

Research Article

The Citizens' Intention to Participate in E-Government Public Decision: Pilot Study

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Abstract: This research aims to examine the intention of citizens to participate in decision making of e-government. The emphasis on citizens' participation in e-government initiatives and the e-participation is to identify the importance of citizens' participation in the e-government platform and initiatives. The progress and continuous improvements of new technologies have made it possible for electronic services to be adopted and applied in e-governments to improve the citizens' e-participation. Implementation of e-government has increased in a number of nations. In common, developing countries have been lagging behind in e-government utilisation as compared to developed countries. The citizens' participation increases the effectiveness of the e-government. Previous researchers have studied citizens' participation in e-government to examine its importance. Today's globalisation requires various countries to reform the structure of their public services for efficiency and vast improvement in their delivery of the public service. This research article is meant to discuss the outcomes from the pilot study of the research to define the positive components which have an impact on citizens' participation in the public decision making of the e-government. The pilot research outcomes supported the research hypotheses because all the constructs of this research indicated Cronbach's alpha larger than 0.6 and all of them were acceptable.

Keywords: Citizens' participation, citizens' self-knowledge, electronic government, information technology, public decision making, theory of planned behaviour

INTRODUCTION

Implementation of the e-government initiatives is needed to enhance the services of countries (Abdulraheem, 2012). This is evident in many Middle East countries. There are various variables that are needed to support such initiatives. For the past twenty years, local governments throughout Europe and America along with some parts of the Middle East and Asia have maximised the use of Information Technology (IT) to provide support for their respective work and improve the e-government and one of these variables is the citizens' intentions to participate in the public decision making of the e-government (Alaaraj, 2015; Yusof and Abdulraheem, 2015). Intention is known as the level to which citizens intend to participate by intermediary means or the Internet in services of the e-government in the future (Ajzen, 1991; Wu *et al.*, 2015). E-governments make decisions by a collaborative work by the administrators who are required to serve the public and their concern. Such collaboration eventually provide good decisions and help to identify the shapes of e-governments in all their stages (planning, application) and all parts of the e-governments (Tao and Yu, 2014; Abdulraheem *et al.*, 2016). In a United Nations report about decision

making, it was reported that "Countries in all regions are increasingly embracing innovation and utilising ICTs to deliver services and engage people in decision-making processes" (Abdulraheem and Yusof, 2017; Bershadskaya *et al.*, 2015; UN, 2014).

RELATED THEORIES

Theory of Planned Behaviour (TPB): The Theory of Planned Behaviour (TPB) who proposed by Ajzen (1985) proposed the model of planned behaviour because of the restrictions found in the TRA (Ajzen, 1985). Therefore, this model of the TPB has been mostly utilised and validated by different researches in the prediction of personal behaviour and the intentions towards technology adoption. In addition, the theory of planned behaviour model was proposed to evaluate behaviour and the intentions of the individual in the technology adoption, Jackson *et al.* (1997) recommended that the attitude towards the behaviour and subjective norm constructs can be officially added to the new model (Jackson *et al.*, 1997). Furthermore, the causative relationships between the variables, including subjective norm and attitude, that determines the intention of the citizens participation in the public decision-making of the e-government, needs moderator

Table 1: Definition of components of study model

Variables	Definitions	Authors
Attitude towards acts or behaviour	An individual's personal's negative or positive feelings about executing the purposed behaviour.	(Ajzen and Fishbein, 1980; Kabbar, 2016; Mishra <i>et al.</i> , 2014)
Subjective Norm	The person's understanding that most individuals who are important to him/her believe that she/he could or could not execute the behaviour in question.	(Ajzen and Fishbein, 1980; Al-Swidi <i>et al.</i> , 2014; Kabbar, 2016)
Intention	The person's intention to participant in a definite behaviour.	(Ajzen and Fishbein, 1980; Al-Swidi <i>et al.</i> , 2014; Kabbar, 2016)
Social influence	The degree to which a person understands that other important citizens believe that one could participate in the innovation.	(Escobar-Rodriguez <i>et al.</i> , 2014; Kabbar, 2016; Slade <i>et al.</i> , 2014; Venkateshet <i>al.</i> , 2012)
Facilitating condition	The degree to which a person believes that there is the developed technical infrastructure to back the participation of the new information technology.	(Escobar-Rodriguez <i>et al.</i> , 2014; Slade <i>et al.</i> , 2014; Venkateshet <i>al.</i> , 2012)
Compatibility	The degree to which an innovation or technology is perceived as regular with the needs of the potential adopters, past experiences, and existing values.	(Mooreand Benbasat, 1991; Rogers, 1981)
Culture	The collectivistic and individualistic infrastructure, however, should shed light on how motivation and cognition might identify healthy behaviours in various cultures.	(Balthazardand Cooke, 2004; Markusand Kitayama, 1991)

