

# **IDENTIFYING THE RELEVANCE OF PERSONAL VALUES TO E-GOVERNMENT PORTALS' SUCCESS: INSIGHTS FROM A DELPHI STUDY**

Obaid Almalki

Business School, University of Bedfordshire, United Kingdom  
[obaid.almalki@beds.ac.uk](mailto:obaid.almalki@beds.ac.uk)

Yanqing Duan

Business School, University of Bedfordshire, United Kingdom  
[yanqing.duan@beds.ac.uk](mailto:yanqing.duan@beds.ac.uk)

Ingo Frommholz

Faculty of Creative Arts, Technologies & Science, University of Bedfordshire, United Kingdom  
[ingo.frommholz@beds.ac.uk](mailto:ingo.frommholz@beds.ac.uk)

Markus Haag

Business School, University of Bedfordshire, United Kingdom  
[markus.haag@beds.ac.uk](mailto:markus.haag@beds.ac.uk)

## **ABSTRACT**

Most governments around the world have put considerable financial resources into the development of e-government systems. They have been making significant efforts to provide information and services online. However, previous research shows that the rate of adoption and success of e-government systems vary significantly across countries. It is argued here that culture can be an important factor affecting e-government success. This paper aims to explore the relevance of personal values to the e-government success from an individual user's perspective. The ten basic values identified by Schwartz were used. A Delphi study was carried out with a group of experts to identify the most relevant personal values to the e-government success from an individual's point of view. The findings suggest that four of the ten values, namely Self-direction, Security, Stimulation, and Tradition, most likely affect the success. The findings provide a basis for developing a comprehensive e-government evaluation framework to be validated using a large scale survey in Saudi Arabia.

Keywords: e-government, e-government evaluation, e-government portals success, personal values, culture.

## **INTRODUCTION**

Governments all over the world have invested heavily in Information and Communication Technology (ICT) in general and e-government systems in particular. For example, the Canadian government has allocated \$880 million to invest in e-government technologies from 2000 to 2005 (Kumar *et al.*, 2007). Another example from the Eastern world is the South Korean government. It invested \$5 billion in ICT between 1996 and 2001 (Lee *et al.*, 2005). Saudi Arabia as both a Middle Eastern and developing country has invested about \$800 million in e-government (AMEinfo, 2006).

This big spending on e-government technologies is, however, offset by a great fear of failure. A study by Heeks (2003) found that 35% of e-government initiatives

were total failures (i.e. “the initiative was never implemented or was implemented but immediately abandoned”), 50% were partial failures (i.e. “major goals for the initiative were not attained and/or there were significant undesirable outcomes”), and only 15% of e-government initiatives were regarded as being successful (i.e. “most stakeholder groups attained their major goals and did not experience significant undesirable outcomes”). Nowadays, the fears of failure is not the only issue but other issues have also emerged, such as the impact of e-government in terms of environment and corruption (e.g. Almalki *et al.*, 2012; Shapiro, 2013; Karunasena & Deng, 2012; Bertot *et al.*, 2010).

Research on e-government has a relatively short history (Dwivedi, 2009). Governments all over the world have started launching their e-government initiatives only since the late 1990s (Torres *et al.*, 2005; Meijer *et al.*, 2009), aiming at delivering their information and services in electronic form to their citizens, residents, and businesses (Torres *et al.*, 2005). E-government, like any other application of information systems (IS), has been researched since it has emerged. However, its short research history means that some crucial issues such as e-government success have not been fully investigated yet from different perspectives despite a significant number of papers being published in this area.

Analyzing the most cited articles published since 2008 in the Government Information Quarterly Journal reveals that the most frequently cited paper was about assessing the success of e-government. This study was conducted by Wang & Liao (2008) and empirically tested and validated the updated IS success model of DeLone & McLean (2003) in the context of e-government. It adapted the model without any modification. However, the many citations of this study indicate the substantial interest in academia in issues related to the success of e-government.

In addition, looking at the recent publications in e-government research by (Worrall, 2011) reveals that the evaluation of e-government success in general is still one of the major issues investigated by researchers. Studies on e-government have focused on a variety of issues, such as its adoption and acceptance (e.g. Shareef *et al.*, 2011; Ozkan & Kanat, 2011; Kumar *et al.*, 2007; Srivastava & Teo, 2009; Tung & Rieck, 2005), its evaluation (e.g. Barnes & Vidgen, 2006; Papadomichelaki & Mentzas, 2012; Karunasena & Deng, 2012; Irani *et al.*, 2005) and success (Wang & Liao, 2008; Floropoulos *et al.*, 2010; Gil-García & Pardo, 2005). The aforementioned studies within their classified groups look at e-government from different angles. For instance, the trust in e-government has been investigated from different perspectives (e.g. trust in governments and trust in using e-government technology). Another important theme of e-government research is the impact of e-government systems on individuals (e.g. Irani *et al.*, 2012; Chan *et al.*, 2010).

