| SC05 | .500 | -.001 | -.071 | .373 | .114 | .004 |
| SC06 | .568 | .112 | -.005 | .148 | .049 | -.056 |
| SC07 | .737 | -.009 | .038 | .041 | -.016 | -.083 |
| SC08 | .839 | -.021 | -.086 | -.009 | -.007 | -.007 |
| SC09 | .883 | -.011 | -.011 | -.023 | .047 | -.024 |

| | | | | | | |
|-------------|-------------|-------------|-------|-------|-------|-------|
| SC10 | .961 | .012 | .043 | -.141 | -.037 | .030 |
| SC11 | .951 | -.049 | .019 | -.078 | -.004 | .039 |
| SC12 | .735 | -.017 | .039 | .124 | -.074 | .000 |
| EC1 | -.137 | .473 | -.003 | .156 | .002 | -.132 |
| EC2 | -.096 | .768 | .044 | .095 | -.052 | -.075 |
| EC3 | .148 | .692 | .031 | .006 | -.017 | .135 |
| EC4 | -.001 | .851 | -.002 | .024 | .005 | -.032 |
| EC5 | .136 | .728 | .021 | -.079 | -.058 | .110 |
| EC6 | -.083 | .878 | -.011 | -.051 | .028 | .012 |
| EC7 | -.003 | .653 | -.033 | -.049 | .055 | -.047 |
| EC8 | .068 | .739 | -.024 | -.072 | .058 | -.042 |

Table 19: first attempt of the EFA

In the second attempt we chose the extraction method on another function provided by the software called “fixed number of factors”. We tried to force the measurement items under five factors as our initial assertion was that Nepotism construct will be divided into two sub-constructs: Tribalism (NT1, NT2, NT3, NT4, and NT5) and Regionalism (NR1, NR2, NR3, NR4, and NR5). However, the results of this attempt showed they all loaded on one factor (Table 20).

| | 1 | 2 | 3 | 4 | 5 |
|-------------|-------------|-------------|-------------|-------------|-------------|
| NT1 | .012 | .731 | .004 | .010 | .002 |
| NT2 | -.005 | .718 | -.082 | .007 | -.117 |
| NT3 | .039 | .756 | .021 | .008 | -.009 |
| NT4 | .019 | .631 | .067 | .119 | .055 |
| NT5 | -.038 | .575 | -.064 | -.047 | -.055 |
| NR1 | .001 | .778 | .049 | -.032 | .095 |
| NR2 | -.046 | .730 | -.091 | -.037 | .009 |
| NR3 | .079 | .754 | .049 | -.043 | -.029 |
| NR4 | -.042 | .648 | .107 | .106 | .059 |
| NR5 | -.038 | .550 | -.086 | -.110 | -.004 |
| HI1 | -.018 | .023 | -.100 | -.016 | .509 |
| HI2 | -.088 | .017 | .009 | .016 | .806 |
| HI3 | .015 | -.029 | -.037 | .053 | .677 |
| SC01 | .098 | .007 | .020 | .820 | .038 |
| SC02 | .165 | .008 | -.028 | .827 | -.003 |
| SC03 | .118 | -.019 | -.024 | .816 | .009 |
| SC04 | .300 | .011 | -.004 | .661 | .006 |
| SC05 | .491 | .020 | -.023 | .364 | -.008 |
| SC06 | .565 | .034 | .105 | .145 | -.061 |
| SC07 | .741 | .025 | -.005 | .042 | -.083 |
| SC08 | .839 | -.090 | -.026 | -.013 | -.009 |
| SC09 | .882 | .023 | -.018 | -.028 | -.028 |
| SC10 | .966 | .010 | .019 | -.140 | .034 |
| SC11 | .954 | .012 | -.049 | -.080 | .040 |
| SC12 | .740 | -.019 | -.008 | .129 | .005 |
| EC1 | -.138 | .000 | .473 | .155 | -.136 |
| EC2 | -.096 | .001 | .779 | .097 | -.074 |
| EC3 | .145 | .011 | .695 | .006 | .134 |
| EC4 | -.005 | -.002 | .852 | .021 | -.036 |

| | | | | | |
|------------|-------|-------|-------------|-------|-------|
| EC5 | .135 | -.031 | .737 | -.078 | .112 |
| EC6 | -.088 | .006 | .875 | -.056 | .006 |
| EC7 | -.007 | .007 | .646 | -.057 | -.055 |
| EC8 | .063 | .017 | .732 | -.079 | -.050 |

Table 20: second attempt of the EFA

From the previous two attempts there was a potential to split the Service Oriented Culture construct into two groups: 4 items that could be named "SC behaviour", and the remaining 8 items could be named "SC actions" or so. However, the study we adapted the items from has used these 12 items to measure SC and different 7 items to measure SC activities. Moreover, those 12 items when forced were loaded on one construct as will be shown in the third attempt.

The third and last attempt of the Exploratory Factor Analysis was through forcing the measurement items to load on four groups. Consequently, four factors represent our hypothetical model were shown (Table 21).

| | 1 | 2 | 3 | 4 |
|-------------|-------------|-------------|-------------|-------------|
| NT1 | .021 | .731 | .002 | .000 |
| NT2 | .004 | .719 | -.083 | -.120 |
| NT3 | .045 | .757 | .020 | -.009 |
| NT4 | .122 | .624 | .051 | .045 |
| NT5 | -.076 | .576 | -.061 | -.054 |
| NR1 | -.027 | .779 | .049 | .095 |
| NR2 | -.075 | .731 | -.091 | .009 |
| NR3 | .039 | .758 | .056 | -.025 |
| NR4 | .053 | .640 | .090 | .046 |
| NR5 | -.132 | .554 | -.077 | .003 |
| HI1 | -.036 | .020 | -.107 | .513 |
| HI2 | -.078 | .011 | -.010 | .791 |
| HI3 | .053 | -.034 | -.052 | .674 |
| SC01 | .785 | -.026 | -.053 | -.022 |
| SC02 | .853 | -.024 | -.096 | -.057 |
| SC03 | .801 | -.051 | -.094 | -.047 |
| SC04 | .851 | -.010 | -.057 | -.033 |
| SC05 | .783 | .017 | -.039 | -.016 |
| SC06 | .659 | .041 | .117 | -.048 |
| SC07 | .731 | .041 | .029 | -.052 |
| SC08 | .770 | -.069 | .021 | .028 |
| SC09 | .795 | .045 | .034 | .013 |
| SC10 | .768 | .039 | .087 | .080 |
| SC11 | .811 | .038 | .015 | .082 |
| SC12 | .807 | -.006 | .016 | .027 |
| EC1 | .008 | -.011 | .447 | -.157 |
| EC2 | -.004 | -.008 | .760 | -.091 |
| EC3 | .138 | .012 | .700 | .136 |
| EC4 | .012 | -.006 | .850 | -.045 |
| EC5 | .055 | -.028 | .751 | .120 |

| | | | | |
|------------|-------|------|-------------|-------|
| EC6 | -.135 | .003 | .877 | .000 |
| EC7 | -.058 | .008 | .653 | -.057 |
| EC8 | -.012 | .020 | .745 | -.047 |

Table 21: third attempt of the EFA

4.4.3 Confirmatory Factor Analysis (CFA):

There are four reasons for conducting Confirmatory Factor Analysis (CFA): psychometric evaluation of measures, construct validation, testing method effects and testing measurement invariance (Harrington, 2008; p.3). The Exploratory Factor Analysis (EFA) provides the basis for conducting the Confirmatory Factor Analysis (CFA). As the third attempt of the EFA resulted in four factors, we tested each one of them separately here using the CFA method in order to evaluate and validate our constructs.

The terms used in evaluating the structural models are classified into two: absolute fit and incremental fit. "Absolute fit concerns the degree to which the co-variances implied by the fixed and free parameters specified in the model match the observed co-variances from which free parameters in the model were estimated". The other type of fit indices is the incremental fit which "concerns the degree to which the model in question is superior to an alternative model, usually one that specifies no co-variances among variables, in reproducing the observed co-variances" (Hoyle and Panter, 1995; p.165). The goodness-of-fit index (GFI) and the root mean square error of approximation (RMSEA) are of the common absolute fit indices. The comparative-fit index (CFI), on the other hand, is one of the most used incremental fit indices (AlHazmi, 2010; p.141). Table 22 presents the results of these indices.

| | GFI | CFI | RMSEA |
|---------------------------------|------------|------------|--------------|
| Nepotism | 0.806 | 0.780 | 0.229 |
| Human Interaction | 1.000 | 1.000 | 0.428 |
| Service Oriented Culture | 0.589 | 0.756 | 0.226 |
| Employee Commitment | 0.840 | 0.862 | 0.181 |
| All constructs | 0.676 | 0.778 | 0.107 |

Table 22: summary of the model goodness-fit indices

Another considerable parameter of the CFA model is the factor loading. The criteria we applied in the EFA still valid for CFA, which is should be > 0.5 (Hair et al., 2006). Figures 8 through to 12 present the models tested in the Confirmatory Factor Analysis and

show the factor loadings on their respective constructs.

