Journal of Theoretical and Applied Information Technology
31st May 2019. Vol.97. No 10

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

E-PARTICIPATION ADOPTION OF GOVERNMENT SERVICES IN IRAQ A PILOT STUDY

[1]MUSTAFA A. A., [2] FAIZAL M.A. AND [3]AL-MANSOR BIN ABU SAID

[1, 2] Information and Communication Technology Department, University Technical Malaysia Melaka

[3] Faculty of Business, Multimedia University

E-mail: [1]mustafaalany88@gmail.com, [2]faizalabdollah@utem.edu.my, [3]almansor.abu.said@mmu.edu.my

ABSTRACT

The purpose of this study is to validate the reliability of the questionnaires items in order to make sure that items are ready to be utilized in the main survey of adopting an e-participation model for e-government in Iraq. Three main theories and models have been utilized in addition to three ICT related constructs for the formation of the new integrated e-participation model in Iraq, namely, the Diffusion of Innovation theory (DOI), the Technology Acceptance Model (TAM) and Uses and Gratification theory (U&G) in addition to three other ICT related variables namely, ICT Infrastructure, Security and Privacy. As a result of this pilot study, all variables items have shown acceptable values of Cronbach's alpha, namely, e-participation, perceived usefulness, perceived ease of use, relative advantages, compatibility, complexity, security, cognitive need, social need, except for three variables have shown excellent values including ICT infrastructure, privacy and affective need. This study contributes to the body literature of e-government adoption and to the technology adoption literature in Iraq.

Keywords: *Pilot Study, E-government, E-participation, Adoption, Information and Communication Technology, and Survey.*

1. INTRODUCTION

Out of many growing technologies, the technology of information and communication (ICT) is growing very fast. In this era of technology, now it is the time for the governments to utilize this technology in order to develop the e-government initiatives which will contributes to a faster and efficient delivery of information, transparency and global reach [1]. The utilization of the ICT technology affected the public sector in addition to the business sector by switching their transactions to the electronic form introducing the initiatives of the electronic government (E-government) [2].

E-government refers to the ICT utilization in order to effectively deliver the information and services of the government to the citizens, businesses as well as other agencies of the government [3,4]. E-government have numerous advantages including efficiency and service delivery improvement, government-citizen trust improvement, availability, reliability and cost reduction [5].

According to [5], the E-government of Iraq is not sufficient and need to be enhanced, modified, and functionally enlarged in order to benefit the citizens through adding active characteristics. Iraq is ranked 155 in the E-government development index (EGDI) and 140 in the E-participation index, thus more studies are required in this field to improve the e-government situation in Iraq.

This study is required due to the lack of studies in e-government associated with the developing countries in general, and Iraq in specific. Hence, the purpose of this study is to implement a pilot study (survey) of e-government participation by Iraqi citizens and also to validate the instruments (items) which will be utilized in the main survey in future.

The paper is organized as follows: the following section describes the theoretical framework of the study which is followed by the questionnaire of the study. Afterwards, the pilot study is presented which is in turn followed by the respond's profile and the reliability test of the

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

items. Finally the conclusion and future work is described at the end of the paper.

2. THEORETICAL FRAMEWORK

This study framework is adopted from the theory of Diffusion of Innovation (DOI) as a basis, and this theory is integrated with the Technology Acceptance Model (TAM) and the theory of Uses and Gratifications (U&G). There is a need to study the e-government adoption from all perspectives i.e. (Technological side (DOI), User acceptance side (TAM) and User needs side (U&G)). Moreover, all the selected theories and models are applicable to individual level and since this study is examining the individual's adoption, the chosen theories and variables are well suited to this study. Furthermore, as an example of integrated models, the study of [6] utilized the DOI theory and TAM model to investigate the adoption of e-government in Jordan. Another example of integrated model is the study of [7], the authors integrated a model by utilizing Trust models, DOI and TAM. Hence, this study integrates a model of three theories and models as mentioned earlier.

DOI theory was introduced by Rogers (1995). This theory is utilized for the users' technology adoption investigation, for instance "e-government" [8]. Rogers defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of social society". The diffusion of an innovation is depending on five constructs suggested by DOI: (1) Relative advantage, (2) Compatibility, (3) Complexity, (4) Trialability and (5) Observability (Rogers, 1995). Moreover, the diffusion of innovation theory plays an important role in this study as it attempts to explain how, why, and how quickly new ideas or technologies spread. So the framework of DOI of innovation-decision is suitable for the examination of the adoption process. All the mentioned constructs are utilized in this study except for Trialability and Observability as they don't affect the adoption in the case of Iraq.

Moreover, TAM's model was introduced by Davis (1986), the model of TAM is a significant and robust model explaining the technology acceptance behaviour [9]. This model hypothetically determines the users IT acceptance throughout the voluntarily intentions to use the technology. Intentions in turn are determined by two constructs: perceived ease of use (PEU) and perceived usefulness (PU). Davis defines PEU as "the degree to which the user expects the target system to be free of efforts" while the definition of PU is "the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context" [9]. Both variables are included within the integrated model.