## CULTURE AND VALUES

Culture has always been considered as a major factor affecting IS adoption and success and many researchers have examined culture and its impact on IS success (e.g. Leidner & Kayworth, 2006; Agourram, 2009; Al-Gahtani *et al.*, 2007). E-government, as a specific application of ICTs, can also be affected by culture (e.g. Lean *et al.*, 2009; Aladwani, 2012; Zhao, 2013). A previous study conducted by the authors suggests that culture can also play a critical role affecting individuals' perception of the e-government portals' success (Al). However, culture is a challenging variable to study since it has various definitions and measurement items (Leidner & Kayworth, 2006).

When conducting research that involves culture, the first challenge is to understand what culture is, how it is conceptualized, and what the possible

dimensions are that formed the concept of culture (Straub *et al.*, 2002). Many definitions of the term “culture” are available in the literature. It is notable to mention that Kroeber & Kluckhohn (1952) identified 164 definitions of culture. These definitions were formed in different ways and from many perspectives (Kroeber & Kluckhohn, 1952).

The definitions of culture differ in their understanding and using of a central concept (Sackmann, 1992). These central concepts might be: a set of beliefs, basic assumptions and a set of shared core values. This may create some ambiguity and confusion since different authors use these concepts in different ways (Sackmann, 1992).

The differences between conceptualizations of culture manifest themselves at four different levels (Hofstede *et al.*, 2010). These levels explain the culture concept when going into depth of its concept. The importance of mentioning these levels is to show where the value concept is located into the culture. Values occupy the kernel position in the culture concept. Table 1 shows the manifestations of culture at five levels: Symbols, heroes, rituals, practices and values. The definitions and examples of these manifestations are taken from (Hofstede *et al.*, 2010).

TABLE 1 DEFINITIONS AND EXAMPLES OF MANIFESTATIONS OF CULTURE (Hofstede *et al.*, 2010)

<b>Manifestations of Culture at Different Levels</b>	<b>Definitions and Examples</b>
<b>Symbols</b>	Words, gestures, pictures, or objects that carry a particular meaning that is recognized as such only by those who share the culture (e.g. language)
<b>Heroes</b>	Persons, alive or dead, real or imaginary, who possess characteristics that are highly prized in a culture and those serve as models for behaviour (e.g. parents)
<b>Rituals</b>	Collective activities that are technically superfluous to reach desired ends but that, within a culture, are considered socially essential
<b>Practices</b>	Symbols, heroes, rituals are subsumed under the term practices
<b>Values</b>	Broad tendencies to prefer certain states of affairs over others. Values are feelings with an added arrow indicating a plus and a minus side (e.g. evil versus good and dangerous versus safe)

### **Personal Values**

Values were defined by Rokeach (1973) and Schwartz (1992) as cognitive representations of desirable and abstract goals. Personal values can influence the behaviour of individuals in various aspects of life. Rokeach (1973, p. 3) states the

importance of personal values for all sciences and when it is vital to study human behaviours: “The value concept, more than any other, should occupy a central position ... able to unify the apparently diverse interests of all the sciences concerned with human behavior”. Schwartz (1992, p. 3) justifies the identification and classification of human values in his study, arguing that “identification of a universal structure would permit the derivation of basic value dimensions that could be used for the purposes of comparison”.

The ten basic values identified by Schwartz (1992) include all the core values that are widely recognized in cultures around the world (Schwartz, 2009). Table 2 lists the ten value types taken from Schwartz (2009). Schwartz’s classification can help researchers to know what values are most related to their phenomenon and what values have less of an impact. Schwartz (1992) commented on these terms and stated that they proclaim the centrality of personal values.

TABLE 2 THE VALUE TYPES AND DEFINITIONS (Schwartz, 2009)

<b>Value Type</b>	<b>Definition</b>
Power	Social status and prestige, control or dominance over people and resources
Achievement	Personal success through demonstrating competence according to
Hedonism	Pleasure and sensuous gratification for oneself
Stimulation	Excitement, novelty, and challenge in life
Self-direction	Independent thought and action; choosing, creating, exploring
Universalism	Understanding, appreciation, tolerance, and protection for the welfare
Benevolence	Preserving and enhancing the welfare of those with whom one is in
Tradition	Respect, commitment, and acceptance of the customs and ideas that
Conformity	Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
Security	Safety, harmony, and stability of society, of relationships, and of self

### **Personal Values in e-Government Portals' Success**

Personal values have been considered in many different research areas. Researchers have included personal values as an important aspect in their studies. Such studies include environmental studies (e.g. Papagiannakis & Lioukas, 2012; Lee, 2011), mall shopping behaviour (e.g. Shim & Eastlick, 1998; Cai & Shannon, 2012), food consumption (e.g. Vermeir & Verbeke, 2008; Hauser *et al.*, 2011).