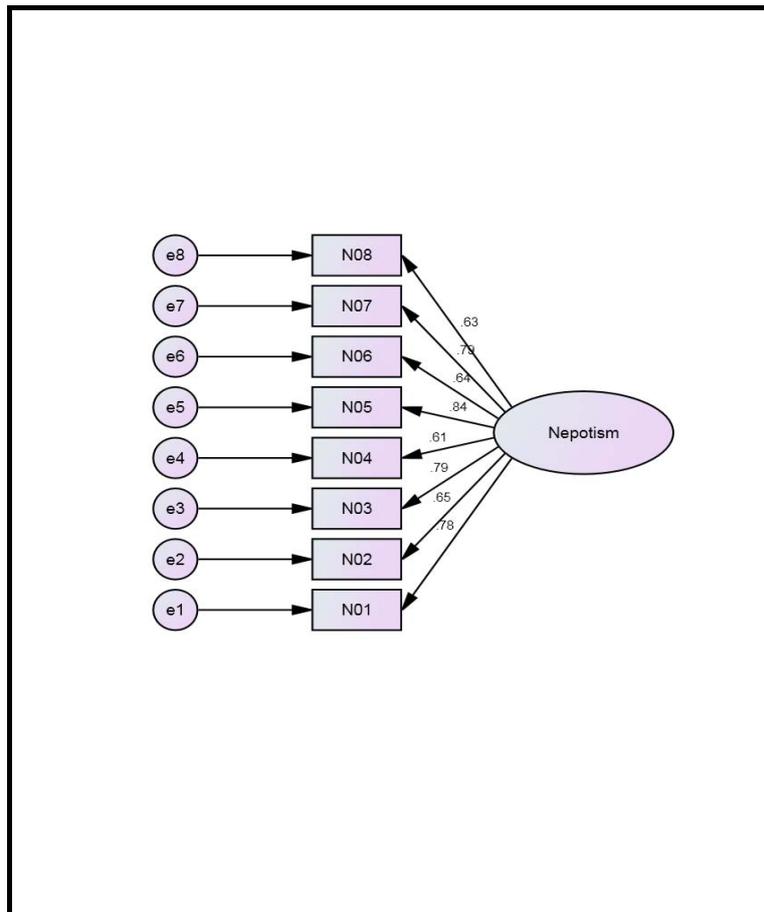


Figure 8: CFA for Nepotism construct

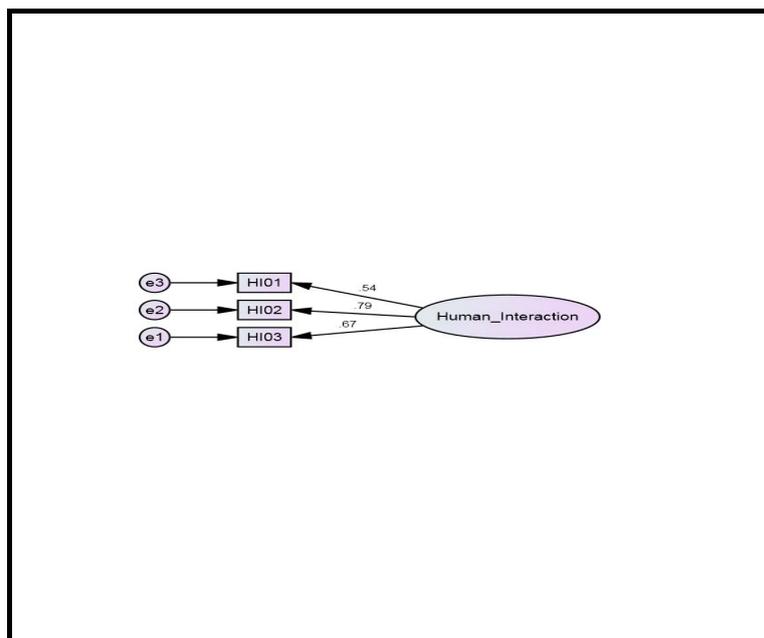


Figure 9: CFA for the fear of a Lack of Interaction with other Humans construct

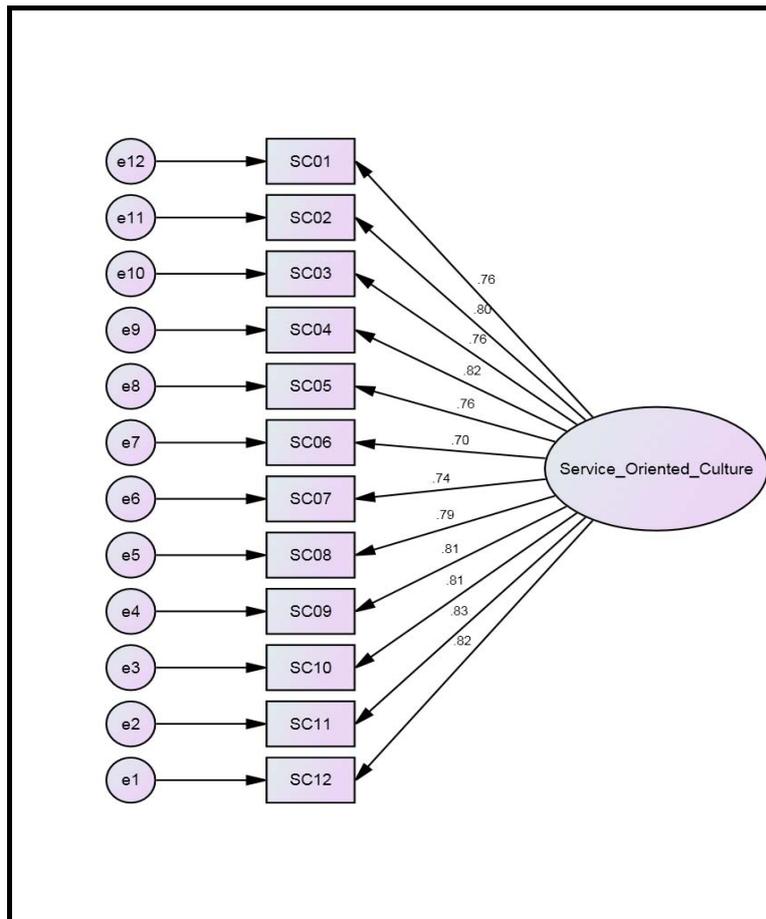


Figure 10: CFA for Service Oriented Culture construct

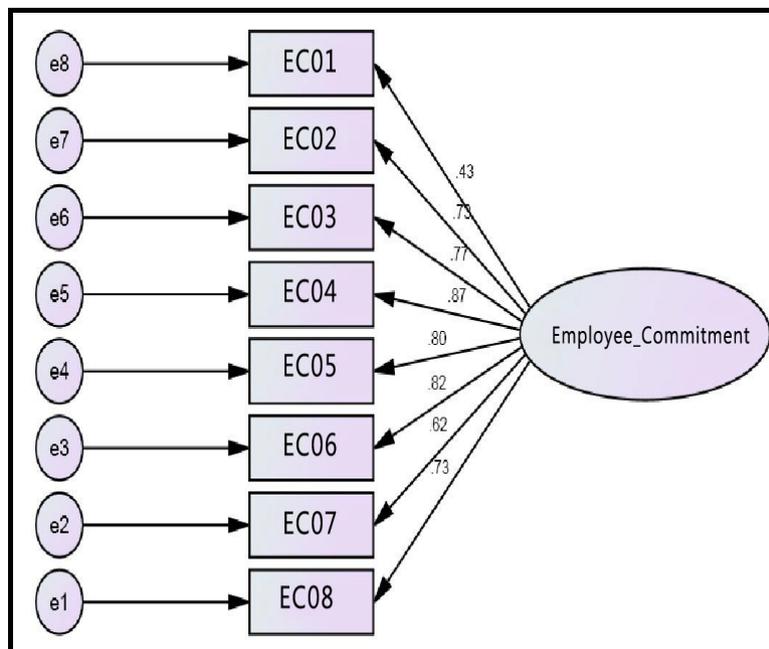


Figure 11: CFA for the Employee Commitment construct

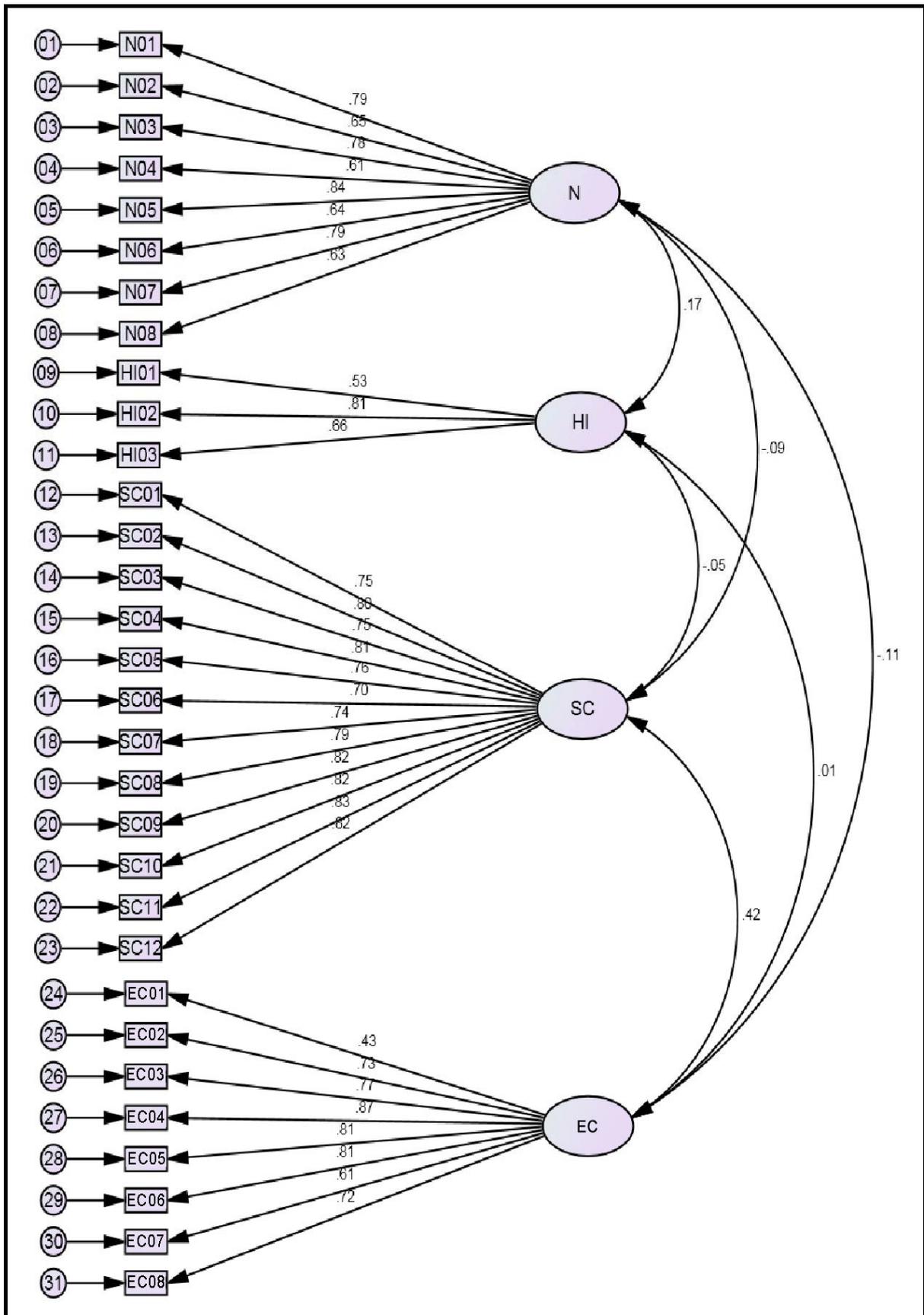


Figure 12: CFA for all constructs

The criteria of judgement on model fit are debateable. Hoyle and Panter (1995) see the ideal overall fit to be 0.90 (Hoyle and Panter, 1995; p.164). AlHazmi (2010) adopted the score of greater than 0.8 as the “acceptable” model Goodness of Fit (AlHazmi, 2010; p.143). The conclusion is there are no agreed-upon indices (Hoyle and Panter, 1995; p.162; Gerbing and Anderson, 1993; p.42). However, the general rule of thumb is that the ultimate fit is between zero and one, “where 0 reflects a complete lack of fit and 1 reflects perfect fit” Gerbing and Anderson, 1993; p.41).

To conclude, the primary objective of performing a CFA is to investigate the demonstration of the hypothesised model of obtained data. If the result revealed poor fit of the model, the solution is to undertake the possible adjustment until Goodness of Fit is accomplished. It is recommended to carry on with the model from the Exploratory Factor Analysis outcome (AlHazmi, 2010; p.137).

4.4.4 Descriptive statistics:

Three hundred and forty one Saudi employees of public and private sectors were surveyed about the cultural impact on e-service use in Saudi Arabia. 254 questionnaires were valid for the purpose of analysis. This section will contain an overview about the participants’ answers for each construct.

4.4.4.1 Nepotism:

This construct has eight questions. The mean statistics for this construct were normally distributed ranging from 3.4 up to 4.4 (Figure 13).

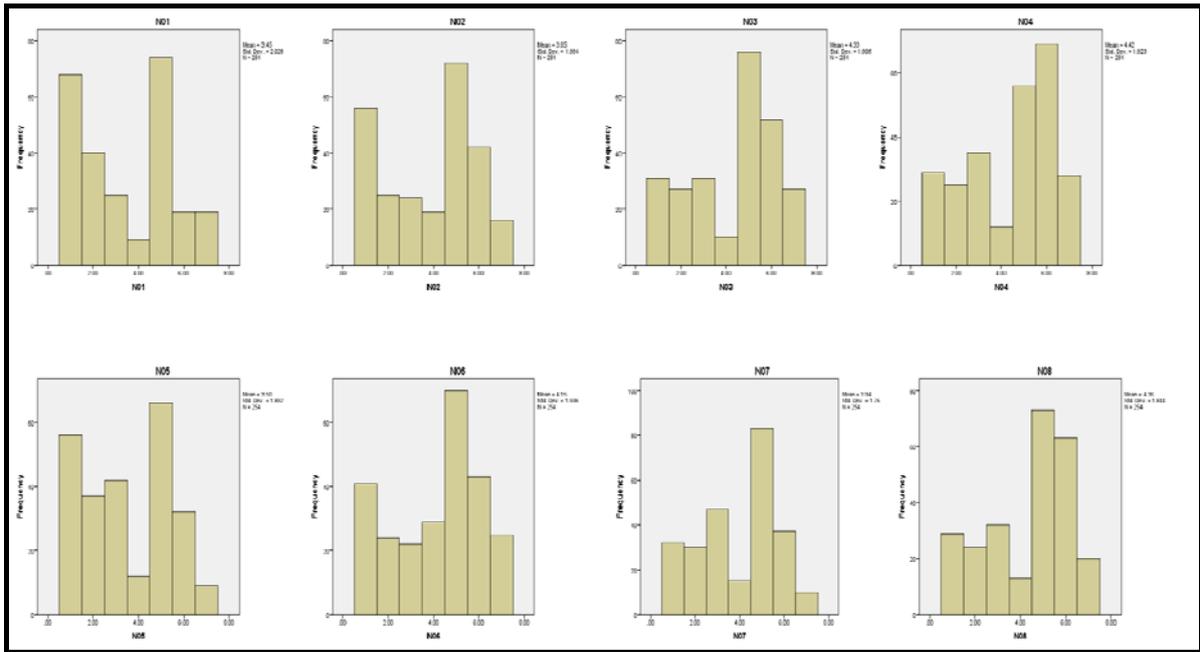


Figure 13: Answers to Nepotism items

4.4.4.2 The fear of a Lack of Interaction with other Humans:

Three items were included in this construct. 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.

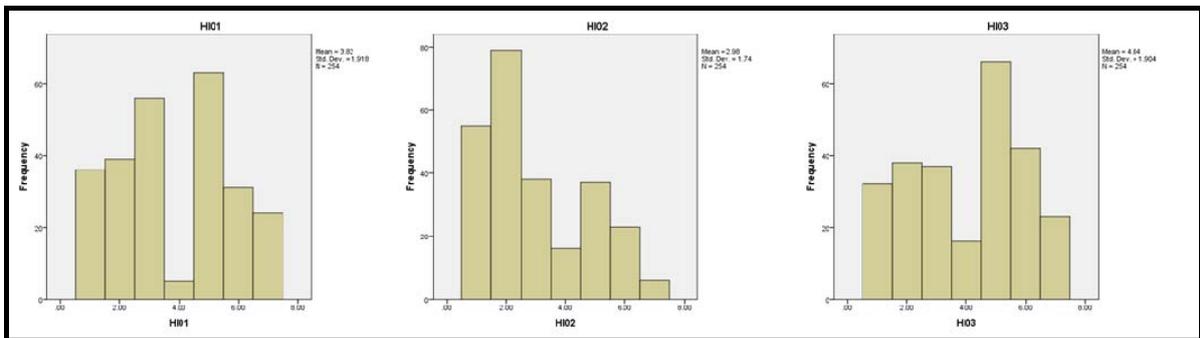


Figure 14: Answers to the fear of a lack of Interaction with other Humans items

4.4.4.3 Service Oriented Culture:

With the exception of the first three items, the twelve items representing this construct fit in with the hypotheses as shown in Figure 15.