Furthermore, the U&G theory was suggested by Katz (1973), based on psychological and sociological foundations [10]. This theory was utilized for the explanation of choosing a specific medium over another assuming that, "people's needs influence their media selections; by seeking out and using specific media, people can meet these individual needs" [11]. This theory was used to study the effect of interface of websites on e-commerce by [12], and also its utilized to study and understand the social media adoption by [13], so it's been applied to technology and Internet subjects before, but it is never been utilized to study the adoption of E-government in particular. This contribution suggest that users might adopt and e-participate in the applications and portals of E-government (as a medium) to satisfy their needs, whether they were getting a knowledge or completing a transaction on the government portal. Three constructs are utilized from this theory: (1) Cognitive need, (2) Affective need and (3) Social need.

3. METHODOLOGY

As regard with the methodology, a Positivist philosophy which is related to the determination of main links associated with a phenomenon (e-participation). This philosophy is linked with confirmatory research which in turn related to the confirmation of predefined factors relationships. Moreover, positivism is associated with quantitative approaches, for instance experiments, survey and questionnaires [14]. Hence, this study follows a positivist philosophy by utilizing a quantitative research throughout the distribution of a survey. The chart flow of the study methodology is shown in figure 1.

According to Creswell (2013), the pilot study is used in order to validate the reliability of the

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

questionnaire items, thus making sure the items are ready and suitable for the main survey [14].

Furthermore, the sample of the study was choose to be Iraqi citizens of Baghdad city, as it is the capital city of Iraq and have the highest population of 7,665,000 which represents 21% of the whole country population. 80 questionnaires were distributed to the chosen sample, over a time of two weeks. However 47 responses were received back as explained in pilot study section of this paper.

4. STUDY QUESTIONNAIRE

This study used a quantitative method by utilizing a survey, since surveys are a good way of examining factors as well as testing the study hypothesis [14]. The study have two (2) sections, the first one is the Background Information of the participants which include 5 questions, while the second section is associated with the integrated model factors. This section include 51 questions.

E-participation as the dependent variable have four (4) items in the questionnaire. Moreover, TAM have two variables and each one of them have four (4) items in the questionnaire. Moreover, DOI theory have three (3) variables and each one of them have five (5) items in the questionnaire. Furthermore, U&G theory have three (3) variables and each one of them have four (4) items in the questionnaire. Besides the items of theories and model, three more variables were added and integrated to the model namely, ICT Infrastructure, Privacy and Security. Each of these three added variables have four (4) items in the questionnaire. Table 1 shows the items utilized in this study.

Moreover reversed items methodology was utilized to detect if there is any bias in the answers of the survey.

TABLE 1: FACTORS AND ITEMS

Variable	Items	Reference
E-participation	4	[15]
Perceived Usefulness	4	[16]
Perceived Ease of Use	4	[16]
Relative advantage	5	[17]
Compatibility	5	[17]
Complexity	5	[17]
ICT infrastructure	4	[18,19]
Privacy	4	[20]
Security	4	[21]
Cognitive Need	4	[22]
Affective Need	4	[22]
Social Need	4	[23]

Furthermore, the data was found to be normal and checked for abnormality by utilizing the Skewness test, a significant value of Skewness should be within the range of (+/-1 to +/-2) (24). The Skewness of all items was determined by dividing Skewness Statistic on Std. Error, which is found to be statistically significant as shown in the table 2 below:

TABLE 2: SKEWNESS RESULTS

Variable	Skewness / Std. Error	Result
E-participation	.169 / .347	0.487
Perceived Usefulness	-.164 / .347	-0.472
Perceived Ease of Use	-.045 / .347	-0.129
Relative advantage	.239 / .347	0.688
Compatibility	-.004 / .347	-0.011
Complexity	-.116 / .347	-0.334
ICT infrastructure	.074 / .347	0.213
Privacy	.190 / .347	0.547
Security	.501 / .347	1.443
Cognitive Need	-.297 / .347	-0.855
Affective Need	-.059 / .347	-0.170
Social Need	-.028 / .347	-0.080

5. PILOT STUDY

The adoption of E-participation in the Iraqi culture is tested in this study. This purpose is to validate the questionnaire items for the major survey to come. So the question that this study answers is: Are the variables suited for the Iraqi culture? The pre-testing of the questionnaire is crucial as all errors must be indicated before the main survey is done [15]. These authors suggest that any questionnaire must be structured, repaired as well as tested. The major goal of the pre-testing process is for the reduction of bias and uncertainty, as well as to offer a high level of quality, reliability and validity. According to Creswell (2013), the validity score of the instrument provides a good translation of the data [14].

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

The pilot study goal is to improve the instrumentations of a particular study (14). Different recommendation were considered in conducting this pilot study including: (1) testing questionnaire and test wording, (2) testing items and questions sequencing, (3) gaining familiarity with respondents, (4) estimating response rate, (5) estimating questionnaire and test-completion time and (6) testing analysis procedures [16].