Personal values have also been considered in a number of studies in relation to IS adoption. For example, in the electronic shopping (e-shopping) context, Jayawardhena (2004) conducted a study to enhance the understanding of electronic consumers’ (e-consumers) purchase behaviour by taking into consideration the effects of personal values on consumer attitude and behaviour. Jayawardhena (2004) followed the value-attitude-behaviour model that is widely used to examine the role of personal values in various contexts. Jayawardhena (2004) found that: " Individual attitudes towards e-shopping were a direct predictor of e-shopping behaviour and mediated the relationship between personal values and behaviour. His findings on the relationship among personal values, attitudes and behaviour may be exploited by e-tailers to position e-shops and to provide a persuasive means for e-shoppers to satisfy their

needs. Moreover, Haag *et al.* (2009) also explored the relationship between personal values and personal knowledge development in e-learning environments.

The rationale of considering personal values in our study is based on the argument made by Schwartz and Bilsky (1987). They point out that the impacts of values as independent variables on both attitudes and behaviour can be predicted, and interpreted more effectively by using indexes of the importance of value domains as opposed to single values. Adopting the personal value theory in the context of e-government portals will enable us to use this theory to explain the role of personal values in affecting individuals' perceptions on the e-government portals success.

## **RESEARCH METHOD**

To know which of the ten personal values are mostly relevant to e-government portals success, a Delphi study was conducted with a panel of experts. The aim of this Delphi study was to investigate which value types are particularly relevant to e-government portals' success from an individual user's perspective. The result of this Delphi study will be used later in a PhD research to examine to what extent, and how, the identified value types affect e-government portals' success.

### **Delphi Method**

The Delphi method seeks to obtain consensus on the opinions of experts through a series of questionnaires that collect and aggregate informed judgements on specific questions or issues (Duan *et al.*, 2010). The Delphi method has been widely used in various research disciplines and has become an important technique in a variety of research areas (e.g. engineering, technology, social sciences, business administration and physical sciences) (Krishnaswamy *et al.*, 2009). It has been a very useful method in IS research (Okoli & Pawlowski, 2004; Gonzalez *et al.*, 2010; Brüggen & Willems, 2009).

A Delphi method is suitable when researchers or practitioners find no sufficient information to rely on to make decisions. Consequently, researchers seek the help from experts in the field of their research and conduct their study in the form of a series of questionnaires in one or more rounds (Krishnaswamy *et al.*, 2009; Skulmoski *et al.*, 2007). The number of rounds that is required to arrive at an acceptable level of consensus can differ. Some researchers can reach an acceptable consensus in two rounds (Turoff, 1970). However, some studies carried out a Delphi study using only one round (Skulmoski *et al.*, 2007). This is because the prime goal of a Delphi method is not to carry out specific number of rounds but to obtain a significant and substantial consensus among experts (Krishnaswamy *et al.*, 2009).

The key advantage of this method is to avoid direct interaction and confrontation between the experts (Okoli & Pawlowski, 2004). This will enable the nominated experts not to provide their opinions under the influence of other experts since the opinions are provided in an anonymous manner.

The Delphi method is adopted in this study for a number of reasons. First, this study is to examine which value types are relevant to e-government portals' success. This ambiguous issue which has not been investigated in the literature requires knowledge from people who understand factors affecting IS success, e-government, and cultural and personal values. Second, the Delphi study method allows the researchers to collect richer data leading to a deeper understanding of the research questions.

### **Expert Selection**

A Delphi study requires qualified experts with a deep understanding of the issues. According to Okoli & Pawlowski (2004) choosing appropriate experts is the most important but also the most neglected part of a Delphi study. Therefore, great caution has been taken when selecting experts in this study. The main goal of the research was to determine which of the ten individual-level value types are particularly relevant to e-government portals' success. The research theme covers three major research streams that are e-government, websites evaluation and personal values/cultural studies. Forty experts were invited to participate. All of them were selected based on their publications, esteem in the field and experience from the information published on their personal website. They have demonstrated extensive knowledge and understanding of the chosen fields. For example, some experts were identified through research on the relevant journal editorial board members.

There is a lack of agreement between scholars on the number of experts required for a Delphi study. Some researchers (e.g. Brockhoff, 1975) suggest that the minimum number of experts needed in order to get valid results is four. Others, such as Okoli & Pawlowski (2004) suggest to use 10-18 experts. Although forty experts were invited to participate in the study, we expected to have over 10 experts to participate in all rounds of surveys until a satisfactory consensus level is achieved.

### **Data Collection Procedure**

The data were collected in two rounds. In the first round, a questionnaire was adapted based on the questionnaire of Haag (2010). The questionnaire was divided into different sections and intended to be as short and simple as possible in order to increase the response rate.