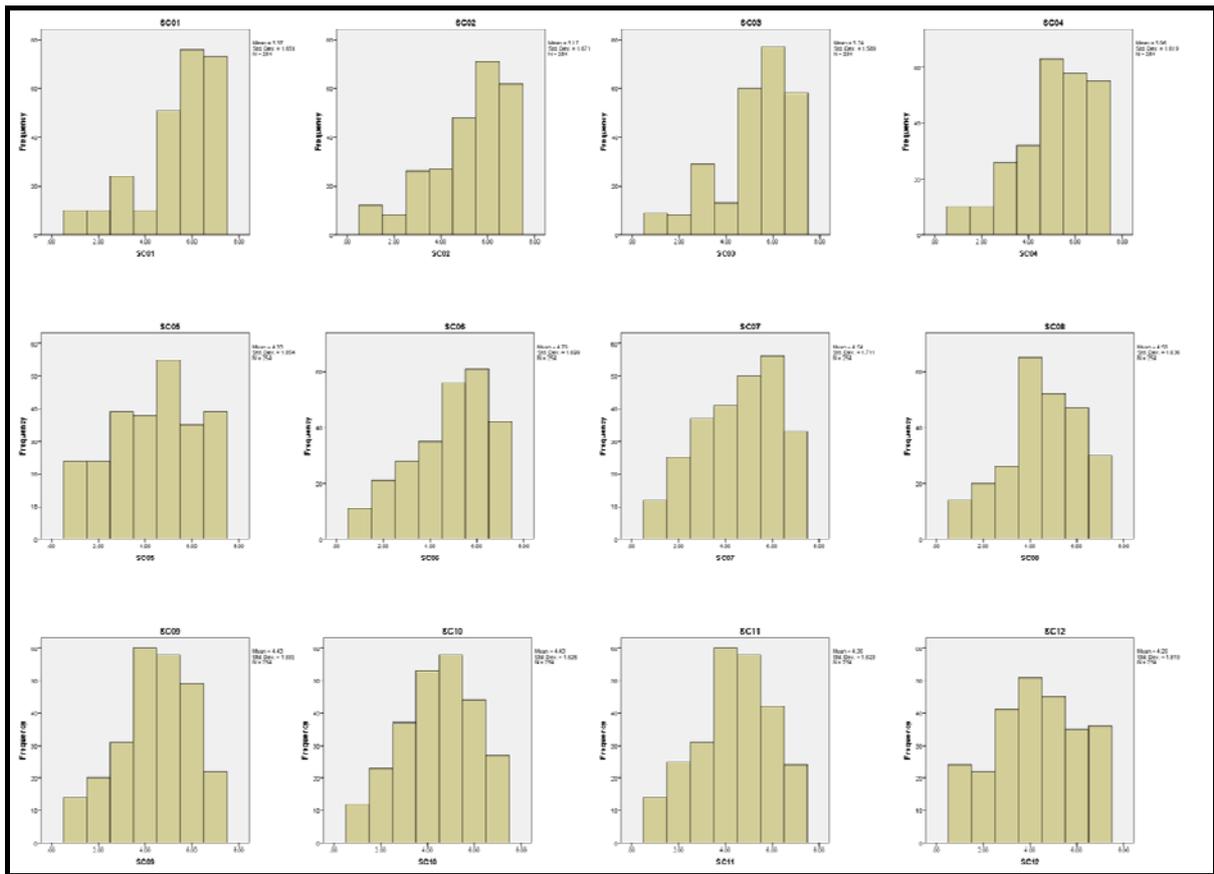


Figure 15: Answers to Service Oriented Culture items

4.4.4.4 Employee Commitment:

In contrast to the previous construct, the items of this construct scored high value of means. Figure 16 shows there was left skewness in all of this construct's items. The lowest Mean was 5.0, and the highest was 6.2.

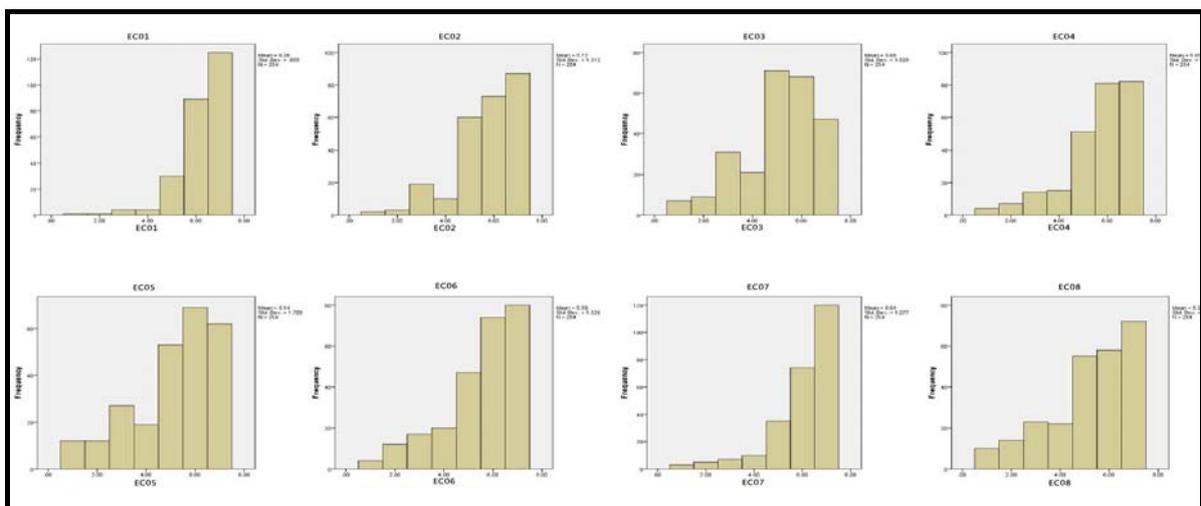


Figure 16: Answers to Employee Commitment items

4.4.4.5 Perceived Ease of Use:

Items of the first major determinant of TAM were all left skewed. The lowest score was almost 6, whereas the highest was 6.6 (Figure 17).

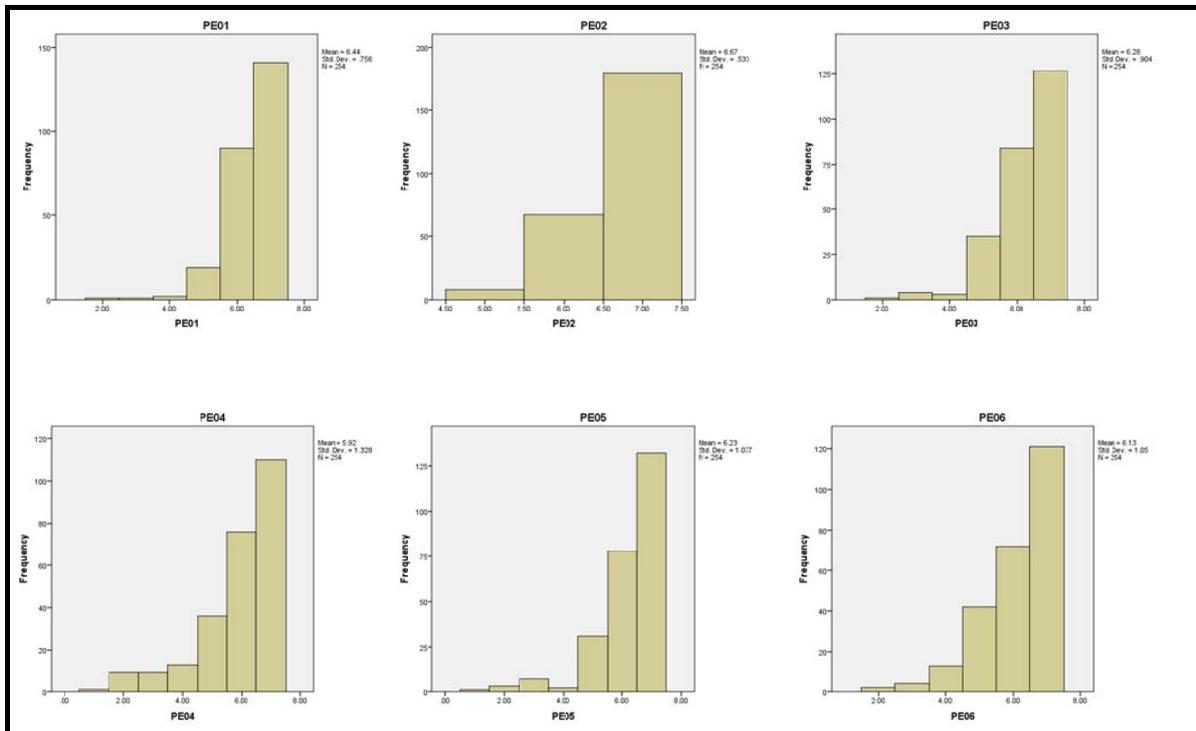


Figure 17: Answers to Perceived Ease of Use items

4.4.4.6 Perceived Usefulness:

The second major determinant of TAM was similar to the first. Means scores for this construct ranged from 6.5 to 6.7 as shown in Figure 18.

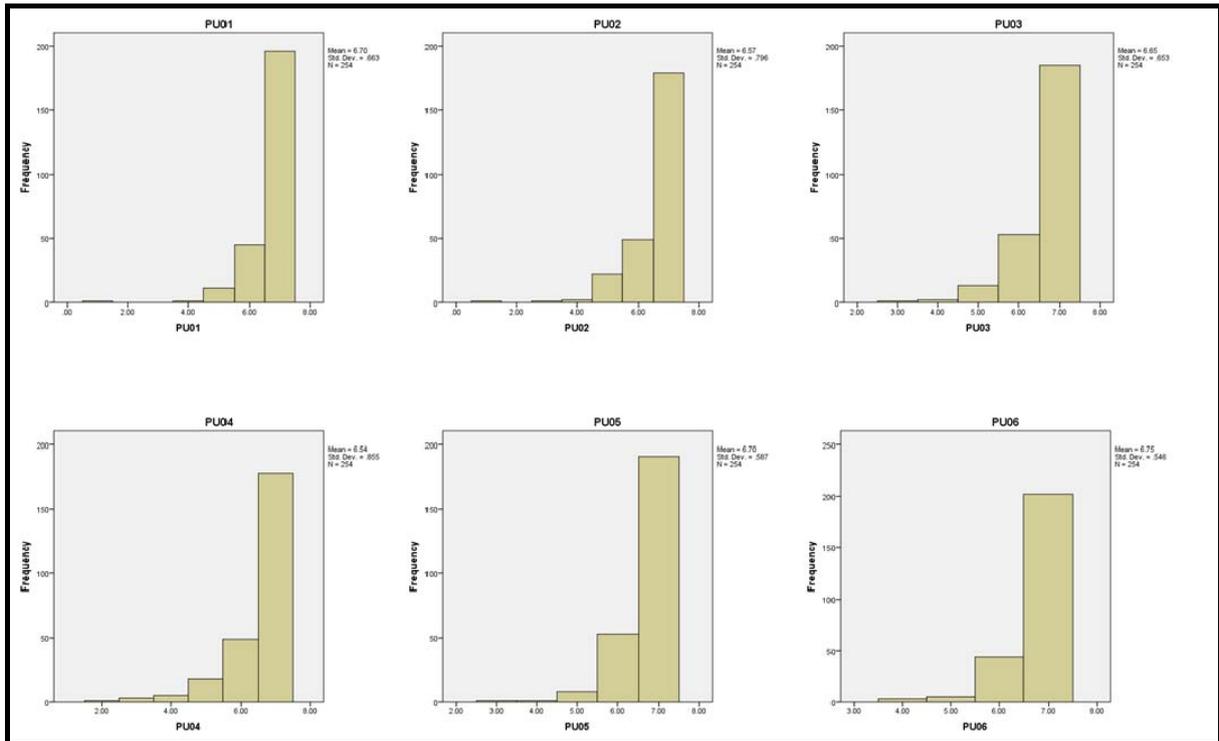


Figure 18: Answers to Perceived Usefulness items

4.4.4.7 Intention to Use:

Most participants predicted that they are very likely to use e-services on a regular basis if available at their jobs. The mean score for this construct as represented in Figure 19 is 6.7.