Pilot study tests the questionnaires using a smaller sample size, having said that, size of sample between 24 & 50 is recommended [17]. Following the stated guidelines, 80 questionnaires were personally distributed to participants over a period of two weeks. The returned back questionnaires are only 47, which is approximately 59% rate of response. SPSS version 23 was used to analyze the collected data for the determination of the scale reliability of the questionnaire.

6. RESPONDENTS' PROFILE

Data collection involved the data collection of five demographic factors, Gender, Age, Qualification, Current Employment Status, and Average Internet Usage. The purpose of using demographic factors is mainly to check the collected data validity. Table 4 presenting the demographic factor descriptive statistics for this study.

As showing in the table 4 and figures at the end of the paper, figure 2 shows the gender profile of the participants. Males represented the bigger portion over females, out of 47 collected responses, 30 of them were males which represents a percentage of 64% of all respondents. While females represented the smaller portion which is 17 out of 47 collected responses which contributes to 36% of the whole participants' gender profile.

Figure 3 shows the age profile of the participants. A participant's age group of 28 – 37 represented the biggest portion of the responses age profile, out of 47 collected responses, 18 of them were 28 – 37 group which contributes to 38% of the whole age profile. Moreover, the age group of 18 – 27 got the second biggest portion of the participant's profile. Out of total 47 responses, this group got 16 of them which contributes to 34% of the whole participants' age profile. Furthermore, the participant's age group of above 47 years represented the second biggest portion of the responses age profile, out of 47 collected responses, this age group got 7 of them which contributes to 15% of the whole participants' age profile. Finally, the smallest portion goes to the group of 38 – 47, out of 47 collected responses, this group got 6 of them, which contributes to 13% of the whole participants' age profile.

Figure 4 shows the qualification profile of the participants. This profile shows three segments of participants namely, Bachelor, Masters and PhD. The biggest portion of the participants were holding a Bachelor degree in which out of 47 collected responses, this group got 26 of them, which contributes to 55% of the whole participants' qualification profile. Moreover, the second biggest group of participants were holding Master degree in which out of 47 collected responses, this group got 20 of them, which contributes to 43% of the whole participants' qualification profile. Furthermore, the smallest portion goes to participants whom were holding a PhD degree in which out of 47 collected responses, this group got only 1 of them, which contributes to only 2% of the whole participants' qualification profile.

Figure 5 shows the current employment status of the participants. This profile shows that the biggest portion of participants were in the group of Employed/ self-employed in which out of 47 collected responses, this group got 26 of them, which contributes to 55% of the whole participants' current employment status profile. Moreover, the second biggest portion of participants were in the group of Student in which out of 47 collected responses, this group got 13 of them, which contributes to 28% of the whole participants' current employment status profile. Furthermore, the third biggest portion of participants were in the group of Pensioner in which out of 47 collected responses, this group got 7 of them, which contributes to 15% of the whole participants' current employment status profile. Finally, the smallest group were the group of unemployed in which out of 47 collected responses, this group got 1 of them, which contributes to only 2% of the whole participants' current employment status profile.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Figure 6 shows the average Internet usage of participants. In this profile, the biggest portion of participants were using the Internet 1 to 4 times/day in which this group got 18 response out of 47 collected responses, which contributes to 38% of the whole participants' average Internet usage profile. Moreover, the second biggest portion of participants were using the Internet 5 to 8 times/day in which this group got 15 responses out of 47 collected responses, which contributes to 32% of the whole participants' average Internet usage profile. Furthermore, the third biggest portion of participants is shared between two groups of participants namely, "more than 9 times/day" and "a few times a week" whereas each group of them got 4 responses out of 47 collected responses, which contributes to only 9% of the whole participants' average Internet usage profile each. Finally, the smallest portion of participants responds were also shared between two groups namely, "Once a week" and "Once a month", in which each of these groups got only 3 responses out of 47 collected responses, which contributes to only 6% each of the whole participants' average Internet usage profile.

7. RESULTS OF QUESTIONNAIRES RELIABILITY

The most common method for testing the questionnaire reliability of this pilot study is Cronbach's alpha [15,18,19]. The test of Cronbach's alpha have a range of values from 0 to 1, a higher range level indicates a greater reliability value (29,30). An excellent values of Cronbach's alpha are those ranging from 0.9 and above, an acceptable values are ranging from 0.7 to 0.899, while values ranging from 0.6 to 0.699 are questionable, and values less than 0.6 are considered poor values (28,29,31).

Moreover, the SPSS version 23 software was utilized to analyze the collected data in order to get the Cronbach's alpha values of the variables. As table 4 demonstrate, nine (9) variables have acceptable values, namely, e-participation, perceived usefulness, perceived ease of use, relative advantages, compatibility, complexity, security, cognitive need, social need, having values of 0.792, 0.756, 0.808, 0.742, 0.799, 0.730, 0.710, 0.723 and 0.897 respectively. Moreover, three (3) variables have excellent values, namely, ICT infrastructure, privacy and affective need, having values of 0.973, 0.942 and 0.946 respectively. Furthermore, all items of variables are found to be reliable and they are ready to be utilized for the main survey. Having mentioned that, this result is true for Iraq culture only.