factors such as; gender, age, level of education, social group and Internet experience. (Ajzen, 1991; Ajzen and Fishbein, 1980). This study will rule out perceived behavioral control factor in TPB theory because, this research focuses on the citizens' intention to participate in the public decision making of the e-government.

The unified theory of acceptance and use of technology: The Unified Theory of Acceptance and Use of Technology (UTAUT2) theory was suggested by Venkateshet *al.* (2012). However, researchers have emphasised that several constructs in the UTAUT2 theory are not suitable with several constructs towards examining the intention to participate in technology. For that, this study takes two constructs from the UTAUT2 to be engaged in this study model. This displays that the components of the UTAUT2 theory are beneficial for modelling the citizens' intentions to participate in the public decision-making of the E-government. This study takes the social influence factor and facilitating conditions factor to study the intentions of the citizens to participate in the public decision-making of the e-government. The UTAUT2 theory factors like social influence and facilitating conditions factors fit with the objectives of this research because they supply 70% of the variance in intention (Kitet *al.*, 2014; Venkatesh *et al.*, 2012). Table 1 shows the definition of components of study model.

Shared Decision Making (SDM): Lewis *et al.* (2016) outline a conceptual model for how organisations can form their operations to support decision-making and contextual structure. Figure 1 shows that this model contains four points: The first point: the six organisational drivers that are the incentives and disincentives: technology of health, procedures and workflows, culture and organisational structure, clinic resources and physical environment and education and training. The second point: the driver influences the

SDM by at least two of the subsequent four mechanisms: continuity and coordination, ease of the SDM, knowledge and skills and attitudes and beliefs. The third point in the SDM model, coordination across organisations group members and visits, is required in order to make decisions as they are rarely constricted to a single visit. The fourth point deliberation, information sharing and decision-making. Clinicians and patients are more prospective to be beginning and motivated to follow the share decision making model as it is easier to make monitor the patient's condition, such as, if the SDM is integrated into expectations, culture and day-to-day transactions as a aspect of their usual care. The specific skills of both the clinicians and patients make the share decision making model easier, including the empathy, open-ended transmission techniques, SDM methods, cultural competence and intuition of the factors affecting care. Key attitudes and beliefs are indispensable for the successful SDM. Patients and clinicians should see usefulness in the SDM and expect that it will work (Lewis *et al.*, 2016; Osman *et al.*, 2017).

Citizens' participation in e-government public decisions: E-governments develop by engaging citizens in the decision making. Countries in the entire world are increasingly embracing innovations and ICTs to employ the citizens in the process of decision making (Abdulraheem and Yusof, 2016). According to the UN, 2016, "In recent years, e-government has enabled enhanced public participation in government decisions in ways that were unthinkable in the past. The use of ICTs and the increased availability of open and innovative channels of communication between governments and citizens, including social media, have made e-participation more widespread and pervasive than ever before". The UN report clarifies that developing the decision making by involving the citizens enhances the e-governments ability to deliver