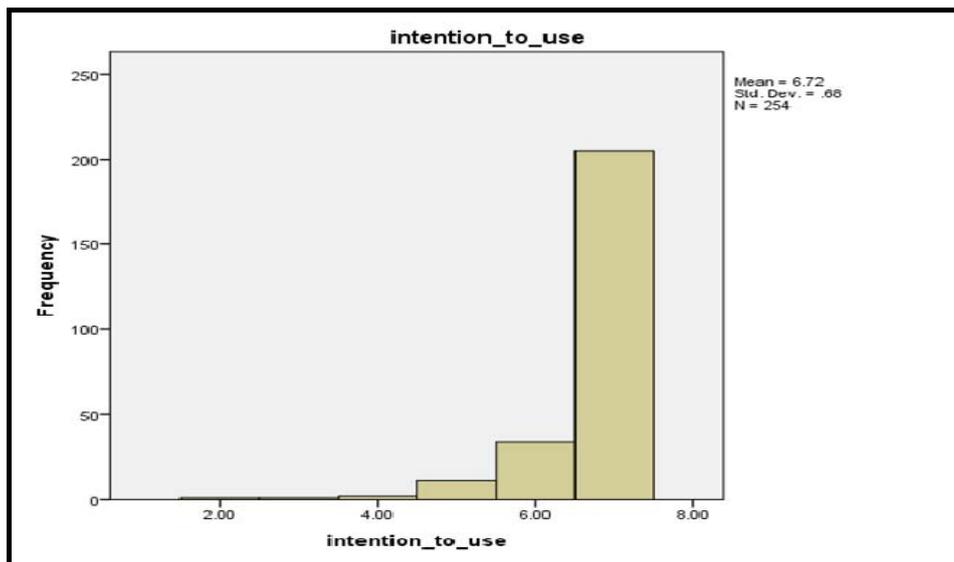


Figure 19: Answers to Intention to Use question

4.4.4.8 Actual Use:

This construct as with the previous one (Intention to Use) is represented by one question about the frequency of e-service use in the work practices. The Mean statistic of 4.6 indicates marginal left skewness in this item (Figure 20).

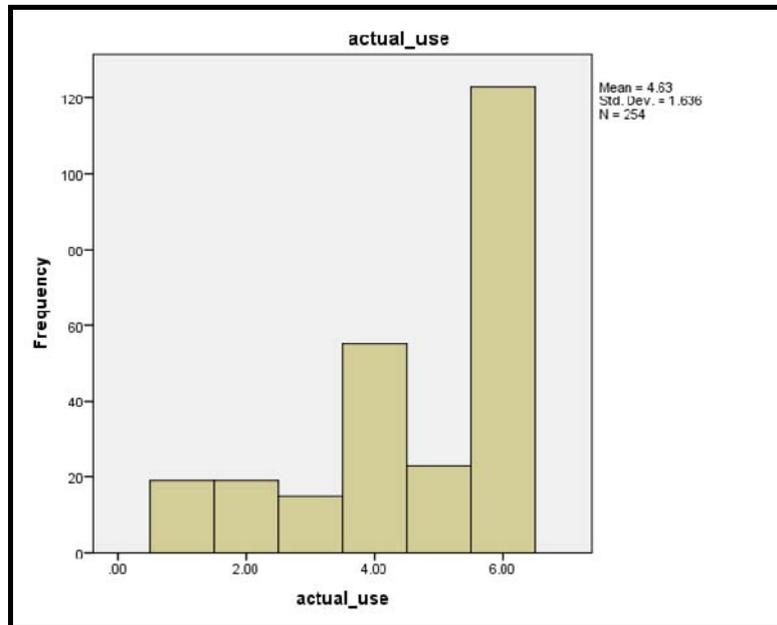


Figure 20: answers' summary to Actual Use question

In summary, the Mean statistics on the seven point scale in general ranged from 2.9 for (HI2) up to 6.7 for (PU6). Noticeably, the major two determinants of the Technology Acceptance Model (PE and PU) were left skewed starting at the bottom from 5.9 for the PE4 and ending at the top score for PU6 which is 6.7. The remaining two factors of TAM were a little bit left skewed for AU (4.6) and left skewed for IU (6.7). Similarly, the Employee Commitment (EC) was left skewed; 5.09 for EC03 to 6.25 for EC01. In comparison, the items of Nepotism (N), the lack of Interaction with other Humans (HI) and Service Oriented Culture (SC) were normally distributed ranging between 2.9 and 5.3. Table 23 shows the descriptive statistics of the research sample for each item individually.

| Descriptive Statistics | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|------------|----------------|-----------|
| | N | Minimum | Maximum | Mean | | Std. Deviation | Variance |
| | Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic | Statistic |
| N01 | 254 | 1.00 | 7.00 | 3.4488 | .12727 | 2.02829 | 4.114 |
| N02 | 254 | 1.00 | 7.00 | 3.8504 | .12514 | 1.99437 | 3.978 |
| N03 | 254 | 1.00 | 7.00 | 4.3268 | .11951 | 1.90472 | 3.628 |
| N04 | 254 | 1.00 | 7.00 | 4.4173 | .12067 | 1.92319 | 3.699 |
| N05 | 254 | 1.00 | 7.00 | 3.5000 | .11870 | 1.89184 | 3.579 |
| N06 | 254 | 1.00 | 7.00 | 4.1496 | .12148 | 1.93605 | 3.748 |
| N07 | 254 | 1.00 | 7.00 | 3.9370 | .10982 | 1.75020 | 3.063 |
| N08 | 254 | 1.00 | 7.00 | 4.3622 | .11573 | 1.84442 | 3.402 |
| HI1 | 254 | 1.00 | 7.00 | 3.8228 | .12037 | 1.91832 | 3.680 |
| HI2 | 254 | 1.00 | 7.00 | 2.9764 | .10917 | 1.73986 | 3.027 |
| HI3 | 254 | 1.00 | 7.00 | 4.0394 | .11950 | 1.90444 | 3.627 |
| SC01 | 254 | 1.00 | 7.00 | 5.3701 | .10356 | 1.65050 | 2.724 |
| SC02 | 254 | 1.00 | 7.00 | 5.1732 | .10484 | 1.67093 | 2.792 |
| SC03 | 254 | 1.00 | 7.00 | 5.2441 | .09971 | 1.58908 | 2.525 |
| SC04 | 254 | 1.00 | 7.00 | 5.0551 | .10159 | 1.61909 | 2.621 |
| SC05 | 254 | 1.00 | 7.00 | 4.3268 | .11635 | 1.85425 | 3.438 |
| SC06 | 254 | 1.00 | 7.00 | 4.7913 | .10658 | 1.69857 | 2.885 |
| SC07 | 254 | 1.00 | 7.00 | 4.5433 | .10738 | 1.71142 | 2.929 |
| SC08 | 254 | 1.00 | 7.00 | 4.5039 | .10268 | 1.63641 | 2.678 |
| SC09 | 254 | 1.00 | 7.00 | 4.4291 | .09997 | 1.59325 | 2.538 |
| SC10 | 254 | 1.00 | 7.00 | 4.4252 | .10196 | 1.62500 | 2.641 |
| SC11 | 254 | 1.00 | 7.00 | 4.3583 | .10183 | 1.62295 | 2.634 |
| SC12 | 254 | 1.00 | 7.00 | 4.2598 | .11412 | 1.81871 | 3.308 |
| EC01 | 254 | 1.00 | 7.00 | 6.2598 | .05994 | .95522 | .912 |
| EC02 | 254 | 1.00 | 7.00 | 5.7165 | .08233 | 1.31214 | 1.722 |
| EC03 | 254 | 1.00 | 7.00 | 5.0945 | .09596 | 1.52933 | 2.339 |
| EC04 | 254 | 1.00 | 7.00 | 5.6496 | .08819 | 1.40554 | 1.976 |
| EC05 | 254 | 1.00 | 7.00 | 5.1417 | .10723 | 1.70896 | 2.921 |
| EC06 | 254 | 1.00 | 7.00 | 5.5039 | .09578 | 1.52644 | 2.330 |
| EC07 | 254 | 1.00 | 7.00 | 6.0354 | .08014 | 1.27717 | 1.631 |
| EC08 | 254 | 1.00 | 7.00 | 5.2047 | .10697 | 1.70486 | 2.907 |
| PE1 | 254 | 2.00 | 7.00 | 6.4370 | .04742 | .75572 | .571 |
| PE2 | 254 | 5.00 | 7.00 | 6.6732 | .03344 | .53301 | .284 |
| PE3 | 254 | 2.00 | 7.00 | 6.2756 | .05672 | .90390 | .817 |
| PE4 | 254 | 1.00 | 7.00 | 5.9213 | .08335 | 1.32835 | 1.765 |
| PE5 | 254 | 1.00 | 7.00 | 6.2323 | .06756 | 1.07669 | 1.159 |
| PE6 | 254 | 2.00 | 7.00 | 6.1299 | .06586 | 1.04959 | 1.102 |
| PU1 | 254 | 1.00 | 7.00 | 6.7008 | .04161 | .66315 | .440 |
| PU2 | 254 | 1.00 | 7.00 | 6.5709 | .04993 | .79580 | .633 |
| PU3 | 254 | 3.00 | 7.00 | 6.6496 | .04096 | .65280 | .426 |
| PU4 | 254 | 2.00 | 7.00 | 6.5394 | .05367 | .85536 | .732 |
| PU5 | 254 | 3.00 | 7.00 | 6.7008 | .03685 | .58728 | .345 |
| PU6 | 254 | 4.00 | 7.00 | 6.7520 | .03425 | .54582 | .298 |
| IU | 254 | 2.00 | 7.00 | 6.7205 | .04270 | .68048 | .463 |
| AU | 254 | 1.00 | 6.00 | 4.6260 | .10268 | 1.63638 | 2.678 |
| Valid N | 254 | | | | | | |

Table 23: Descriptive statistics

4.4.5 Hypothetical statistical model:

The software used to construct the statistical model, which underpinned the hypothetical research model was Smart PLS path analysis (Version 2). The aim was to test the impact of the Saudi cultural values represented in: Nepotism (N), the fear of a Lack of Interaction with other Humans (HI), Service Oriented Culture (SC), and Employee Commitment (EC) along the line with the two major determinants of TAM: Perceived Usefulness (PU) and Perceived Ease of Use (PE) on the Intention to Use (IU) and Actual Use (AU). More specifically, the results of the PLS path analysis were used to test the hypotheses and the predicted outcomes listed in Table 24.

| Hypothesis | | Predicted outcome |
|------------|---|--|
| H1 | Nepotism is a negative (-) predictor of Intention to Use | The likelihood of intending to use e-services will decrease with respect to an increase in the levels of nepotism |
| H2 | The fear of a Lack of Interaction with other Humans is a negative (-) predictor of Intention to Use | The likelihood of intending to use e-services will decrease with respect to an increase in the levels of agreement that lack of interaction with other humans is a problem |
| H3 | Service Oriented Culture is a positive (+) predictor of Intention to Use | The likelihood of intending to use e-services will increase with respect to an increase in the levels of agreement with the characteristics of a service oriented culture |
| H4 | Employee Commitment is a positive (+) predictors of Intention to Use | The likelihood of intending to use e-services will increase with respect to an increase in the levels of commitment |
| H5 | Perceived Usefulness is a positive (+) predictor of Intention to Use | The likelihood of intending to use e-services will increase with respect to the perceived usefulness of the services |
| H6 | Perceived Ease of Use is a positive (+) predictor of Intention to Use | The likelihood of intending to use e-services will increase with respect to the perceived ease of use of the services |
| H7 | Intention to Use is a positive (+) predictor of Actual Use | The likelihood of intending to use e-services will increase with respect to an increase in the likelihood of actually using the services. |

Table 24: Hypotheses and predicted outcomes

If the latent variables were not reliably measured, then the results of the PLS path analysis might be compromised. Consequently, the internal consistency reliability of the latent variables was checked by computing Cronbach's *alpha* for each specified group of indicator variables. The estimation of Cronbach's *alpha* using the "Reliability Analysis" procedure in SPSS assumed that the latent variable consisted of at least three item scores, which measured a one-dimensional concept in one logical direction (Field, 2009). Cronbach's *alpha* can potentially range from 0 (zero reliability) to 1 (perfect reliability). The conventional minimum acceptable level of *alpha* to indicate adequate reliability is .7, whilst *alpha* > .8 indicates good reliability (Cronbach and Shavelson, 2004). All the latent variables consisting of multiple indicators in this study were

reliably measured indicated by Cronbach's *alpha* ranging from .698 to .950. Cronbach's *alpha* was not applicable for Intention to Use and Actual Use, because these variables were each measured using only one item score. The reliability of these variables is therefore unknown (Davis et al., 1989; p.992).

Arrows were drawn between the symbols in Figure 21 to represent hypothetical relationships between the variables. The arrows pointing out from a latent variable into a cluster of indicators represent reflective relationships, in which the latent variable was assumed to be the common cause and the indicator variables the effects. An arrow pointing between two latent variables represents a predictive relationship between a hypothesised cause and a hypothesised effect.