In the first round, the following information was collected:

1. Section one provides instructions to participants on how to participate in this Delphi study.
2. Section two provides background information about the Delphi study.
3. Section three collects participant's demographic information.
4. Section four asks the participants to select no more than five value types based on their judgement. These value types should be either particularly relevant or have a significant impact on e-government portals' success. The participants were invited to add their justification.
5. Section five explains the value types under investigation. This section lists all the ten individual-level value types along with their definitions and explanations from different sources of information.

E-mails were sent to forty experts to brief them about the Delphi study. The experts had the option to fill in the Word document questionnaire or the online version. Two rounds of reminder e-mails were sent. Eleven experts out of forty responded to the survey in the first round, which represents a response rate of 28%.

The level of consensus in the first round was not sufficient and another round was carried out. Based on the compiled results, customised e-mails were sent to the eleven respondents. Each e-mail included the compiled results along with the selected value types by that particular respondent. In the second round, the experts were requested to rank no more than five value types from 1 to 5, where 1=least relevant and 5=most relevant. All the 11 experts responded to the second round. Reminder e-mails were sent once to some of the respondents who did eventually respond by the specified deadline.

## **RESULTS AND ANALYSIS**

This section is divided into two main parts based on the number of rounds carried out in this Delphi study. The first part summarizes the results of the first round. The second part summarizes and discuss the results of the second round and their implications on this stage of the PhD and the future stages.

### Results of the First Round

Eleven responses were received after sending reminder e-mails to all the nominated experts twice. The results have been compiled and presented in Table 3. The percentage of agreement was calculated by dividing the number of responses by the number of respondents and multiply it to 100.

TABLE 3 DELPHI STUDY: FIRST ROUND RESULTS

Value type	Selecting Value Types as Particularly Relevant To/ Having an Impact on e-Government Portals' Success	
	Total Number of Respondents: 11	
	No. of responses	Percentage
Self-direction	9	82%
Stimulation	7	64%
Security	7	64%
Tradition	5	45%
Conformity	5	45%
Achievement	4	36%
Hedonism	4	36%
Power	4	36%
Universalism	3	26%
Benevolence	1	9%

As it can be seen in this table, Self-direction has the highest level of agreement. The remaining value types have medium, low and very low level of agreement. The last two value types, namely universalism and benevolence, showed the least level of agreement (26% and 9%, respectively) and it was decided to remove them from the second round.

### Results of the Second Round

The percentage of the level of agreement was calculated in this round based on the rankings given by the respondents. The level of agreement for each of the remaining eight value types was calculated by dividing the average of the rankings by the number of responses for each value type. The value types are listed in descending order based on the average rankings in Table 4.

TABLE 4 DELPHI STUDY: SECOND ROUND RESULTS

<b>Selecting Value Types as Particularly Relevant To/Having an Impact of e-Government Portals' Success</b>			
<b>Value Type</b>	<b>Total Number of Respondents: 11</b>		
	<b>No. of Responses</b>	<b>Sum of Rankings = <math>\sum</math>Rankings</b>	<b>Percentage of Agreement = <math>(\sum \text{Rankings} / 55) * 100</math></b>
Self-direction	10	39	71%
Security	10	38	69%
Stimulation	9	34	62%
Tradition	9	28	51%
Conformity	7	19	35%
Achievement	6	17	31%
Power	5	13	24%
Hedonism	4	7	13%

Based on the calculations in Table 4, a summary of the levels of agreement for the two rounds is provided in Table 5. It can be seen that the levels of agreement in both rounds are quite similar.

**TABLE 5 COMPARISONS BETWEEN THE FIRST AND THE SECOND ROUND  
Selecting Value Types as Particularly Relevant To/Having an Impact of e-  
Government Portals' Success**

**Total Number of Respondents: 11**

**Percentage of Agreement**

<b>Value type</b>	<b>Round 1</b>	<b>Value type</b>	<b>Round 2</b>
Self-direction	82%	Self-direction	71%
Security	64%	Security	69%
Stimulation	64%	Stimulation	62%
Tradition	45%	Tradition	51%
Conformity	45%	Conformity	35%
Achievement	36%	Achievement	31%
Power	36%	Power	24%
Hedonism	36%	Hedonism	13%

## **DISCUSSION**

The ranking of the importance of the personal value types helps to identify the most relevant value types to e-government portals' success. Thus, these values were added to the proposed framework that is going to be tested in the context of Saudi Arabian e-government portals.

In this section, the opinions given by the expert panel in the first round are illustrated and discussed. It is noted that most of the comments were made when an expert felt that the value type is particularly relevant to e-government portals' success. Very few comments were given by the experts on why other values types are less relevant to e-government portals' success. Therefore, it can be noted that the comments presented in this section are largely supporting the relevance of value types to e-government portals' success. In the following discussion, some comments by the experts regarding self-direction, security, stimulation and tradition are presented and discussed.