8. VARIABLES RELATIONSHIP RESULTS

The correlations value ranges of +1 (perfect correlation) to −1 (perfect but negative correlation) with 0 denoting the absence of a relationship and the value of the dependent variable is generally one (32). The correlation results shows that Perceived Usefulness ($r = .329^*$, $p < 0.05$), Perceived Ease of Use ($r = .627^{**}$, $p < 0.01$), Relative Advantages ($r = .349^*$, $p < 0.05$), Information and Communication Infrastructure ($r = .517^{**}$, $p < 0.01$), Complexity ($r = .304^*$, $p < 0.05$), Compatibility ($r = .371^*$, $p < 0.05$), Privacy ($r = .779^{**}$, $p < 0.01$), Security ($r = .466^{**}$, $p < 0.01$), Cognitive Needs ($r = .381^{**}$, $p < 0.01$), Affective Needs ($r = .359^*$, $p < 0.05$), Social Needs ($r = .327^*$, $p < 0.05$) are positively and significantly associated with Electronic Participation (EP). These results supports that the adopted theories and models are positively and significantly associated with Electronic Participation (EP).

These results assures the existence of the relationships between E-participation in the e-government services and the chosen variables, hence, the results contribute to the body of knowledge and literature of ICT and e-government in general and in Iraq specially. Having mentioned that, this result is true for Iraq culture only.

9. CONCLUSION AND FUTURE WORK

This study has been conducted in order to overcome the problem of low e-participation in the services of Iraqi e-government. Three theories and models have been integrated i.e. the Diffusion of Innovation theory (DOI), the Technology Acceptance Model (TAM) and Uses and Gratification theory (U&G) in addition to three other ICT related variables namely, ICT Infrastructure, Security and Privacy to present a new conceptual model for e-participation in Iraq. All items of variables are shown to be reliable with acceptable and excellent values of Cronbach's alpha.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

The future work will be to utilize the result of this study by conducting the main survey to investigate the adoption of e-government services in Iraq. Moreover, as a limitation of this study, the sample was taking from only one city, which is Baghdad and it was 47 only as a pilot study, furthermore, the study results is applicable to the Iraqi culture and Similar developing countries cultures only.

ACKNOWLEDGEMENTS

This work has been supported under Universiti Teknikal Malysia Melaka research grant Gluar/CSM/2016/FTMK-CACT/100013. The authors would like to thank Universiti Teknikal Malaysia Melaka, CyberSecurity Malaysia and all members of INSFORNET research group for their incredible supports in this project.

REFERENCES:

[1] 1. Jasmi KA, Basiron B, Huda M, Maseleno A. Tactical Steps for E-Government Development TACTICAL STEPS FOR E-GOVERNMENT DEVELOPMENT. 2018;(June).
[2] 2. Al-kaabi R, Ebrahim B, Al-wejdany S, Mohammed J, Ali F. DEVELOPING A THEORETICAL MODEL FOR BAHRAINI CITIZEN ' S INTENTION TO ADOPT WEB 2 . 0 IN E- GOVERNMENT OF KINGDOM OF BAHRAIN . 2017;95(12):2866–77.
[3] 3. Alzahrani L, Al-Karaghouli W, Weerakkody V. Analysing the critical factors influencing trust in e-government adoption from citizens' perspective: A systematic review and a conceptual framework. Int Bus Rev. 2017;26(1):164–75.
[4] 4. Rose J, Persson JS, Heeager LT, Irani Z. Managing e-Government : value positions and relationships ¶. 2015;(September):531–71.
[5] 5. Nations U. E-GOVERNMENT SURVEY 2018. 2018.
[6] 6. Alomari M, Woods P, Sandhu K. Predictors for e-government adoption in Jordan. Inf Technol People [Internet]. 2012;25(2):207–34. Available from: http://www.emeraldinsight.com/doi/10.1108/09593841211232712
[7] 7. Lean OK, Zailani S, Ramayah T, Fernando Y. Factors influencing intention to use e-government services among citizens in Malaysia. Int J Inf Manage. Elsevier; 2009;29(6):458–75.
[8] 8. Rogers EM. Lessons for guidelines from the diffusion of innovations. Jt Comm J Qual Improv. Elsevier; 1995;21(7):324–8.
[9] 9. Davis F. Technology acceptance model. York Univ par. 1986;1.
[10] 10. Katz E, Blumler JG, Gurevitch M. Uses and gratifications research. public Opin Q. JSTOR; 1973;37(4):509–23.
[11] 11. Foregger SK. Uses and gratifications of Facebook. com. ProQuest; 2008.
[12] 12. Azam A. The effect of website interface features on e-commerce: an empirical investigation using the use and gratification theory. Int J Bus Inf Syst. Inderscience Publishers (IEL); 2015;19(2):205–23.
[13] 13. Zolkepli IA, Kamarulzaman Y. Exploring the Role of Perceived Media Needs and Technology Characteristics in Determining Social Media Adoption: Conceptual Framework. In: European Conference on Innovation and Entrepreneurship. Academic Conferences International Limited; 2011. p. 112.
[14] 14. CRESWELL JW. No Title. 2013.
[15] 15. Zheng Y. Explaining government performance on e-participation in New Jersey: Government capacity and willingness. Rutgers University-Graduate School-Newark; 2015.
[16] 16. Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Q. JSTOR; 1989;319–40.
[17] 17. Ntemana TJ, Olatokun W. Analyzing the Influence of Diffusion of Innovation Attributes on Lecturers' Attitude Towards Information and Communication Technologies. Hum Technol An Interdiscip J Humans ICT Environ. University of Jyväskylä, Agora Center; 2012;
[18] 18. Abu-Shanab E. Digital Government Adoption in Jordan: An Environmental Model. Int Arab J e-Technol. 2012;2(3):129–35.
[19] 19. ADELABU OA, ADU EO, Adjogri SJ. The availability and utilization of e-learning infrastructures for teaching and learning. In: EdMedia: World Conference on Educational Media and Technology. Association for the Advancement of Computing in Education (AACE); 2014.
[20] 20. Chellappa RK, Pavlou PA. Perceived