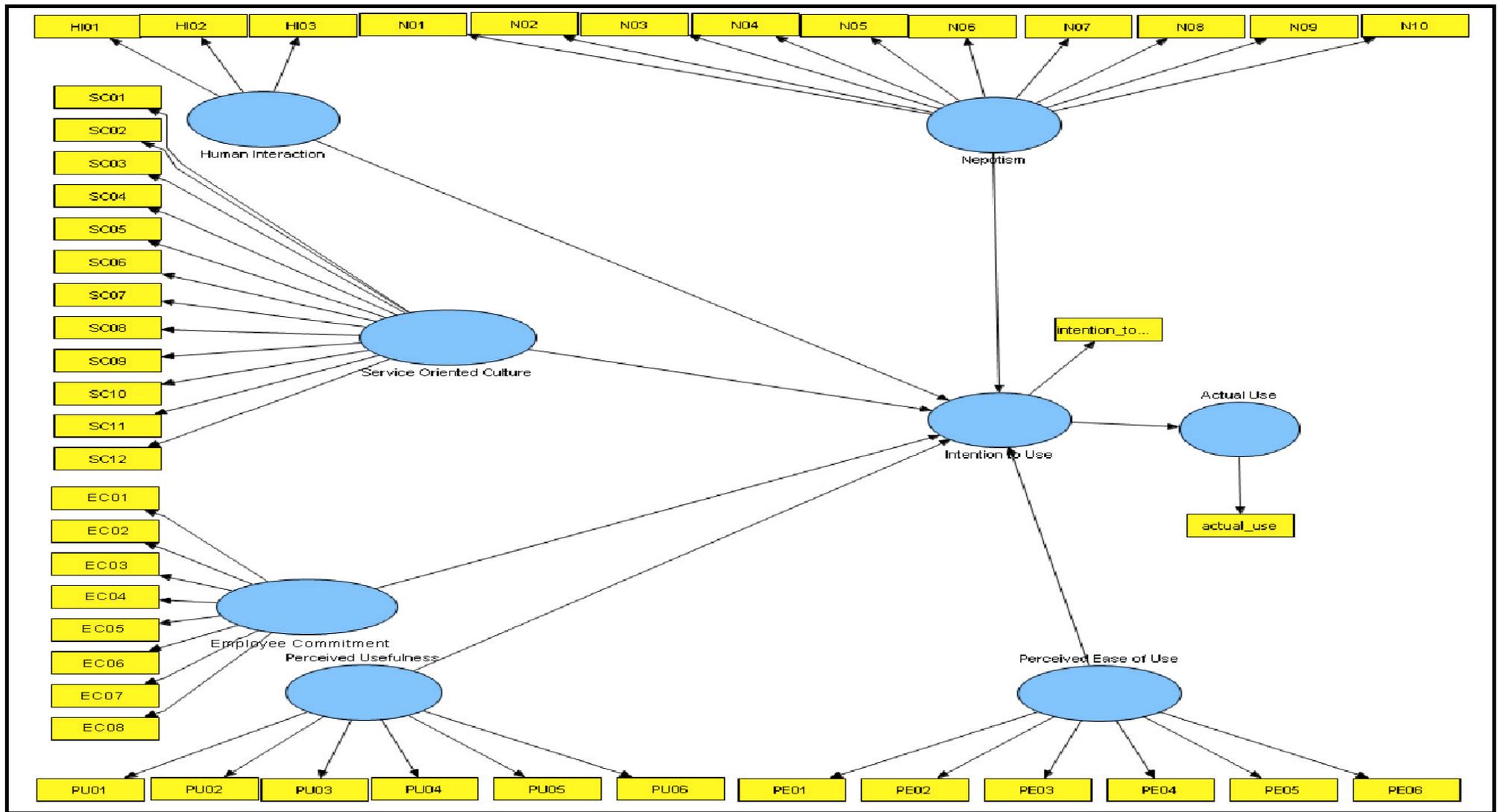


Figure 21: The hypothetical relationships between variables

After the path diagram had been constructed, the Smart-PLS algorithm was executed to compute the model parameters without intervention or manipulation (Ringle et al., 2005). Three types of parameters were computed: the factor loadings, the path coefficients and the R² values.

The factor loadings (Table 25) measured the correlations, ranging from -1 to +1, between each latent variable and its reflecting indicators. Loadings > .5 were interpreted as strong, whereas loadings < .3 were interpreted as weak. If the majority of the factor loadings for a latent variable were strong, then it was concluded that its internal consistency reliability was high, consistent with Cronbach's *alpha* greater than .7 (Cronbach and Shavelson, 2004; Gefen et al., 2003).

| | Nepotism | Human Interaction | Service Oriented Culture | Employee Commitment |
|-------------|-----------------|--------------------------|---------------------------------|----------------------------|
| N01 | 0.7991 | | | |
| N02 | 0.6676 | | | |
| N03 | 0.8009 | | | |
| N04 | 0.7144 | | | |
| N05 | 0.4545 | | | |
| N06 | 0.8474 | | | |
| N07 | 0.6551 | | | |
| N08 | 0.8222 | | | |
| N09 | 0.7314 | | | |
| N10 | 0.4556 | | | |
| HI01 | | 0.7691 | | |
| HI02 | | 0.8789 | | |
| HI03 | | 0.6906 | | |
| EC01 | | | | 0.6879 |
| EC02 | | | | 0.8012 |
| EC03 | | | | 0.6050 |
| EC04 | | | | 0.7938 |
| EC05 | | | | 0.6096 |
| EC06 | | | | 0.8251 |
| EC07 | | | | 0.7444 |
| EC08 | | | | 0.6922 |
| SC01 | | | 0.8417 | |
| SC02 | | | 0.9161 | |
| SC03 | | | 0.9244 | |
| SC04 | | | 0.8785 | |
| SC05 | | | 0.6967 | |
| SC06 | | | 0.6637 | |
| SC07 | | | 0.5586 | |
| SC08 | | | 0.6332 | |
| SC09 | | | 0.6795 | |
| SC10 | | | 0.6548 | |
| SC11 | | | 0.6797 | |
| SC12 | | | 0.6249 | |

Table 25: Factor loadings

As shown in Table 25, two factors (N05 and N10) scored below 0.5 and consequently they were excluded from the analysis. All of the remaining variables have met the criteria and loaded > .5 (Table 26).

| | Nepotism | Human Interaction | Service Oriented Culture | Employee Commitment |
|-------------|-----------------|--------------------------|---------------------------------|----------------------------|
| N01 | 0.7994 | | | |
| N02 | 0.6659 | | | |
| N03 | 0.8022 | | | |
| N04 | 0.7193 | | | |
| N06 | 0.8470 | | | |
| N07 | 0.6477 | | | |
| N08 | 0.8220 | | | |
| N09 | 0.7317 | | | |
| HI01 | | 0.7691 | | |
| HI02 | | 0.8789 | | |
| HI03 | | 0.6906 | | |
| EC01 | | | | 0.6879 |
| EC02 | | | | 0.8012 |
| EC03 | | | | 0.6050 |
| EC04 | | | | 0.7938 |
| EC05 | | | | 0.6096 |
| EC06 | | | | 0.8251 |
| EC07 | | | | 0.7444 |
| EC08 | | | | 0.6922 |
| SC01 | | | 0.8417 | |
| SC02 | | | 0.9161 | |
| SC03 | | | 0.9244 | |
| SC04 | | | 0.8785 | |
| SC05 | | | 0.6967 | |
| SC06 | | | 0.6637 | |
| SC07 | | | 0.5586 | |
| SC08 | | | 0.6332 | |
| SC09 | | | 0.6795 | |
| SC10 | | | 0.6548 | |
| SC11 | | | 0.6797 | |
| SC12 | | | 0.6249 | |

Table 26: Factor loadings after excluding N05 and N10

The path coefficients (Table 27) represented the partitioning of the variance (i.e., the partial least squares) between the latent variables. Each path coefficient measures the partial correlation between two variables after the effects of correlations with other variables had been removed or "partialled out". Each path coefficient measures the relative strength and direction (positive or negative) of the hypothesised predictive (cause and effect) relationship between each pair of latent variables. The path coefficients were standardised to take into account the different units of measurement of each variable; consequently all the path coefficients ranged from -1 to +1. Negative (-)

path coefficients provided evidence to support hypotheses H1 and H2. Positive (+) path coefficients supported hypotheses H4, H5, H6, and H7. Different from hypothesised, H3 was rejected which means Service Oriented Culture was found to be a negative (-) rather than a positive (+) predictor of Intention to Use e-services in Saudi Arabia.

| | Intention to Use | Actual Use |
|---------------------------------|-------------------------|-------------------|
| Nepotism | -0.1173 | 0.0000 |
| Human Interaction | -0.1842 | 0.0000 |
| Service Oriented Culture | -0.0086 | 0.0000 |
| Employee Commitment | 0.1305 | 0.0000 |
| Perceived Ease of Use | 0.2369 | 0.0000 |
| Perceived Usefulness | 0.0501 | 0.0000 |
| Intention to Use | 0.0000 | 0.2713 |

Table 27: Path coefficients

PLS path analysis is not a null hypothesis significance test and therefore Smart-PLS does not determine the probabilities (p values) that the path coefficients were generated by random chance. The larger the value of the path coefficient, then stronger the relationship between the variables. The relative sizes of the path coefficients measure the relative importance of the different latent variables used to predict Intention to Use and Actual Use. The following subjective interpretation of the relative strengths of the path coefficients was employed: very weak $\leq .15$, weak = .16 to .29; moderate =.3 to .49; and strong $\geq .5$.

The R^2 (Table 28) is an estimate of the proportion of the variance in the latent variable explained in terms of the variance in the other latent variables with arrows leading into it. Cohen's (1992) subjective criteria for the interpretation of the effect sizes in multiple partial correlation analysis given by $f^2 = R^2/(1-R^2)$ were used to interpret the R^2 values, (i.e., small = .02, small; medium = .15, and large = .35).

| | |
|-------------------------|------|
| Intention to Use | .200 |
| Actual Use | .074 |

Table 28: R^2 values

4.4.6 Results:

The parameters of the model to predict the Intention to Use and the Actual Use of e-services based on the responses of 254 participants are presented in tables 24, 25, and 26. The factor loadings of the multiple reflective indicators on their corresponding latent

variables were between .558 and .924. Because all of the loadings were strong (i.e., >.5) and none were very weak (i.e., <.3) it is inferred that Nepotism (N), the fear of a Lack of Interaction with other Humans (HI), Service Oriented Culture (SC), and Employee Commitment (EC) 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 only partly consistent with hypothesis H1: Nepotism is a negative (-) predictor of Intention to Use. There was a very weak negative relationship between Nepotism and Intention to Use indicated by a path coefficient of -.117. Similarly, H2 were partly consistent too: The fear of a Lack of Interaction with other Humans is a negative (-) predictor of Intention to Use indicated by a weak negative path coefficient of -0.184.

Hypothesis three was Service Oriented Culture is a positive (+) predictor of Intention to Use. However, the results rejected this hypothesis by indicating a very weak negative path coefficient of -0.008. In comparison, H4 was supported. Employee Commitment is a positive (+) predictor of Intention to Use indicated by weak path coefficient of 0.130.

Different from TAM's studies pattern, Perceived Usefulness was found to have weaker effect on Intention to Use than Perceived Ease of Use. The results were only partly consistent with hypothesis H5: Perceived Usefulness is a positive (+) predictor of Intention to Use. There was a very weak positive relationship between Perceived Usefulness and Intention to Use indicated by a path coefficient of 0.050. The most important predictor of Intention to Use, indicated by a weak path coefficient of .236, was Perceived Ease of Use (H6). Finally, a relatively weak relationship between Intention to Use and Actual Use was indicated by a path coefficient of .271 (H7).

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.

4.5 Chapter summary and conclusion:

4.5.1 Reliability of the Model:

The PLS model used in this study was relatively well specified in terms of reliability. The Cronbach's *alpha* coefficients were greater than .7. Most factor loadings were > .5, with the exception of two indicators for Nepotism which were excluded from the analysis.

4.5.2 Practical and Theoretical Significance of the Model:

The R² value of .200 indicated that 20% of the variance in Intention to Use was explained reflecting a medium to large effect size with correspondingly substantive practical and theoretical significance. While the R² value of .074 indicated that 7.4% of the variance in Actual use was explained too reflecting relatively small effect size, and therefore our research model exhibited somewhat limited practical and theoretical significance.