### **Self-Direction**

Self-direction is the highest ranked value type in this Delphi study. Experts gave different justifications for selecting self-direction as particularly relevant to e-government portal's success.

One of the experts commented: "By visiting the e-government portal, you often have a particular aim in mind, i.e. something you want to achieve, e.g. submitting a particular request". This comment points to one of the measurement items of self-direction which is "Choosing our own goals" (Schwartz, 1992). This might mean that an e-government user who scores high on self-direction might want to share his goals/purposes of using the portals with others (i.e. government organizations, officials, users, etc). He/she might not want the others (i.e. government organization) to be dominant in specifying the goals of creating or using the portal. Moreover, those

users who score high on self-direction may think that it is important to be interested in using e-government portals in general and also to be independent (i.e. not to rely on the public sector organizations' employees to do things and to be restricted by their rules to get information or receive services).

Another expert commented: "Freedom in terms of time and place is the biggest thing that an e-government user is looking for, as he/she does not want to visit the government office but do things online at a convenient time and place". This comment clearly relates to the measurement item "Freedom" (Schwartz, 1992). This suggests that a person who scores high on self-direction may be eager not to be restricted by the time and place to receive the e-government services. He/she believes that dealing with the government can be conducted in a convenient manner regardless of time and location restrictions.

One of the experts pointed out that "an e-government user who scores high on self-direction is likely to be independent and do not prefer to be under the control of the others". This person might not like to be controlled by the public sector employees and does not prefer to interact with them face-to-face. Almalki *et al.* (2012) identified that one of the reasons why users prefer to use available e-government services is that one may be able to avoid the possibility of corruption that exists when visiting offices and ask for services in a face-to-face setting. This may indicate that when dealing with government organizations, interacting with government employees and being controlled by them can be seen as a negative experience due to the possible administrative and/or financial corruptions.

## Security

First of all, it is crucial to distinguish between the term "security" in the context of human values and in the context of IT. In the context of human values the definition of security given by Schwartz *et al.* (2001) is as follows: "Safety, harmony and stability of society, of relationships, and of self". In the context of IT and its applications, security is mainly defined as protecting users from fraud/financial loss and ensuring that a transaction is carried out as it was supposed to be (Papadomichelaki & Mentzas, 2012).

The issue of security has received a lot of interest in IS research. In developed countries, security is given great attention in various applications of IS such as online banking (Yuen *et al.*, 2010). According to Yuen *et al.* (2010), commenting on security in online banking, they suggest that users in developed countries enjoy more security and better privacy measures and legislation. This should be considered with the same importance in the field of e-government because some services could involve money transfer. In sum, security is an important factor in whether or not individuals will use web-based services (Belanger & Hiller, 2006).

In the context of e-government, the users are expected to provide more personal information when making transactions with e-government systems, in which they expose themselves to viruses, hacker attacks and identity theft (Kaisara & Pather, 2011). This makes security one of the worrying issues when using computers in general and being connected to the Internet in particular. Moreover, the expert panel has ranked security as one of the values that is particularly relevant to e-government portals' success. Therefore, an e-government portals' user who scores high on security as a value may score high as well on measurement items related to financial risk, security risk, and privacy risk.

The experts in this Delphi study look at security from a different point of view. The first comment raises a concern about the relationship between the government

and the individuals: “I think this is very important. If I use an e-government portal, I do not want the government to use my interaction against me. There needs to be trust that my data is not misused”. The other two comments discuss the issues of security and privacy when using the e-government portal: “I guess this may be very important because users should feel that the shared information is safe and secure”, whereas the other comment states: “Users will use the portal when they have the feeling that their user data is safe”.

### **Stimulation**

Stimulation is defined as “Excitement, novelty, and challenge in life” (Schwartz, 1992). In the context of using IT in general and e-government systems in particular, it is expected that the stimulation value may drive a person to leave the traditional method of receiving government services and utilize e-government systems. Using e-government is still a relatively new method of interacting with governments. This has been expressed by different experts in slightly different terms. One of the experts stated: “Using e-government portals might be for some people a relatively new and exciting approach to search for information provided by public bodies. Browsing and exploring e-government portals could also be interesting and stimulating to people and make them want to find out more about the services public bodies can offer”.

One of the experts stated that the stimulation should come from the e-government systems itself. These systems should include means to foster a user’s engagement with the site: “An e-government system, like all interactive systems, should stimulate me and provide means to foster my engagement with the site. I need to have a positive user experience; I think this is the one of the crucial factors for a portal’ success and the reason why I may choose the portal over just picking up the phone”.