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

information security, financial liability and consumer trust in electronic commerce transactions. Logist Inf Manag. MCB UP Ltd; 2002;15(5/6):358–68.

[21] 21. Kim C, Mirusmonov M, Lee I. An empirical examination of factors influencing the intention to use mobile payment. Comput Human Behav. Elsevier; 2010;26(3):310–22.

[22] 22. Mondi M, Woods P, Rafi A. A'Uses and Gratification Expectancy Model'to predict students''Perceived e-Learning Experience'. J Educ Technol Soc. JSTOR; 2008;11(2).

[23] 23. Albesher A. Trust as a source of long-term adoption of e-government [Internet]. Brunel University London; 2016. Available from: https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.681208

[24] 24. Holmes WH, Rinaman WC. Describing the Distribution of a Quantitative Variable. In: Statistical Literacy for Clinical Practitioners. Springer; 2014. p. 87–125.

[25] 25. Sekaran U, Bougie R. Research methods for Business: A Skill Building Approach, A John Wiley & Sons, Ltd. Singapore; 2010.

[26] 26. Oppenheim AN. Questionnaire design, interviewing and attitude measurement. Bloomsbury Publishing; 2000.

[27] 27. Sim J, Lewis M. The size of a pilot study for a clinical trial should be calculated in relation to considerations of precision and efficiency. J Clin Epidemiol [Internet]. Elsevier Inc; 2011; Available from: http://dx.doi.org/10.1016/j.jclinepi.2011.07.011

[28] 28. Cronbach LJ. Response sets and test validity. Educ Psychol Meas. Sage Publications Sage CA: Los Angeles, CA; 1946;6(4):475–94.

[29] 29. Mohammed MA, Huda I, Maslinda MN. ELECTRONIC INFORMATION SHARING BETWEEN PUBLIC UNIVERSITIES AND MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH : A PILOT STUDY. 2015;77(2).

[30] 30. Mallery P, George D. SPSS for Windows step by step. Allyn & Bacon, Inc.; 2000.

[31] 31. Yang T-M, Maxwell TA. Information-sharing in public organizations: A literature review of interpersonal, intra-organizational and inter-organizational success factors. Gov Inf Q. Elsevier; 2011;28(2):164–75.

[32] 32. Adler J, Parmryd I. Quantifying colocalization by correlation: the Pearson correlation coefficient is superior to the Mander's overlap coefficient. Cytom Part A. Wiley Online Library; 2010;77(8):733–42.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