4.5.3 Testing of Hypotheses:

The relative consistency of the hypotheses with respect to the results of the PLS path analysis is summarised in Table 29.

| Hypothesis | | Results |
|------------|---|--------------|
| H1 | Nepotism is a negative (-) predictor of Intention to Use | Weak support |
| H2 | The fear of a Lack of Interaction with other Humans is a negative (-) predictor of Intention to Use | Weak support |
| H3 | Service Oriented Culture is a positive (+) predictor of Intention to Use | Rejected |
| H4 | Employee Commitment is a positive (+) predictors of Intention to Use | Weak support |
| H5 | Perceived Usefulness is a positive (+) predictor of Intention to Use | Weak support |
| H6 | Perceived Ease of Use is a positive (+) predictor of Intention to Use | Supported |
| H7 | Intention to Use is a positive (+) predictor of Actual Use | Supported |

Table 29: Consistency of the hypotheses with the results of PLS path analysis

4.5.4 Conclusion:

This study identified four Saudi Arabian cultural values impact on e-service use within public and private sector employees in Saudi Arabia. Of these four, nepotism and the fear of a lack of interaction with other humans were found negatively effect the intention of to use e-services. In contrast, employee commitment was found to have positive effect. The fourth Saudi Arabian cultural value assumed to have positive effect, however the findings of our study revealed negative effect.

Chapter 5: Discussion

5.1 Chapter Introduction:

The previous chapters have extensively explained the process of building this thesis and examined each one of them separately. This chapter will discuss the findings, their connections to the existing literature, the significance and implications of the findings, and conclude with describing our cultural framework.

5.2 Major findings:

Considering a specific culture would help the researcher to measure the strength of particular cultural values held by the study participants (Straub et al., 2002; p.20). There was a need to pay more attention to the cultural studies in specific context, especially with the developing countries context like this study did with focus on Saudi Arabia, as strategies and experiences from developed countries may not be necessarily appropriate to developing countries (Chen et al., 2007; p.49; Voros and Choudrie, 2011).

This study went through three phases, two qualitative and one quantitative. The major finding was through the second qualitative study by identifying four values of Saudi culture that needed to be investigated further in a wider population. Thus the third stage of the study was a quantitative study. The research question was: to what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? The answers are stated and discussed below. This section will go through these four values individually.

5.2.1 Nepotism:

Nepotism is defined by the Cambridge online dictionary (dictionary.cambridge.org) as “using your power or influence to get good jobs or unfair advantages for members of your own family”. It is also defined as “the employment of relatives in the same organisation” (Ford and McLaughlin, 1986; p.78). Unlike other studies who supported this definition of nepotism (e.g. Laker and Williams, 2003; p.191) and in order to cover our scope, the definition was extended to include members of your region in addition to your family.

Differently from Fershtman et al. (2002), this study has clearly identified and limited the term nepotism only “in favour” of relatives or people from the same region. Nepotism was discussed in some studies mixed with corruption. In fact, nepotism as defined in our research context is only happening because of the relationship and not because of other factor associated like a bribe (Dwivedi, 1967; p.245).

Most studies confirmed that nepotism has a negative impact on work practices (Hayajenh, Dwairi, and Udeh, 1994; p.71; Laker and Williams, 2003; p.201; Arasli, Bavik, and Ekiz, 2006; p.295; Arasli and Tumer, 2008; p.1237). The more the society has different ethnical groups the more the negative impact of nepotism confronts (Vanhanen, 1999; p.64). In Saudi Arabia, nepotism is “*negatively affecting e-service*” use as indicated by one of the focus groups participants.

Consistent with the literature, this study results confirmed the negative effects of tribal system, as one of the derivers for nepotism, on business environments in Saudi Arabia (Al-Shehry et al., 2006; Dwivedi, 1967; p.248; Straub et al., 2002; p.15). Individuals in collective societies secure themselves through the “attachment and commitment” to their groups as this kind of attachment is enough to cope with life difficulties (Kabasakal and Bodur, 2002; p.48). Some other individuals however do not believe in such attachment but find themselves enforced to behave accordingly.

Based on such importance of relatives, leaders are expected to offer job opportunities not only for their own relatives but even for their employees’ relatives as well. This “is regarded as unethical conduct” since many of these jobs go to unqualified people consequently resulting in less business efficiency. Managers in this culture, as a consequence, concentrate on building and maintaining “personal contact”, for the purpose of nepotism, more than doing the actual business in order to “earn the trust of the parties” (Kabasakal and Bodur, 2002; p.51). Thus, people in high positions are not overly willing to adopt and motivate the use of e-service to avoid losing such a privilege.

A contribution this study has made to the existing body of knowledge is that nepotism was examined using mixed method approach, which strengthens the outcome rather than using only one method. In other words, results of the qualitative phase showed there is an impact of nepotism on e-service use in Saudi Arabia. This alone could be

considered a contribution as no previous study showed the same. However, relying on only one method could result in a weak contribution and attract more negative criticism. Therefore the need to investigate nepotism further appeared essential and thus the quantitative phase of our study. In brief, the qualitative phase has identified the impact of nepotism, while the quantitative phase has widened our understanding of the impact of this new identified cultural value and how can we measure it.

To conclude, as Nepotism is a vague and sensitive matter in Saudi culture, this study raised this issue clearly and provided a measurement scale for it with focus on the research context instead of relying on the existing models that do not consider some cultural differences. What distinguishes our study is that it has been applied in the Information Systems field that, lacks the study of nepotism and its impact on the implementation and use of different IS.

5.2.2 The fear of a lack of Interaction with other Humans:

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 (Al-Shehry et al., 2006). 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 qualitative results of our study indicated 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. As none in the literature discussed this cultural value exactly as in our description, the qualitative phase has helped us to better understand its components and causes. Moreover, the quantitative phase has embodied this construct and further explained its negative impact on e-service use in Saudi Arabia.

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.

5.2.3 Service Oriented Culture:

In the study context Saudi organisations were identified to have a lack of service-

oriented culture. Simply put, the customer is the last thing we think about. Furthermore, most public sector employees see their job as the financial source to cope with their lives and not as a way to contribute to the society thus why they do not care about serving customers. To explain this, Expert participant of the focus groups said that government could be responsible for the latter reason since it appears to the citizens that one of its *"obligations is to recruit 70% of its people"*. Equally important, the lack of strategic goals of some organisations enhanced this issue. One participant said *"that we are operational culture; we come to work without knowing what are the goals that need to be achieved and strategies need to be followed, so today is exactly as yesterday and tomorrow will be the same"*.

Delone and McLean (2003) recommended to add "service quality" as a significant dimension of Information Systems success particularly in the e-commerce environment where customer service is vital (Delone and McLean, 2003; p.27). This study has attempted to prove the significance of service quality by placing it as a major determinant of e-service use in Saudi Arabia. Surprisingly, this study rejected the hypothesis: Service-oriented culture is a positive predictor of intention to use e-services in Saudi Arabia. It identified the presence of service-oriented culture in the Saudi organisations as a negative predictor of intention to use e-service. Sufficient efforts were made to ensure the useability of our instrument. Thus, the only explanation that could be made for this result at this stage is a response bias that Arab participants popular with (Baron-Epel et al., 2010, Paulhus, 1991, and Smith, 2004).

"In some cases people may use a system in order to comply with mandates from their superior, rather than due to their own feelings and beliefs about using it" (Davis et al., 1989; p.986). If an organisation lacks such mandates the presence of such culture will disappear. This is the case in the majority of the Saudi organisations that the qualitative results of this study found. Although our hypothesis was rejected, the attempt to test it has increased our knowledge of this factor and attracted our attention, and others as well, to the need to investigate its impact whether in a same or different context.

5.2.4 Employee Commitment:

Evidence from the literature shows that most individuals prefer to work for the public

sector because of wages, job security and “other favourable working conditions associated with public employment” (Scoppa, 2009; p.185). Despite all these features, other studies show that public sector employees are less motivated than their counterparts in private sector (Buelens and Van Den Broeck, 2007; Rainey, Backoff, and Levine, 1976; Zeffane, 1994).

The issue of differences in the work environment between public and private sector in Saudi Arabia starts from the base. As indicated by one of the participants:

“Most employees within the domain of ministry of civil service, the ministry that is responsible for recruiting public sector employees, do not have the sufficient qualification to deal with technology, while their counterpart in the private sector does. Hence few public sector organisations implement e-services depending on their human resources”. “There are also governance problems; it is hard for the staff and not the system to accept emails or online forms as evidence after the era of certified paper documents”.

In addition, the Saudi public sector has fundamental issues that need to be addressed. The use of e-service is not a magical tool to solve these problems. “The problem is that we use this technology to overcome our problems in reality especially in public sector where the organisations do not do their work effectively in traditional ways” (Al-Shehry et al., 2006). Although there are some advanced public organisations in e-service use due to the high cultural environment within the organisation. The common stereotype work style for public sector organisations is “operational, or in other words, has a daily routine” which make the organisations environment “frustrated” and as a result intelligent employees have no interest in working for them. One reason behind this is stated by a participant:

“We have a problem in Saudi Arabia as employees or graduates; when seeking a job we look for the general commissions and organisations that have a better allowance, reputation and culture environment. We have discrimination. We classified the organisations into different groups according to the financial features, they give to their staff and most of the public sector organisations come in the third or fourth place which means you have no value if you have been hired in such an

organisation”.

Regardless of the differences mentioned between public and private sector employees, this study results confirmed that employees with high level of commitment are eager to adopt new technologies, such as e-services in our context, that positively contribute toward their organisations.

In brief, the results showed that the Employee Commitment does have an impact on the Intention to Use e-service. A prime contribution is the use of commitment indicators as a determinant of technology acceptance and not for measuring other managerial matter, such as the job satisfaction, as it has been used in the literature. Results of the focus groups we undertaken indicated the relationship between the Saudi employees' commitment and the use of e-service which led us to quantitatively test this new defined relationship. The quantitative results showed that Employee Commitment has a positive impact on the intention to use e-service in Saudi Arabia. Last but not least, another finding from the literature is if there is nepotism, there will be a lack of commitment (Laker and Williams, 2003; p.200). Yet, this is not in the scope of our study as we interested in testing the direct impact of those cultural values (and not the possible casual relationships between them) on the use of e-services.

5.3 The cultural framework:

Our research model was built based on the results of the second qualitative phase, which indicated the need to investigate the impact of Saudi culture represented in four values (nepotism, the fear of a lack of interaction with other humans, service oriented culture, and employee commitment) on e-service use in Saudi Arabia. Therefore, a quantitative questionnaire was conducted to test the impact of these four values. Three (H1, H2, and H4) out of the proposed four Saudi cultural values found to have obvious effects on e-service use, whereas unexpectedly the fourth (H3) had opposite of the assumed effect. Despite the latter, this framework of cultural values (Figure 22) provides critical information for system designers in order to enhance and encourage the use of their products as will be illustrated in the following paragraphs.

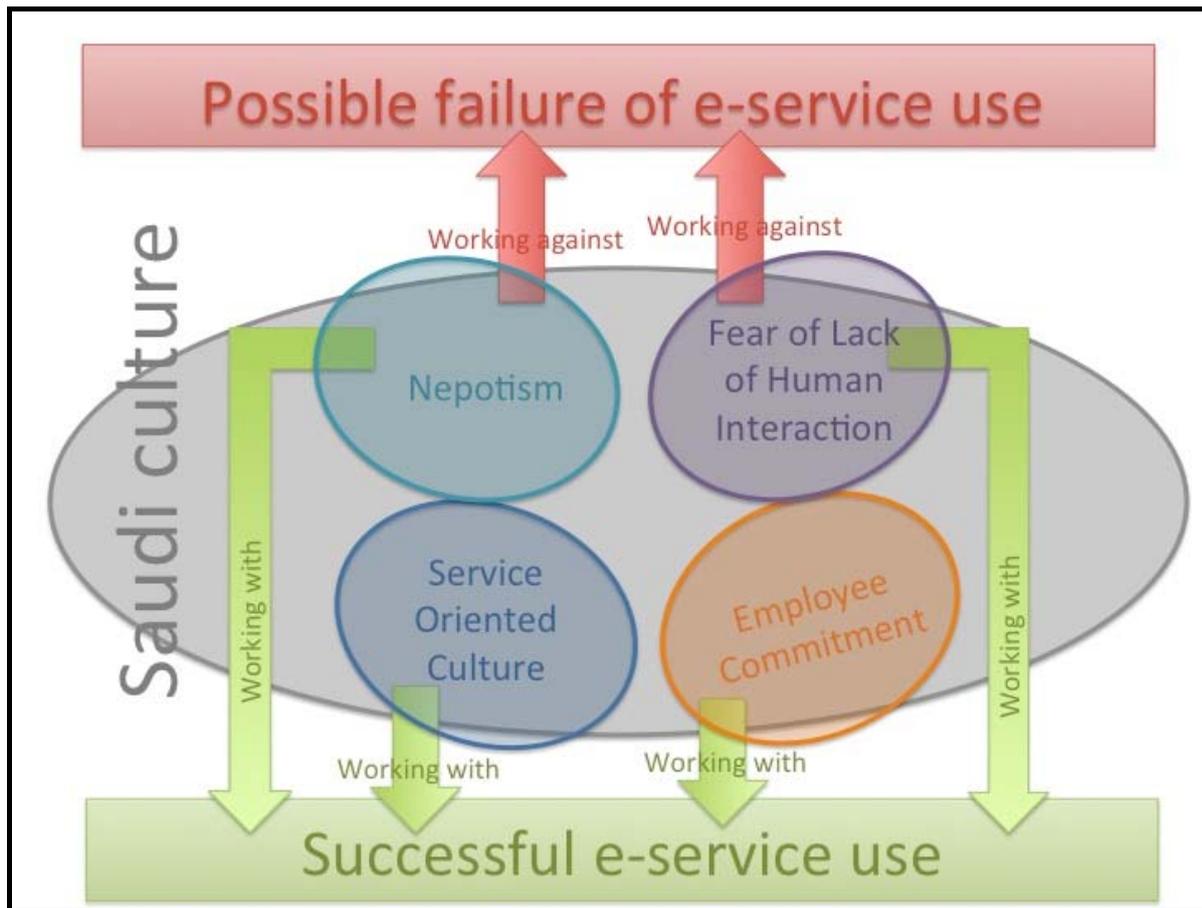


Figure 22: The cultural framework

First, nepotism should not be only dealt against, but rather with. As a way to introduce a new system and enhance its use in a Saudi organisation, a system designer could consider giving limited privileges to the leader of that organisation. In such case, the leader will consequently allow the new system to be implemented and push his employees to use it as well. Since the organisation's leader has a key role in the implementation process, we think those privileges will effectively work. On the other hand, working only against nepotism may result in system usage but in longer time with heaps of obstacles arise by the leaders or those taking advantage of nepotism.