Another expert mentioned that there is a “need to define ‘success’ of e-government portals. If it is increased usage by public, I see using e-government portal may make certain people feel convenient, thus an enjoyable thing to get things done”. In this situation, the e-government users will be stimulated after using e-government portal and feel convenient when using it. Both of the previous comments may indicate that the e-government user who scores high on stimulation is likely to score high on the quality dimensions of an e-government portal.

### **Tradition**

When governments deliver services to their clients (i.e citizens and residents), their services can be categorized into two major types: the traditional way of visiting the government office in person or using telephone (Heeks, 2008), and the new way of using the e-government systems to obtain the information/services. Using e-government portals is an example of the second type of governments’ services delivery.

Generally, clients expect a better quality of services delivery via e-government portals. According to Lin *et al.* (2011), Gambians using e-government websites tend to expect more efficiency and effectiveness of online services compared to the traditional face-to-face/counter approach. However, this is not something that can be generalized to all clients. Based on the definition of the tradition value, i.e. “respect, commitment, and acceptance of the customs and ideas that traditional culture or religion provide” (Schwartz, 1992) and its explanation given by Changingminds.org (2012) that “The traditionalist respects that which has gone before, doing things simply because they are customary. They are conservatives in the original sense,

seeking to preserve the world order as is. Any change makes them uncomfortable”; clients who are supposed to be traditionalist are likely to be reluctant to use e-government portals. This is due to their internal belief that they respect what has gone before which is visiting the government office to interact face-face to the employees.

One of the experts on the panel commented on what could be the relationship between people who can be described as traditionalist and using e-government portals by saying: “scoring high on tradition might have a negative effect here. People might prefer the old-fashioned way of getting government information or they might prefer to deal with real people that can be advice them face-to-face”.

Another expert discussed the importance of the tradition value and stressed that e-government portals should not disrupt a user’s traditions: “this may also be important for users to feel that e-government does not disrupt their traditions. but this may vary a lot for different individuals”. One expert recommended that, when users use e-government portals, they should not feel that they are disconnected from what they used to do with the government offices and the e-government portals should be implemented based on their requirements. This can be achieved, as the expert suggested, as follows: “[a] system will be easier to use when users find features/information/functionality that they know from the 'offline world' and they can connect to”.

## CONCLUSION

To understand the e-government portal success from an individual’s point of view, it is argued that personal values play an important role. The ten basic values identified by Schwartz have been recognized as a valuable instrument to measure various dimensions of personal values. They have been used in different studies to establish the relationships between personal values and their impact on the chosen issues. However, not all of the ten values may be equally relevant to e-government success. Therefore, this study aims to identify the most relevant value types to the e-government portals’ success. The findings will lead a more focused approach in developing and testing a framework for e-government portal success evaluation.

The findings of this Delphi study show that self-direction, security, stimulation and tradition have been selected from the ten individual-level value types with regard to their relevance to e-government portal’s success. These preliminary findings provide valuable insights and a sound basis for future research. For example, these four value types will be included in a theoretical framework of a PhD research. The framework will be tested along with other dimensions in the next stage of the research to further validate the relevance and extent of the impact of personal values on e-government success in Saudi Arabia.

## REFERENCES

- Agourram, H. (2009). Defining information system success in Germany. *International Journal of Information Management*, 29, 129-137.
- Al-Gahtani, S. S., Hubona, G. S., & Wang, J. (2007). Information technology (IT) in Saudi Arabia: Culture and the acceptance and use of IT. *Information and Management*, 44, 681-691.
- Aladwani, A. M. (2012). A cross-cultural comparison of Kuwaiti and British citizens' views of e-government interface quality. *Government Information Quarterly*, 30, 74-86.