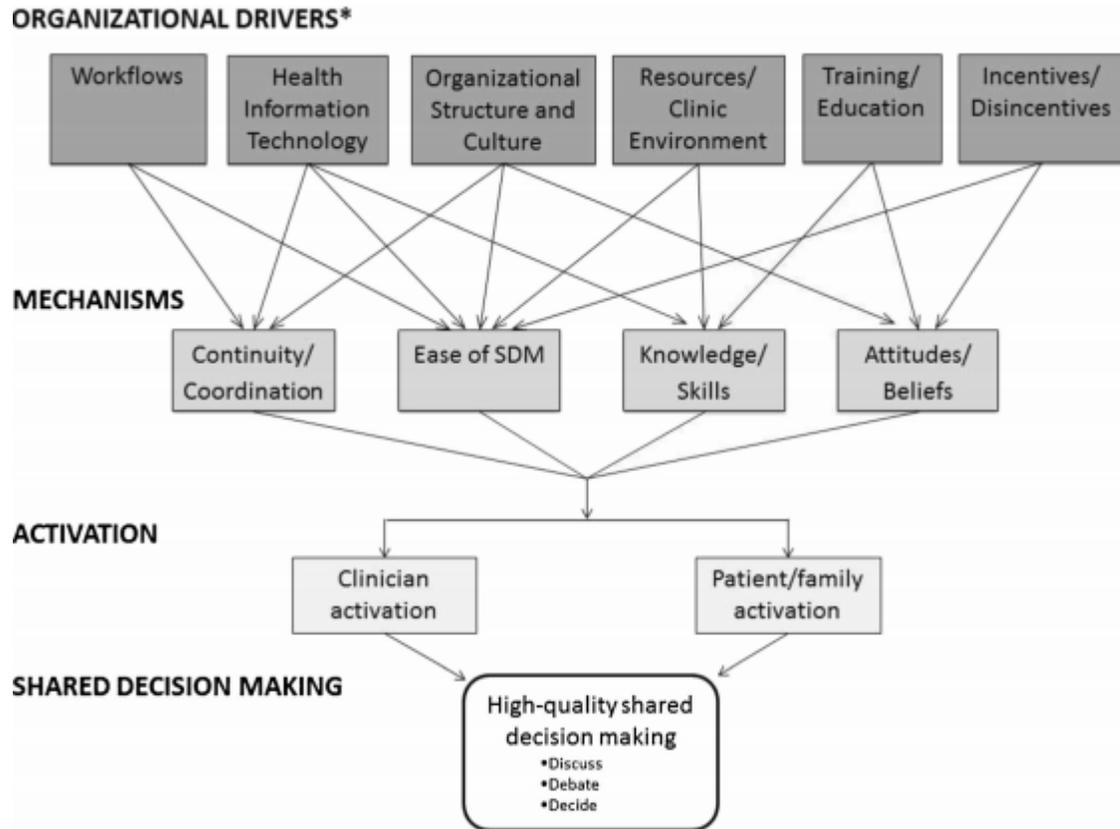


Fig. 1: SDM model (Lewis *et al.*, 2016)

better e-services to the citizens (Abdulraheem *et al.*, 2016; UN, 2016).

RESEARCH OBJECTIVE

This research was intended to examine citizens' intentions to participate in the decision-making in the e-government through citizenship collaboration with the government. The research objective was as follows:

To identify the factors that influence the citizens' intentions to participate in the public decision-making of the e-government.

This objective has supported the motivation of the study. This is what drove the research towards the thinking about attitude towards acts or behaviour and subjective norms, specifically in regards to the TPB theory. Nevertheless, it is essential for decisions to be made in accordance with the overall goals of the agency and the framework of its policies.

METHODOLOGY OF THE RESEARCH

The methodology of the research will be discussed in five steps. The first step was the variables of the research which achieved the citizens' intentions to participate in the public decision-making of the E-government, the second step was the research

hypotheses that depended on the factors that influenced the public decision-making of the e-government by the citizens' intentions to participate in the public decision-making, the third step explained these factors, the fourth step was the equipment used in the survey and the fifth step was the size of the sample and the frame of the sampling.

Variables: The dependent variable was the Behavioural intention, which is the strength of the user's intention to perform a specified behaviour. Previous studies have revealed that the behavioural intention construct was derived from the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1974). The behavioural intention construct has been found to be introduced into the IS research in both acceptance and the use of technology (Ajzen and Fishbein, 1980; Venkatesh *et al.*, 2003).

The independent variables had an effect on the outcome or the dependent variable and may have given rise to a change in the outcome of the research. These factors were called independent variables or determinants. They impacted the dependent variable. The independent variables of this study were the attitude towards acts and subjective norms.