Second, as discussed before, Saudi employees are afraid of system inflexibility and, hence, do not want to use e-services. A system designer could add to the privileges given to an organisation leader, mentioned earlier in discussing nepotism, some privileges that can exempt some cases as they driven by purely humanity causes. Doing so will help to overcome two obstacles (nepotism and the fear of a lack of interaction with

other humans) to e-service use in Saudi Arabia in one action.

The only rejected hypothesis in our study is this related to service oriented culture. We thought that having a service oriented culture will drive Saudi employees to use e-services in order to better serve their customers, however the results relatively found the opposite. A reason could be behind this result is that our survey participants are biased or did not understand the questions of this construct properly, and there is no other reason/s can be offered since sufficient efforts were made to make the questions clear and understandable. Of these efforts, questions of this construct were obtained from another validated study. Another is, since questions were translated from English to Arabic we have adopted the method of back translation through a certified translator to assure the translation accuracy. Moreover, our survey questionnaire was piloted twice using several methods like Q-sort, Exploratory Factor Analysis, and Confirmatory Factor Analysis. The presence of service oriented culture is beyond the system designers responsibilities since it is related to the operators in the first place and not the system itself. So in any way this result should worry human resources developer more than system designers.

Fourth component of our framework is the employee commitment. Although we have not considered comparing public and private sector organisations which may result in interesting findings, we still can see the impact of commitment on e-services use in Saudi Arabia. Committed employees (e.g. those who showed willingness to provide abnormal activities to achieve the organisation objectives) found to play essential role in using and spreading the importance of using e-services for better business results and customer satisfaction. This cultural value needs cooperation between personnel and HR specialists and e-services implementers to utilize the commitment motivators that could positively contribute to the implementation and enhancement of e-service usage.

To conclude, giving attention to such tiny details often contribute to the success of the designed system. Implementers, most importantly between the involved parties in this process, with their various roles are expected to show enthusiasm and translate it into actions in order to overcome the cultural obstacles to e-service use. This framework of

Saudi culture values provides solid base that can be the starting point of successful e-services use. Moreover, it can be customised to fit different business environements within the same culture or even similar.

Chapter 6: Conclusion

6.1 Chapter introduction:

This chapter will restate the answers to the research question, summarise the contributions to the body of knowledge of culture and technology acceptance studies, present the practical implications for policy makers in Saudi Arabia, discuss the limitations and recommendations, provide direction for future research, and then conclude the thesis.

6.2 Answers to the research question:

A research question was proposed at the beginning to guide the study phases, that question was: To what extent do cultural values impact on e-service use in Saudi Arabia, and if so how? To have this question satisfactorily answered we proposed the following seven hypotheses:

(H1) Nepotism is a negative predictor of intention to use e-services in Saudi Arabia. This part of the research question was weakly supported indicating that nepotism has a little negative role in predicting the intention to use e-services.

(H2) The fear of a lack of interaction with other humans is a negative predictor of intention to use e-services in Saudi Arabia. Consistent with the previous hypothesis, the research question has been answered here with yes; this Saudi cultural value has a small negative effect on predicting the intention to use.

(H3) Service oriented culture is a positive predictor of intention to use e-services in Saudi Arabia. Our assumption in this part of the research question was rejected; making the answer according to our study participants as: having service oriented culture does not play positive role in predicting the intention to use. Reasons for rejecting this hypothesis were presented in the previous chapter; Chapter 5.

(H4) Employee commitment is a positive predictors of intention to use e-services in Saudi Arabia. As the answers to H1 and H2, answers to H4 were partially supporting the positive role of commitment in predicting the intention to use e-services.

The total effects of those four hypotheses along with **H5** (Perceived usefulness is a

positive predictor of intention to use e-services) and **H6** (Perceived ease of use is a positive predictor of intention to use), which were weakly supported and supported respectively, has derive the support for **the seventh hypothesis**: intention to use is a positive predictor of actual use of e-services in Saudi Arabia. So, we can infer from the previous hypotheses that the research question has been answered at a satisfactory level as we assumed except in the third part of it (H3).

6.3 Contributions:

The main theme for this study is the impact of culture on e-service use. The following two subsections will summarise the contributions our study brought to the existing body of knowledge for these two themes.

6.3.1 Study of cultural factors impacting e-service:

Most studies deal with culture as a fixed factor, while others define it as a set of different factors. Both kinds of studies were, generally speaking, trying to generalise culture through clustering different countries or races into cultural groups. This study was specific to Saudi culture, which adds values to the cultural studies literature, and is also applicable to many other Arabic countries as well as some developing countries.

6.3.2 Technology acceptance studies:

Few previous works have investigated “the effects of cultural variables on the Technology Acceptance Model”, and most of them have used Hofstede cultural dimensions (Voros and Choudrie, 2011; McCoy et al., 2007; p.82). McCoy (2002) has studied the impact of national culture (represented by the Hofstede’s five dimensions) on TAM. Hofstede’s cultural dimensions are the most cited reference about culture within Information Systems Discipline (Al-Gahtani et al., 2007; Ali et al., 2006; p.1; Straub et al., 2002; p.18; Voros and Choudrie, 2011; Cardon and Marshall, 2008; p.104). However, it has been misused (Ali et al., 2008; p.7; Ford et al., 2003; Cardon and Marshall, 2008; p.105), and there is a doubt about its applicability as they are outdated (Voros and Choudrie, 2011). By representing Saudi culture in new set of values and testing their impact with TAM, this study provided a “better” understanding of the impact of culture on e-service use (Davis et al., 1989; p.988). Furthermore, those values

could be added as new factors to extend TAM which creates significance for this study.

6.4 Practical implications:

Policy makers in Saudi Arabia are of the most important stakeholders in e-services implementation. Our current study identified four values of Saudi culture that can negatively affect the usage of e-services. Those values require serious attention from either policy makers or e-service systems designers. The results of this study should inform both policy makers and designers that nepotism still exists although we are in the second decade of the 21st century. Thus, enough consideration should be put in place to overcome its proved negative impact. Of the possible consideration, policy makers are advised to enforce policies that help stopping the negative side of nepotism. In the meantime they should allow some practices of what could be called positive nepotism to persuade those addicted to nepotism or those who have fear of a lack of interaction with other humans as a result of implementing e-services.

The results of our second cultural value confirmed that some people (either an organisation's employee or client) are afraid of missing physical contact with other humans and relying on the virtual contact because of the new services' nature. Some employees who would love to help customers for the sake of help and not else will not be able to do so if e-services implemented as the decision is fully taken by how the business process is designed in the system. For example, if someone missed one of the requirements for a business process that the system is designed not to approve without it, then this process will not be completed and the employee have nothing to do even if he wants to help. This kind of employees are having negative attitude toward using e-services for such reason. So rising this point clearly, as our study did, should encourage system designers to consider it in designing systems for such culture. Policy makers on the other hand may think of giving some permissions for employees for such cases.

Although the quantitative results of our study did not support our assumption for the third Saudi cultural value, we still have support from the qualitative results that there is a need for the presence of service oriented culture. These results of the qualitative phase of our study along with our justification for having no support for this value in our quantitative phase inform decision makers and Human Resources developers to

enhance the presence of this kind of cultures. Spreading this culture can begin through decision makers especially in the education system by emerging the roots of this culture in the national curriculum. Human Resources specialists also have role in spreading this culture by designing training programs and workshops with the culture of serving customers as the focus. They also, or either personnel department staff, can add to the annual evaluation report a criteria that judge an employee performance according to how he behaves with customers. This culture is currently found in some of the public and private sector organisations, but what this study could imply is having this culture as the dominant in each organisation and even in the normal daily life practices.

Lastly, a practical implication of this study is toward employees' commitment. It has been supported in this study that an increase in a Saudi employee commitment result in an increase in his intention to use e-services. What could increase an employee commitment is a question that has been widely discussed in the management literature. But here we are talking about this from Information Systems field point of view. More specifically to have the new technology used as a consequence of commitment increase. Therefore, management scholars or practitioners could invent a motivation system with keeping culture in mind to improve the commitment level and in return help the use of new technologies.

6.5 Limitations and recommendations:

Although this study contributed to the cultural and technology acceptance fields, there are some limitations that need to be addressed. Following are the limitations along with recommendation to each one of them.

- Arab participants are popular with response bias (Baron-Epel et al., 2010, Paulhus, 1991, and Smith, 2004). Although sufficient efforts have been made during the questionnaire design to prevent such an issue, some of our data were not normally distributed. Researchers investigating Arab population should pay attention to this issue to ease the analysis process and avoid unreliable results.
- Our instrument assumes that everybody belongs to a tribe or region, however some do not belong to a tribe and do not care about their region. There is sensitivity in asking whether a person belongs to a tribe or not, hence why we

assumed everybody belongs to a tribe or a region. Asking the question is recommended for those who would replicate this instrument.

- As we only distributed an online questionnaire, a hard copy of the instrument is recommended to approach people in top management positions who are often over 50 and not likely to participate in an online survey.
- In addition to the challenge of beliefs' measurement (Bagozzi, 2007; p.246; Davis et al., 1989; p.983) "TAM did not hold across all cultural groups" (McCoy et al., 2007; p.87). Measuring Intention to use in TAM is "characterised as personal intentions". However, "much of human behaviour is not best characterised by an individual acting in isolation" (Bagozzi, 2007; p.247). This raises the need for more reliable beliefs' measurement.
- Focus groups revealed the main contribution for this study. Its sampling was through the convenient technique. Such a technique "was not random, and it is difficult to ascertain if there was self-selection in respondents" (McCoy et al., 2007; p.88).
- Despite the set of cultural values identified by this study, studying culture is risky. Culture is rapidly changing which means what is interesting now may result in insignificant outcomes after short time (Straub et al., 2002; p.20). Researchers working on longitudinal studies are strongly encouraged to consider this implication.
- As this study has not done this, it would be worthy to test some factors such as age, level of education and the career sector as moderators for those four cultural values.

6.6 Direction for future research:

As this research brought to the attention of cross culture and technology acceptance studies four new Saudi cultural values, it is worth to replicate and further investigate them. Replication of this study could be done within the same culture, but taking other ways of analysis like splitting the research participants according to their sector (public / private) or education level to see if there are any major differences. Replication could

be undertaken also in a different cultural context especially Arabic and Islamic cultures that share some values with the Saudi culture, results of such replication sure will be of interest to both cultures members. Further investigation could be by testing the impact of these values on a different measurement of technology acceptance rather the one proposed by Davis and tested here. This could include the use of the Unified Theory of Acceptance and Use of Technology (UTAUT), Theory of Planned Behaviour (TPB), or their extensions, or even any other models. Incorporating the possible casual relationships between the variables, like the possible effect of nepotism on employee commitment or perceived usefulness, is another direction for future research.

6.7 Thesis Conclusion:

The research began by assuming there are cultural values specific to Saudi Arabia those impacts on e-service use. Review of the literature was conducted to identify the gaps in research. The results of this review indicated this problem was investigation worthy. Thus, the research problem and objectives were stated in order to guide the journey.

Using a mixed methods approach, this study went through three phases. The first phase was qualitative individual interviews to explore the scope of the research spectrum. As we targeted the wrong interviewees, this phase resulted in almost nothing. Secondly focus groups were conducted in order to understand it in more depth. The results of the second stage revealed four cultural values that needed more investigation. Finally, an online questionnaire was implemented in order to test the newly identified values in wider population.