- Almalki, O., Duan, Y., & Frommholz, I. (2012). An Exploratory Study on eGovernment Systems Success in Saudi Arabia. Proceedings of 12th European Conference on e-Government, Barcelona, Spain. 14-15 June 2012, 38-46.
- Almalki, O., Duan, Y., & Frommholz, I. (2013). Developing a Conceptual Framework to Evaluate e-Government Portals' Success. Proceedings of 13th European Conference on e-Government, Como, Italy. 13-14 June 2013
- AMEinfo (2006). *Saudi investment in e-Government tops SAR 3 Billion* [Online]. AMEinfo, The ultimate Middle East business resource. Available: <http://www.ameinfo.com/94409.html> [Accessed 25 November 2011].
- Barnes, S. J., & Vidgen, R. T. (2006). Data triangulation and web quality metrics: A case study in e-government. *Information & Management*, 43, 767-777.
- Belanger, F., & Hiller, J. S. (2006). A framework for e-government: privacy implications. *Business Process Management Journal*, 12, 48-60.
- Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly*, 27, 264-271.
- Brockhoff, K. (1975). *The performance of forecasting groups in computer dialogue and face-to-face discussion, The Delphi Method: Techniques and Applications*, London, Addison-Wesley.
- Bronk, C., & Tikk-Ringas, E. (2013). The Cyber Attack on Saudi Aramco. *Survival*, 55, 81-96.
- Brueggen, E., & Willems, P. (2009). A critical comparison of offline focus groups, online focus groups and e-Delphi. *International Journal of Market Research*, 51, 363-381.
- Cai, Y., & Shannon, R. (2012). Personal values and mall shopping behavior: The mediating role of attitude and intention among Chinese and Thai consumers. *Australasian Marketing Journal (AMJ)*, 20, 37-47.
- Chan, F. K. Y., Thong, J. Y. L., Venkatesh, V., Brown, S. A., Jen-Hwa Hu, P., & Kar Yan, T. (2010). Modeling Citizen Satisfaction with Mandatory Adoption of an E-Government Technology. *Journal of the Association for Information Systems*, 11, 519-549.
- Changingminds.org (2012). *Schwartz's Value Inventory* [Online]. Available: [http://changingminds.org/explanations/values/schwartz\\_inventory.htm](http://changingminds.org/explanations/values/schwartz_inventory.htm) [Accessed 09 November 2012].
- Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 19, 9-30.
- Duan, Y., Nie, W., & Coakes, E. (2010). Identifying key factors affecting transnational knowledge transfer. *Information & Management*, 47, 356-363.
- Dwivedi, Y. K. (2009). An analysis of e-Government research published in Transforming Government: People, Process and Policy (TGPPP). *Transforming Government: People, Process and Policy*, 3, 7-15.
- Floropoulos, J., Spathis, C., Halvatzis, D., & Tsiouridou, M. (2010). Measuring the success of the Greek Taxation Information System. *International Journal of Information Management*, 30, 47-56.
- Gil-Garcia, J. R., & Pardo, T. A. (2005). E-government success factors: Mapping practical tools to theoretical foundations. *Government Information Quarterly*, 22, 187-216.
- Gonzalez, R., Gasco, J., & Llopis, J. (2010). Information systems outsourcing: a Delphi study from Spain. *Business Process Management Journal*, 16, 244-263.

- Haag, M. (2010). *Personal Knowledge Development in Online Learning Environments: A Personal Value Perspective*. University of Bedfordshire, UK.
- Haag, M., Duan, Y., & Mathews, B. (2009). Which Personal Values are Most Relevant to Knowledge Development Through e-Learning? Insights From a Delphi Study. *Proceedings of the European Conference on Knowledge Management*, 356-363.
- Hauser, M., Jonas, K., & Riemann, R. (2011). Measuring salient food attitudes and food-related values. An elaborated, conflicting and interdependent system. *Appetite*, 57, 329-338.
- Heeks, R. (2003). *Most e-government-for-development projects fail: how can risks be reduced?*, Manchester, Institute for Development Policy and Management, University of Manchester.
- Heeks, R. (2008). Chapter 13 - Benchmarking e-Government: Improving the national and international measurement, evaluation and comparison of e-Government. *Evaluating Information Systems*. Oxford: Butterworth-Heinemann.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind. 3<sup>rd</sup> edition*, McGraw-Hill, New York, NY.
- Irani, Z., Love, P. E. D., Elliman, T., Jones, S., & Themistocleous, M. (2005). Evaluating e-government: learning from the experiences of two UK local authorities. *Information Systems Journal*, 15, 61-82.
- Irani, Z., Weerakkody, V., Kamal, M., Hindi, N. M., Osman, I. H., Anouze, A. L., El-Haddadeh, R., Lee, H., Osmani, M., & Al-Ayoubi, B. (2012). An analysis of methodologies utilised in e-government researchA user satisfaction perspective. *Journal of Enterprise Information Management*, 25, 298-313.
- Jayawardhena, C. (2004). Personal values' influence on e-shopping attitude and behaviour. *Internet Research*, 14, 127-138.
- Kaisara, G., & Pather, S. (2011). The e-Government evaluation challenge: A South African Batho Pele-aligned service quality approach. *Government Information Quarterly*, 28, 211-221.
- Karunasena, K., & Deng, H. (2012). Critical factors for evaluating the public value of e-government in Sri Lanka. *Government Information Quarterly*, 29, 76-84.
- Krishnaswamy, K., Sivakumar, A. I., & Mathirajan, M. (2009). *Management Research Methodology: Integration of Principles, Methods and Techniques*, Prentice Hall.
- Kroeber, A. L., & Kluckhohn, C. (1952). Culture: A critical review of concepts and definitions. *Papers. Peabody Museum of Archaeology & Ethnology, Harvard University*.
- Kumar, V., Mukerji, B., Butt, I., & Persaud, A. (2007). Factors for successful e-government adoption: a conceptual framework. *Electronic Journal of E-government*, 5, 63-76.
- Lean, O. K., Zailani, S., Ramayah, T., & Fernando, Y. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. *International Journal of Information Management*, 29, 458-475.
- Lee, K. (2011). The role of media exposure, social exposure and biospheric value orientation in the environmental attitude-intention-behavior model in adolescents. *Journal of Environmental Psychology*, 31, 301-308.
- Lee, S. M., Tan, X., & Trimi, S. (2005). Current practices of leading e-government countries. *Communications of the ACM*, 48, 99-104.