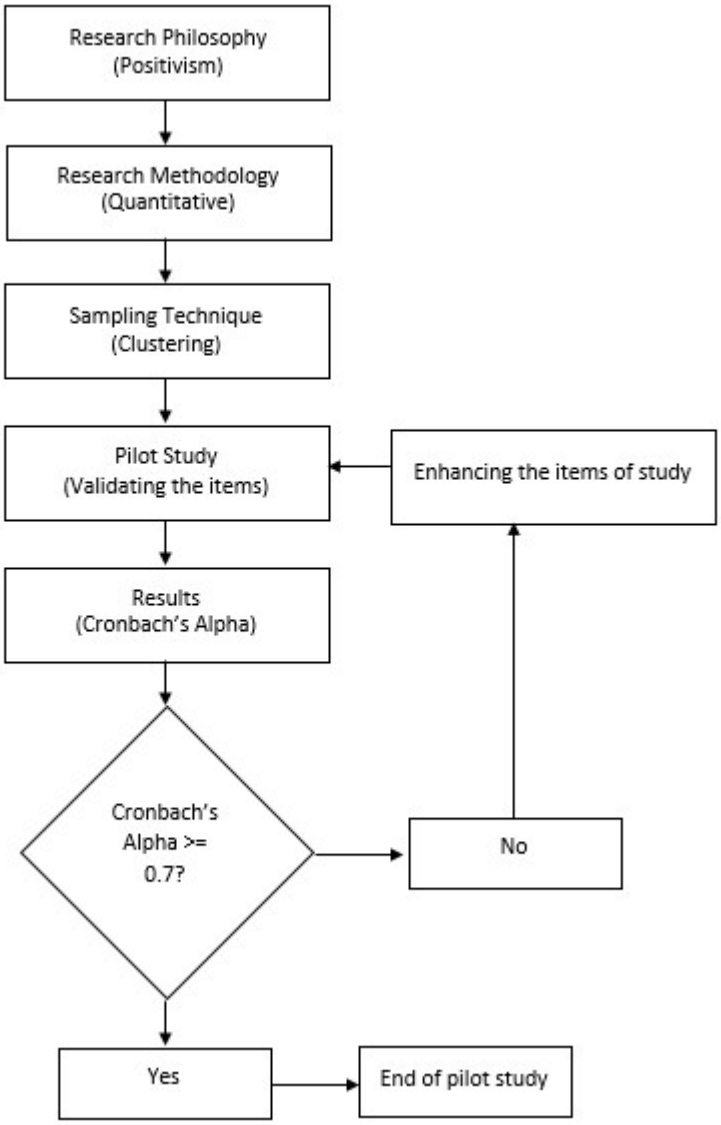

FIGURE 1: RESEARCH METHODOLOGY

.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

TABLE 3: RESPONDENTS' PROFILE.

	Questions	Frequency
Gender	Male	30
	Female	17
Age	18-27 years	16
	28-37 years	18
	38-47 years	6
	Above 47 years	7
Qualification	Bachelor	26
	Masters	20
	PhD	1
Current Employment Status	Student	13
	Employed/ self-employed	26
	Unemployed	1
	Pensioner	7
Average Internet Usage	More than 9 times/day	4
	5 to 8 times/day	15
	1 to 4 times/day	18
	A few times a week	4
	Once a week	3
	Once a month	3

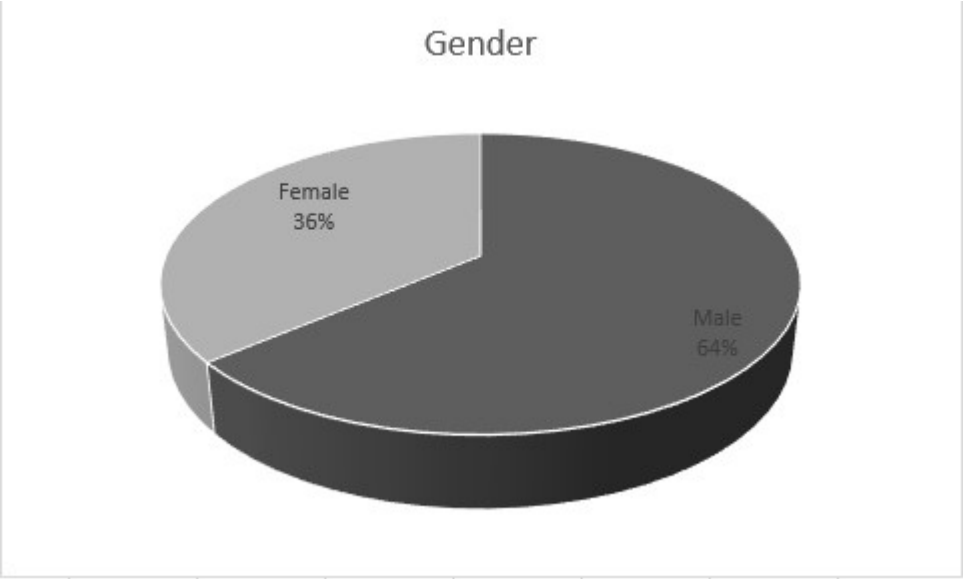

FIGURE 2: PARTICIPANTS' GENDER PROFILE.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