Study hypotheses: The analysis of a hypothesis is a shape of the statisticalculmination thatutilises the

Table 2: Description of hypotheses

HYPO.	I.V.	D.V.
H1	Attitude has a positive effect on the citizens' intention to participate in the public decision making in the e-government.	Citizens' Intention to participate in the public decision making of the e-government
H2	Subjective norms have a positive effect on the citizens' intention to participate in the public decision making in the e-government.	
H3	Social influence will have a positive influence on intention of citizens participate in the public decision making.	
H4	Facilitating conditions will have a positive influence on the behavioural intentions of citizens to participate in the public decision making of e-government.	
H5	Compatibility will be positively related to the intention of citizens to participate in the public decision making in the e-government.	
H6	The culture will be positively related with the types of citizens' participation outcomes that promote the public decision making in the e-government's success.	

information from a sample to draw outcomes about a population's probability allocation or a parameter of the population. First, a tentative assumption is made on the parameter or allocation. Past literature guaranteed hypotheses and applied them (Belanche *et al.*, 2012).

In the IS theories, several theories have a relationship with the ICT participation intention, such as the Theory of Planned Behaviour (TPB), unified theory of acceptance and use of technology (UTAUT2), Diffusion of Innovation (DOI) theory and other theories which mainly focus on the intention to participate. Meanwhile, past studies about the Theory of Planned Behaviour (TPB) and the UTAUT2 have shown that some factors of the (TPB) and (UTAUT2) embedded constructs suitable for measuring the intention to participate in the public decision making of the E-government.

This indicates that the benefit of studying the intention of the citizens to participate in the public decision-making of the e-government enhances the e-service and builds trust between the citizens and the government without the need to spend money or time on new models or techniques; this is parallel to engaging the citizens' self-knowledge characteristics to increase the e-government performance (Abdulraheem *et al.*, 2016). The UN report in 2016 referred to the Citizens' participation in civic, cultural and political activities as being major to promoting inclusion in e-government (UN, 2016). In this section, the study will list the two main hypotheses: Attitude and Subjective norms factors. Table 2 explains the description of hypotheses of study model.

Survey tools: Fact-finding methodology is a formal process used in sampling and data collection. Research methodologies are selected to acquire and gather as much data as needed for research purposes. Research, observations, questionnaires, sampling requirements, preferences and other techniques are used to collect the data of interest. It is imperative that the right or most suitable methodology is chosen to ensure that it provides the best data type and analysis. The survey research was convenient for this study as it was thought to be the best approach to attain information and knowledge on the Iraqi citizens' participation in decision-making and its relevance to the e-government initiatives in the country. Sampling had to be chosen

with great care because the respondents of this research were diverse in background and experiences. As a result, there was an extreme need to establish the decision-making with the citizens' participation in the e-government so as to achieve good research outcomes. In this study, two tools have been explained (Creswell, 2014).

Manual distribution: This way indicates that the survey of the study is given, manually, to the respondents and gathered once the individual respondents have completed the manual surveys. So, this tool as indicated was utilised in this study.

SAMPLING FRAME AND SAMPLE SIZE

The sampling frame has been debated as the lists of components of a population from which a sample is drawn; this could be individual, institutions, geographical areas, or other units. The research of Sarndalet *al.* (2003), Mackey and Gass (2013) and Sekaran and Roger (2013) emphasised that the survey which deals with individuals or people should be a different register of the components of the population, such as the admission register of employees, employees' attendance list in the organisation and the directories of telephone numbers (Mackey and Gass, 2013; Sarndal *et al.*, 2003; Sekaran and Roger, 2013). Hertzog (2008) recommended the feasibility of the pilot study and the sample size as small as 10-30 from each group occasionally being enough (Hertzog, 2008).

This study has taken Iraq's Karbala province as the study case, which contained the political group, with the total of the council province members being 12 respondents. In addition, each province has an ICT department and the total IT employee was 30 respondents. The members of the Chamber of Commerce were 30 respondents. The members of the general federation of Iraqi trade unions were 30 respondents. The total of all the respondents in this study was 102.