As the approach of this study is mixed method, results of qualitative and quantitative phases were discussed separately. Manual extraction of the keywords was implemented as a technique to analyse the qualitative data, where PLS Path Modelling used with the quantitative data.

The aim of this study was to identify the cultural values that impact on e-service use in Saudi Arabia. Differing from previous studies, the cultural values intended to be identified in this study were unique to Saudi culture. Since this study has identified four of the Saudi cultural values (Nepotism, fear of a Lack of Interaction with other Humans, Service oriented Culture, and Employee Commitment) that have not been identified in

the literature, a conclusion could be drawn that the study aim has been accomplished.

In summary, there are many organisations throughout the world that have failed to successfully implement e-service, especially in developing countries. Culture has been widely addressed as a reason behind this (Al-Shehry et al. 2006; Alawi et al. 2005; Siriluck and Mark 2005; Jones et al. 2003; Chappell and Feindt 1999; Al-Alawi and Kuzic 2007; Taylor and Murphy 2004; Kundi and Shah 2007; Deitel et al. 2001; Alwabel and Zairi 2005; Pai and Yeh 2008; Rapp et al. 2008; Aranda et al., 2005; Chadhar and Rahmati, 2004; Chappell and Feindt, 2000; Kundi and Shah, 2007; and Merritt, 2000). However, values that construct culture have not attracted the same attention. This study has identified four Saudi cultural values that negatively impact on e-service use by employees in Saudi organisations. These factors have not been previously considered and if they are in future, they will inform and assist both researchers and organisations, to provide a solid framework to use to understand this complex phenomenon in either research or business context. Although culture is rapidly changing (Straub et al., 2002; p.20), researchers can validate those four values and test their impact on different settings (e.g. other country or system). Organisations, on the other hand, 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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Appendices

Dear Sir / Madam

The Director of IT Department

I hope you are in a good health.

I am from Queensland University of Technology – Brisbane – Australia, and I am currently studying to obtain a PhD titled (Implementation impediments of e-business in the Kingdom of Saudi Arabia). Your organisation obtained the first place on (award's name and branch here), so I would like to interview you about your current e-business implementation. Based on this I hope you do not mind being personally interviewed.

I attached a brief statement about my research which began in July 2008.

If you agree to be interviewed, or even if you are considering agreeing, please respond and I will explain more about the interview process and answer any questions you may have. I will also discuss the best timing for the interview and arrange things to suit your requirements.

I would be happy to share the results of my research with you after the interviews are completed.

I really you will accept this offer and participate in this research..

Kind Regards,

Researcher's name and contact details

Appendix 1: the invitation letter for individual interviewees

Dear Sir / Madam

The Director of IT Department

Thanks you for agreeing/considering agreeing to be interviewed as part of my research for my PhD titled (Implementation impediments of e-business in the Kingdom of Saudi Arabia). For your information, for this interview:

- 60 minutes is the maximum duration.
- You will be contacted via Skype on a time you choose. Please advise me of 2 or 3 possible times you may prefer for the interview to proceed. I will email you back with a confirmed time for our interview.
- I would like to record the interview if you have no objection. In that way the interview recording will help me to avoid a longer interview time with you, caused by me taking notes.
 - I will NOT record any details of your name or company with the recording so that the recording is anonymous. No one will be able to identify your company or your name from this recording. If you refuse permission for me to record the interview, could you please allow more time for taking notes to ensure I do not miss any important information.
- If you agree to the interview being recorded, please note that the interview recording will be saved in my personal files and will not be revealed to anybody even at the University.
- The interview records will be used in research purposes only.
- I attached an agreement form for you to read and sign granting me permission to interview you and your decision on whether I can record the interview.

Once again, I would be happy to share the results of my research with you after the interviews are completed.

I am also happy to answer any further questions you may have.

Thank you again for considering/agreeing to this interview.

Kind Regards,

Researcher's name and contact details

Appendix 2: the procedure letter for individual interviewees

PARTICIPATE IN RESEARCH
Information for Prospective Participants

The following research activity has been reviewed via QUT arrangements for the conduct of research involving human participation. If you choose to participate, you will be provided with more detailed participant information, including who you can contact if you have any concerns.

Implementation impediments of e-business in the Kingdom of Saudi Arabia

Research Team Contacts here

Please contact the researcher to have any questions answered or if you require further information about the project.

What is the purpose of the research?

The purpose of this research is to identify the impediments of implementing e-business in The Kingdom of Saudi Arabia taking into account the Saudi culture.

Who is funding this research?

This research is entirely funded by my sponsor Ministry of Higher Education (MHE) in the Kingdom of Saudi Arabia. The funding body will not have access to personally identifying information about you that may be obtained during the project.

Are you looking for people like me?

The researcher is looking for (general users (customers)-Experts) for e-services in Saudi Arabia and Australia.

What will you ask me to do?

Your participation will involve answering the following questions:

1. What do you think e-services are?
2. Do you use them? If yes how often, when, why, and what for?
3. Why do you think people may not use e-services?
4. Can you think of organisations that are not using e-services, and explain why?
5. What make it easy to use e-services?
6. Do you think our culture has hindered us somehow to use e-services, if yes what sort of cultural aspects that most affect our use?

Are there any risks for me in taking part?

The researcher does not believe there are any risks for you if you choose to participate in this research.

It should be noted that if you do agree to participate, you can withdraw from participation at any time during the project without comment or penalty.

Are there any benefits for me in taking part?

It is expected that this project will not benefit you directly. However, it may benefit the e-business implementation quality.

Will I be compensated for my time?

Your participation is voluntary.

I am interested – what should I do next?

If you would like to participate in this study, please contact the researcher for details of the next step.

Main researcher contact details here

You will be provided with further information to ensure that your decision and consent to participate is fully informed.

Thank You!

QUT Approval Number: **0900000504**

Implementation impediments of e-business in the Kingdom of Saudi Arabia

RESEARCH TEAM CONTACTS HERE

Please contact the researcher to have any questions answered or if you require further information about the project.

STATEMENT OF CONSENT

By signing below, you are indicating that you:

- have read and understood the information document regarding this project
- have had any questions answered to your satisfaction
- understand that if you have any additional questions you can contact the research team
- understand that you are free to withdraw at any time, without comment or penalty
- understand that you can contact the Research Ethics Unit on [+61 7] 3138 5123 or email ethicscontact@qut.edu.au if you have concerns about the ethical conduct of the project
- understand that the project will include [audio and/or video] recording
- understand that non-identifiable data collected in this project may be used as comparative data in future projects
- agree to participate in the project

Name _____

Signature _____

Date _____

Please return this sheet to the investigator.

Queensland University of Technology

Faculty of Science and Technology

Cultural impact on e-services use in the Kingdom of
Saudi Arabia
(Survey)

Majid Saad Aldraehim

(6533647)

PhD candidate

Principal Supervisor

Prof. Sylvia L. Edwards

Associate Supervisor

Dr. Jason Watson & Dr. Taizan Chan

Purpose:

The aim of this survey is to understand and develop a frame work of cultural values that impede e-services implementation in business practices in public and private sectors in the Kingdom of Saudi Arabia. E-service defined as “Services provided electronically using (ICT) Information and Communication Technologies” (NICTP, 2005; p.88) to clients either from public or private sector. Individual employees of both sectors (public/private) in Saudi Arabia are the targeted participants for this survey.

Section (A)

This section seeks to determine the agreement level you give to tribalism in your daily work practices.

Please circle one answer for each statement in order to state the level of **AGREEMENT** to you in your work:

| | | totally disagree | | | totally agree | | | |
|---|--|------------------|---|---|---------------|---|---|---|
| 1 | customers being of my tribe gives him an advantage over others | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 | employees are rewarded according to their tribal relationship with senior management | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | I find myself enforced to help customers from my tribe | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4 | being loyal to my tribe is essential | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | managers recruit unqualified people because they are from same tribe | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section (B)

This section seeks to determine the agreement level you give to regionalism in your daily work practices.

Please circle one answer for each statement in order to state the level of **AGREEMENT** to you in your work:

| | | totally disagree | | | totally agree | | | |
|----|--|------------------|---|---|---------------|---|---|---|
| 6 | customers being of my region gives him an advantage over others | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7 | employees are rewarded according to their regional relationship with senior management | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | I find myself enforced to help customers from my region | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9 | being loyal to my region of birth is essential | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10 | managers recruit unqualified people because they are from same region | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section (C)

This section seeks to know your perceived opinion about the usefulness of e-services implementation in your job.

Please circle one answer for each statement in order to state your level of **LIKELIHOOD**:

| | | | | | | | | very unlikely | | | | | | very likely |
|----|---|---|---|---|---|---|---|------------------|--|--|--|--|--|----------------|
| 11 | Using e-services in my job would enable me to accomplish tasks more quickly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |
| 12 | Using e-services would improve my job performance | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |
| 13 | Using e-services in my job would increase my productivity | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |
| 14 | Using e-services would enhance my effectiveness on the job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |
| 15 | Using e-services would make it easier to do my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |
| 16 | I would find e-services useful in my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | |

Section (D)

This section seeks the level of agreement you give to various statements related to the lack of human interaction.

Please circle one answer for each statement in order to state your level of **AGREEMENT** that this describes your work environment:

| | | | | | | | | | totally disagree | | | | | | totally agree |
|----|---|---|---|---|---|---|---|---|---------------------|--|--|--|--|--|------------------|
| 17 | e-services are unable to cater for special cases like traditional do | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | |
| 18 | I feel threatened by the way e-services could affect our community life | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | |
| 19 | e-services isolate me from personal interaction with customer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | | | | | |

- | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 34 | our contacts with customers are coordinated between our various departments | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 35 | we share information about customers among departments | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 36 | we integrate departmental strategies with regard to customers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 37 | all of our departments contribute to creating value for customers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section (G)

This section seeks the level of agreement you give to various statements related to your sector (public or private sector).

Please circle one answer for each statement in order to state your level of **AGREEMENT** that this describes your work environment:

- | | | totally
disagree | | | totally
agree | | | |
|----|--|---------------------|---|---|------------------|---|---|---|
| 38 | I am willing to put in a great deal of effort beyond that normally expected in order to make this organisation be successful | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 39 | I talk up this organisation to my friends as a great organisation to work for | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 40 | I find that my values and this organisation's values are very similar | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 41 | I am proud to tell others that I am a part of this organisation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 42 | this organisation inspires the very best in me in the way of job performance | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 43 | I am extremely glad I choose this organisation to work for over others I was considering at the time | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 44 | I really care about the fate of this organisation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 45 | for me, this organisation is the best of all possible organisations to work for | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Please circle one answer for each statement in order to state your level of **IMPORTANCE** that this describes your work environment:

- | | | totally not
important | | | very
important | | | |
|----|--|--------------------------|---|---|-------------------|---|---|---|
| 46 | having benefits (e.g., health insurance, pension | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

- plan, skills improvement, promotion, etc.) that meet your personal needs
- | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 47 | having the assurance of job security | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 48 | doing work that affords you a good salary | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 49 | having a good working hours | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section (H)

This section seeks general information about your business practices. Please circle one answer in order to state your level of AGREEMENT that this describes your work environment:

- | | | totally disagree | | | totally agree | | | |
|----|---|------------------|---|---|---------------|---|---|---|
| 50 | in my business practices, regulations are prioritise over all sort of relationships | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 51 | in my business practices, I prefer to interact with customers face-to-face | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 52 | in our organisation regulations, there is no exceptions | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 53 | in our organisation, we care about customers | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 54 | I feel shame to work for this organisation | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Section (I)

This section seeks some personal information about you for statistical purposes:

55. How often do you currently use e-services in your work:

1. do not use at all
2. use less than once each week
3. use about once each week
4. use several times a week
5. use about once each day
6. use several times each day

56. Assuming e-services would be available on my job, I predict that I will use it on a regular basis in the future:

| | | | | | | | | |
|---------------|---|---|---|---|---|---|---|-------------|
| very unlikely | 1 | 2 | 3 | 4 | 5 | 6 | 7 | very likely |
| | | | | | | | | |

57. How often in your business practices do you deal with external customers:

- 1. not at all
- 2. about once each week
- 3. several times a week
- 4. about once each day
- 5. several times each day

58. How old are you?

- 1. 20-24
- 2. 25-29
- 3. 30-34
- 4. 35-39
- 5. 40-49
- 6. 50-59
- 7. 60 or over

59. What is your level of education?

- 1. high school
- 2. diploma
- 3. bachelor
- 4. master
- 5. doctoral
- 6. other, please specify:

60. What is your organisation's sector?

- 1. public
- 2. private
- 3. other, please specify:

61. What is your job title?

62. Please provide more comments here if necessary.

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Thank you very much for your cooperation!

Please provide your contact details if you are happy to be contacted for further information if required.

Name:

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Phone number:

Email:

Appendix 5: the study questionnaire