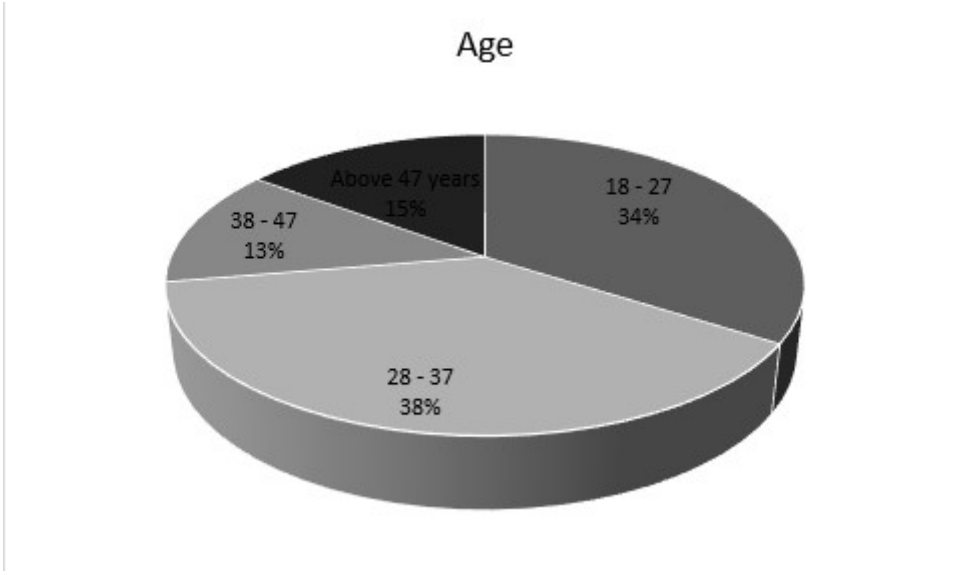

FIGURE 3: PARTICIPANTS' AGE PROFILE.

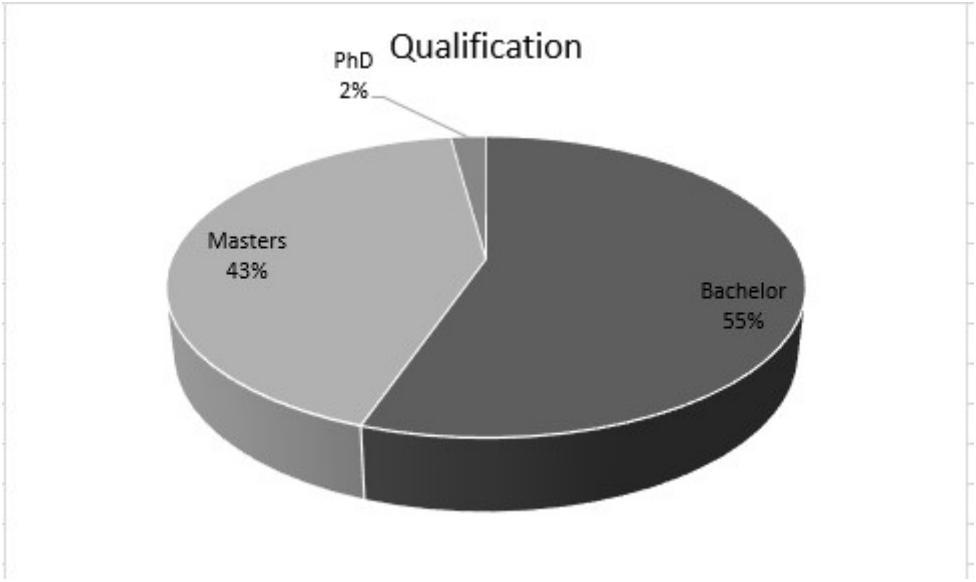

FIGURE 4: PARTICIPANTS' QUALIFICATION PROFILE.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

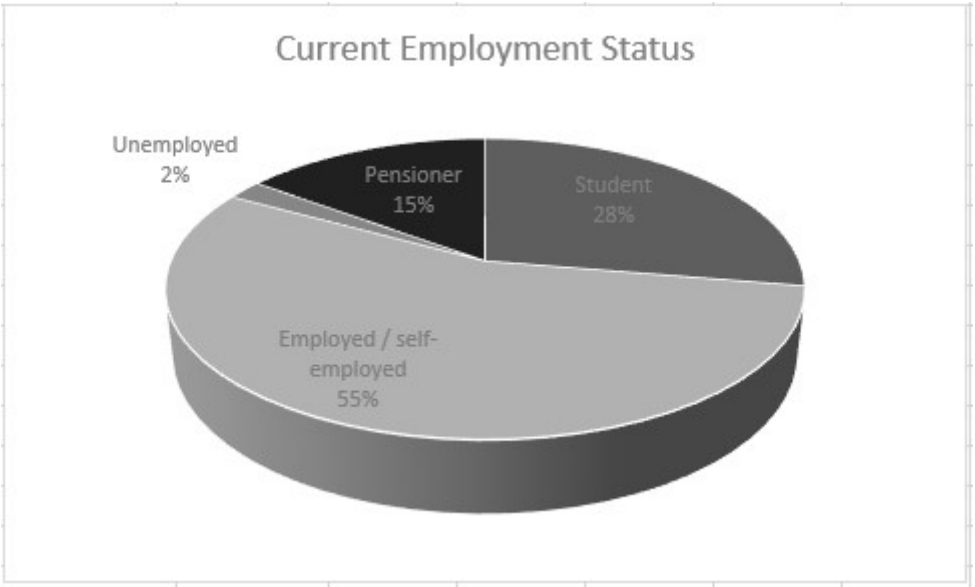

FIGURE 5: PARTICIPANTS' CURRENT EMPLOYMENT PROFILE.