- Leidner, D. E., & Kayworth, T. (2006). A review of culture in information systems research: Toward a theory of information technology culture conflict. *MIS Quarterly*, 30, 357-399.
- Lin, F., Fofanah, S. S., & Liang, D. (2011). Assessing citizen adoption of e-Government initiatives in Gambia: A validation of the technology acceptance model in information systems success. *Government Information Quarterly*, 28, 271-279.
- Meijer, A., Boersma, K., & Wagenaar, P. (2009). *ICTs, Citizens and Governance: After the Hype!*, Ios Press Inc.
- Okoli, C., & Pawlowski, S. D. (2004). The Delphi method as a research tool: an example, design considerations and applications. *Information & Management*, 42, 15-29.
- Ozkan, S., & Kanat, I. E. (2011). e-Government adoption model based on theory of planned behavior: Empirical validation. *Government Information Quarterly*, 28, 503-513.
- Papadomichelaki, X., & Mentzas, G. (2012). e-GovQual: A multiple-item scale for assessing e-government service quality. *Government Information Quarterly*, 29, 98-109.
- Papagiannakis, G., & Lioukas, S. (2012). Values, attitudes and perceptions of managers as predictors of corporate environmental responsiveness. *Journal of Environmental Management*, 100, 41-51.
- Raleigh, P. (2012). Cyber attack hits Aramco. *Process Engineering*, 6-6.
- Rokeach, M. (1973). *The nature of human values*, New York: Free press.
- Sackmann, S. A. (1992). Culture and Subcultures: An Analysis of Organizational Knowledge. *Administrative Science Quarterly*, 37, 140-161.
- Schwartz, S. H. (1992). *Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries*, New York:, Academic Press.
- Schwartz, S. H. (2009). Basic human values. *Sociologie*, 42, 249-288.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, 53, 550-562.
- Schwartz, S. H., Melech, G., Lehmann, A., Burgess, S., Harris, M., & Owens, V. (2001). Extending the cross-cultural validity of the theory of basic human values with a different method of measurement. *Journal of Cross-Cultural Psychology*, 32, 519-542.
- Shapiro, S. (2013). The Paperwork Reduction Act: Benefits, costs and directions for reform. *Government Information Quarterly*, 30, 204-210.
- Shareef, M. A., Kumar, V., Kumar, U., & Dwivedi, Y. K. (2011). e-Government Adoption Model (GAM): Differing service maturity levels. *Government Information Quarterly*, 28, 17-35.
- Shim, S., & Eastlick, M. A. (1998). The hierarchical influence of personal values on mall shopping attitude and behavior. *Journal of Retailing*, 74, 139-160.
- Skulmoski, G. J., Hartman, F. T., & Krahn, J. (2007). The Delphi Method for Graduate Research. *Journal of Information Technology Education*, 6, 1-21.
- Srivastava, S. C., & Teo, T. S. H. (2009). Citizen Trust Development for E-Government Adoption and Usage: Insights from Young Adults in Singapore. *Communications of AIS 2009*, 359-378.
- Straub, D., Loch, K., Evaristo, R., Karahanna, E., & Srite, M. (2002). Toward a Theory-Based Measurement of Culture. *Journal of Global Information Management*, 10, 13-23.

- Torres, L., Pina, V., & Acerete, B. (2005). E-government developments on delivering public services among EU cities. *Government Information Quarterly*, 22, 217-238.
- Tung, L. L., & Rieck, O. (2005). Adoption of electronic government services among business organizations in Singapore. *The Journal of Strategic Information Systems*, 14, 417-440.
- Turoff, M. (1970). The design of a policy Delphi. *Journal of Technological Forecasting and Social Change*, 2, 149-171.
- Vermeir, I., & Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64, 542-553.
- Wang, Y.-S., & Liao, Y.-W. (2008). Assessing eGovernment systems success: A validation of the DeLone and McLean model of information systems success. *Government Information Quarterly*, 25, 717-733.
- Worrall, L. (2011). Leading Issues in E-government. In, 2011. Academic Conferences Limited.
- Yuen, Y. Y., Yeow, P. H. P., Lim, N., & Sayalani, N. (2010). Internet banking adoption: Comparing developed and developing countries. *Journal of Computer Information Systems*, 51, 52-61.
- Zhao, F. (2013). An empirical study of cultural dimensions and e-government development: implications of the findings and strategies. *Behaviour & Information Technology*, 32, 294-306.