RESULTS AND DISCUSSION

For the internal regulation of the elements, each variable in the study was inspected using the reliability information analysis test by Cronbach's alpha. This

Table 3: Demographic results

Category	Minimum	Maximum	Frequency	Percent %
Sample			102	100.0
Respondents groups	1	4		
Political			12	18.9%
Economists			30	27.0%
Technology			30	27.0%
Workers			30	27.0%
Total			102	100.0
Respondents' gender	0	1		
Female			32	32.4%
Male			70	67.6%
Total			102	100.0
Respondents' age	0	6		
18-25			15	8.1%
25-32			20	18.9%
32-39			18	10.8%
39-46			20	16.2%
46-53			11	29.7%
53-60			11	13.5%
60-67			7	2.7%
Total			102	100.0
Respondents' educational level	0	6		
Primary school			4	10.8%
High school			17	24.3%
Vocational/Technical			20	13.5%
Bachelor's			40	45.9%
Master's			14	2.7%
Ph.D			7	2.7%
Total			102	100.0
Respondents' working	0	2		
Private			50	5.4%
Public			30	56.8%
Own			22	37.8%
Total			102	100.0
Social groups	0	3		
Political			12	16.2%
IT			30	18.9%
Economical			30	8.1%
Worker			30	56.8%
Total			102	100.0

Table 4: Reliability analysis results

Construct	Coding	Number of item	Cronbach's alpha
Attitude towards acts or behaviour	ATB	6	0.844
Subjective norms	SN	6	0.675
Social influence	SI	4	0.775
Facilitating conditions	FC	5	0.909
Compatibility	Co	5	0.879
Culture	CU	4	0.688

study, depended on a Cronbach's alpha value of 0.6 or larger than 0.6 as being reliable (Zikmund *et al.*, 2012). For analysing the reliability, the study took 102 respondents to reach the Cronbach's alpha values 0.6 and larger than 0.6. The study used version (21) of the Statistical Package for Social Science (SPSS) to test the reliability and the pilot test.

Demographic outcomes: The pilot analysis research was managed with 102 respondents for all of the groups; where, there were questions consolidated for all of the groups to respond to these questions. The outcomes of the demographic test have been offered below in Table 3.

Reliability analysis outcomes: For the internal regularity of the elements, each variable in the research

was investigated using the reliability data analysis of the approximated Cronbach's alpha. A pilot research analysis was run to measure the regularity between the items of the research constructs; it was based on the pilot outcome. All of the constructs had Cronbach's alpha values of 0.6 and larger, as referred above. The outcome of the pilot research below, in Table 4, has displayed all of the Cronbach's alpha values as being acceptable.

Furthermore, 35 items were utilised to measure the entire 6 constructs of the conceptual study model in the pilot research of the study instrument as displayed in Table 4.

This section links the independent variables and the dependent variable above to the practical instance. The section Variables were illuminated as the independent variables. After employing the Cronbach's alpha, the

analysis of the elements, ATB, SN, SI, FC, Co and Cu, was made.

The plurality of the respondents, who have various Internet skills, experiences and cultures offered positive view points. By the net result of every group, hypothesis H1 was set to be accepted and confirmed for the factor of Attitude. The relationship between the factor of Attitude and the citizens' intentions in the public decision-making was accepted as it was found to be positive with the Cronbach's alpha of 0.844. By the net result of every group, hypothesis H2 was set to be accepted and confirmed for the factor of Subjective Norms. The relationship between the factor Subjective Norms and the citizens' intentions in the public decision-making was accepted as it was positive with the Cronbach's alpha of 0.675. By the net result of every group, hypothesis H3 was set to be accepted and confirmed for the factor of Social Influence. The relationship between the factor of Social Influence and the citizens' intentions in the public decision-making was accepted as it was found to be positive with the Cronbach's alpha of 0.775. By the net result of every group, hypothesis H4 was set to be accepted and confirmed for the factor of Facilitating Conditions. The relationship between the factor of the citizens' intentions in the public-decision making and Facilitating Conditions was accepted. This relationship was examined to be positive in the Cronbach's alpha of 0.909. By the net result of every group, hypothesis H5 was set to be accepted and confirmed for the factor of Compatibility. The relationship between the factor of Compatibility and the citizens' intentions in the public decision-making was accepted as it was found to be positive with the Cronbach's alpha of 0.879. By the net result of every group, hypothesis H6 was set to be accepted and confirmed for the factor of Culture. The relationship between the factor of Culture and the citizens' intentions in the public decision-making was accepted as it was found to be positive with the Cronbach's alpha of 0.688.