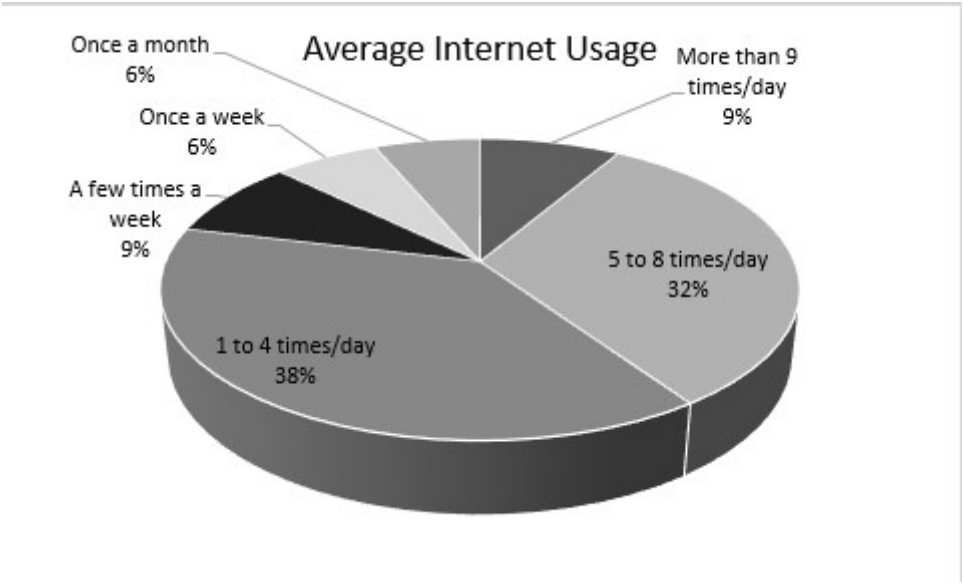

FIGURE 6: PARTICIPANTS' AVERAGE INTERNET USAGE PROFILE.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Table 4: Cronbach's alpha and number of items

Construct No.	Scale Name	Cronbach's Alpha	No. of Items
1	E-Participation	0.792	4-items
2	Perceived Usefulness	0.756	4-items
3	Perceived Ease of Use	0.808	4-items
4	Relative Advantage	0.742	5-items
5	Compatibility	0.799	5-items
6	Complexity	0.730	5-items
7	ICT infrastructure	0.973	4-items
8	Privacy	0.942	4-items
9	Security	0.710	4-items
10	Cognitive Need	0.723	4-items
11	Affective Need	0.946	4-items
12	Social Need	0.897	4-items

Appendix A: variables and Items

Variables	***Items***
E-Participation	E-Participation is more convenient than other ways of citizen participation.
	E-Participation helps to improve relationship between citizens and government.
	E-Participation is useful to increase citizen trust toward government.
	E-Participation can get more citizens involved than the traditional citizen participation.
Perceived Usefulness	E-participation makes it easier for me to use certain services.
	I find E-participation useful.
	E-participation enables me to accomplish tasks more quickly.
	E-participation improves my performance in certain tasks.
Perceived Ease of Use	Learning to use E-participation is easy for me.
	It is easy for me to become skillful in E-participation.
	I find E-participation easy to use.
	I find it easy to get E-participation to do what I want it to do.
Relative advantage	E-participation improve my efficiency when I use them.
	Mistakes with E-participation are easier to correct than manual ones.
	There are enough advantages of E-participation for me to consider using them.
	Mistakes are more likely to occur with E-participation usage than with manual operations.
	E-participation help me to better manage my time.
Compatibility and ICT use	I do not need E-participation.
	E-participation makes work redundant.
	It bothers me to use E-participation when I could do manually.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

	I worry about the privacy of my information when using E-participation.
	I worry that E-participation are not secure enough to protect my personal information.
Complexity and ICT use	E-participation are complicated to learn.
	E-participation are difficult to understand and use.
	E-participation are convenient to use.
	E-participation are confusing.
	E-participation is easy to use even if one has not used it before.
ICT infrastructure	Internet services provided by the government are adequate enough for e-participation.
	Internet services provided by the government are fast enough for e-participation.
	Internet services provided by the government are reliable.
	Lack of internet availability affects e-participation process.
Privacy	I am confident that I know all parties who collect the information I provide during an E-participation.
	I know what information I need to provide during an E-participation.
	I believe I can subsequently verify the information I provide during an E-participation.
	I believe that E-participation will not disclose my information without my consent.
Security	I perceive E-participation as secure.
	I perceive the information relating to E-participation as secure.
	The information I provided in E-participation is helpful for Government.
	I do not fear hacker invasions into E-participation.
Cognitive Need	E-participation sites help me to know many things about services.
	I use E-participation sites to search for new information.
	I visit E-participation sites to answer questions coming from friend/family.
	I use E-participation sites to explore information, beyond my normal task.
Affective Need	I like to talk to others about E-participation.
	I like showing my friends/family how to use technology in different ways.
	Computer-based layout, animation and illustrations are good to look at.
	I enjoy E-participating.
Social Need	People who are important to me think that I should e-participate in e-government sites.
	I would e-participate in e-government sites if my friends used them.
	E-participating with e-government over the web enhances a person's social status.
	People who e-participate within e-government to obtain services have more prestige than those who do not.