This study made a mix between all the skills and the experiences of the players from the politician, IT professional, economist and Worker groups above to enhance the public decision-making by engaging the citizens' self-knowledge characteristics as the moderators. From the outcomes of the Cronbach's alpha test, the study defined the best factors from the six factors with good instruments by passing all of the items from the Cronbach's alpha test through all the instruments and attaining higher than 0.6 for the Cronbach's alpha values. The attitude factor had a positive effectiveness on the citizens' intentions to participate in the e-government, especially in public decision-making. The subjective norms factor had a definite impact on the citizens' intentions to participate in the public decision-making of the e-government. The social influence factor had a certain control that had an effect on the intentions of the citizens to participate in

the public decision-making. The facilitating conditions factor had unquestionable control on the behavioural intentions of the citizens through the availability of good conditions allowing the citizens to participate in the public decisions of the e-government. The compatibility factor of the events was related to the intentions of the citizens to participate in the public decision-making of the e-government. The culture factor was positively related to the cultural organisations of the different citizens' groups and their participation in the public decisions of the e-government. All of the outcomes of the factors were explained and strengthened the public decision-making in the e-government's success.

Moreover, all of the components can be examined by other analysis methods, such as, the analysis of the Kruskal Wallis technique, the relations amongst the factors through the Correlation analysis are tested to find the strength and, finally, examining the model by the analysis of the multiple regression method. For these analyses, selection of the seven Likert scale will offer the researcher to perform the analysis with a better option.

Discuss agreement of contrast with previously published work: The previously published work was to improve the model of decision-making in e-government that used the SCOT theory (Osmanet *al.*, 2017). The SCOT theory has positive factors to display the effectiveness and productiveness of the proposed model in developing the decision making, these factors affected on the decision making positively. To identify the citizens' intention of participation in public decision making in e-government which has not been studied in SCOT theory is a priority to give the view of the main players. Thus this study covers this factor by applying the TPB theory. employing the skills and knowledge of the citizens, like the Attitude Towards act or Behaviour (ATB), Subjective Norms (SN), Social Influence (SI), Facilitating Condition (FC), Compatibility (CO) and Culture (CU), which come from the citizens environment of the place where the citizen was born, as well as their beliefs, behaviours and history has a positive impact on the decision-making of the e-government. The relationship between the factors of the study model and the citizens' intentions in the decision-making was agreeable as it was set to be positive with the Cronbach's alpha more than the value 0.6 in the pilot study of this research.

CONCLUSION

The target of this study has been to provide proof regarding the instruments used to measure and find out the factors that influence the citizens' intentions to participate in the public decision-making of the E-government and the strength of these instruments. For this reason, the research purpose has been to enhance

the citizens' intentions towards participation in the public decisions to improve the decision-making model in the Iraqi electronic government. The purpose of the positive factors has been to display the effectiveness and productiveness of the proposed model in developing the decision-making; as such, the factors of this research have an impact on public decision-making, positively. This research explained the results of the strength of the study instruments. The factors in this study discussed in detail the significance of each factor with his items. These factors were created from several relevant citizens' groups that were related with E-government.

The study suggested for future research the following:

- How it takes good information from the public and determines the other citizens' characteristics.
- Involvement of different categories of citizens to determine the intentions towards their participation in the public decision-making of the e-government.
- The impact of citizens' participation in the e-government decisions on the public interest.

ACKNOWLEDGMENT

The author, Maky H. Abdulaheem, from Iraq, is a PhD student at UUM in Malaysia. I would like to thank the ministry of higher education in Iraq and the Karbala governorate in Iraq for supporting me in my PhD study. I would also like to thank University Utara in Malaysia.

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