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Factors Influencing the Citizens' Acceptance of Electronic Government

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Abstract— *The research aimed to analyse the factors influencing citizens' acceptance of electronic government in Kurdistan region of Iraq. The researcher developed six research hypotheses. A quantitative method used in order to analyse this study in Kurdistan region of Iraq. The present study was confined to 256 units from Kurdish citizens were selected. A focus method sampling used to analyse this research by focusing on students' perceptions. The researcher used single regression analysis to investigate the technology acceptance model and its relationship with e-government in Kurdistan region of Iraq. It was found that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government. It was found that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, and finally, it was found that the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government.This thesis is expected to be interesting to the information systems consultants, experts and specialists who provide and study the factors influencing consumers' acceptance of electronic government services. Also, it could be interesting to academics and researchers who research on the factors that influence citizens' in implementing electronic government.*

Keywords— ***TAM; electronic government; citizens; acceptance of e-government; Kurdistan region of Iraq.***

I. INTRODUCTION

This research aims to analyse the factors influencing consumer's acceptance of electronic government. The term electronic government is defined as the employment of the Internet and the www technologies for distributing the services and information of the government to the business, employees and citizens, in order to enhance the effectiveness and efficiency of distribution of the service in the public sector (Singh & Sahu, 2021). The field includes delivery methods and approaches diverging from government services to employees, business, other governments and citizens. Electronic government is defined as the use of communication technologies and information in government in order to be able to offer public services in order to enhance administrative efficiency and effectiveness, also to endorse the value of democratic (Rasmi et al. 2018). Due to the fact is government serve multiple roles therefore electronic government has become widely defined. Throughout utilizing electronic government, the government is expecting to enhance the quality of service provided by the government and eliminate the costs of services distribution. Also, the purpose of electronic government is to enhance the use of scarce sources, improve transparency and accountability, develop the market and improve citizen's life and gain their faith and trust in government (Anwar & Abd Zebari, 2015). In many developed countries, governments give options to pursue public administration reforms, most of them are using information communication technology in order to offer electronic government services. Electronic government is the centerpiece of information systems-supported improvements to digitize the services distribution and the

development of governance taking place through all stages of government. Electronic government uses the Internet and the World Wide Web for both information distribution and services distribution (Anggara, 2018). In this research two factors discussed that will have impact on consumer's acceptance of electronic government. One of these factors perceived usefulness (PU), according to Davis (1989) perceived usefulness is the degree to which an individual believes that the term of technology, under exploration, will improve her/his efficiency or outcome, and perceived ease of use (PEOU) according to to Davis (1989) PEOU is the degree to which an individual believes that using a technology will be easy, clear and simple. The researcher used two independent variables (perceived usefulness and perceived ease of use) to measure the dependent variable which is Factors influencing consumers' acceptance. Kurdistan region of Iraq has huge economic abilities and which is flowing on a lake of oil and other minerals like sulphur, phosphate. Also, Kurdistan region of Iraq has huge capacities in the field of service trade particularly in tourism where civilization and geography diversity exist. The Kurdistan region of Iraq region has its local ruling within the federal State of Iraq where national privacy is been expressed by the Kurdish history and despite its historical attachment with the People of Iraq by multiple aspects, it is characterized by wide tourist and investment features, mainly the political stability which created a legislative and executive environment that helped a quick achievement of the economic and modern renaissance (Andavar & Ali, 2020).

II. THEORETICAL FRAMEWORK

E-Government

In many developed countries, governments give options to pursue public administration reforms, most of them are using ICT in order to offer electronic government services. Electronic government is the centerpiece of information systems-supported improvements to digitize the services distribution and the development of governance taking place through all stages of government. Electronic government uses the Internet and the World Wide Web for both information distribution and services distribution. Electronic government is defined as the use of communication technologies and information in government in order to be able to offer public services in order to enhance administrative efficiency and effectiveness, also to endorse the value of democratic (Dwivedi et al. 2020).

Due to the fact is government serve multiple roles therefore electronic government has become widely defined. Throughout utilizing electronic government, the government is expecting to enhance the quality of service provided by the government and eliminate the costs of services distribution. Also, the purpose of electronic government is to enhance the use of scarce sources, improve transparency and accountability, develop the market and improve citizen's life and gain their faith and trust in government (Anwar & Surarchith, 2015).

Electronic governments' goals differ from country to country. Generally, Electronic governments' goals are defined locally according to the political leadership of every government. Furthermore, key recognized stakeholders affect these electronic governments' goals among numerous countries. Moreover, every government should be able to support an international cooperation initiative in terms of electronic government, to be able to improve efficiency, accountability and transparency at all stages of government. For instance, those methods reintroduce governments in order to treat and deal their citizens as clients, also enhance daily administrative of monetary and financial systems (Aldosari et al. 2018). Several of these electronic government platforms are organizational fundamentals of economic growth and public sector improvements to address human expansion subjects in emerging countries (Mistry & Su, 2012). At the present time increasing more shared for governments in order to practice websites to enable visitors/ citizens in order to go online and attain any information needed, register vehicles, access records, communicate with agencies and government offices, voting and taxes (Demir et al. 2020).

Theory of the Technology Acceptance Model

The Technology Acceptance Model (TAM) is an information-theoretic model. It enables researchers to make statements about possible acceptance or rejection of a new technology by a designated user group. This theory and described as a consequent development – under the limitation of a technological scope – of the Theory of planned Behavior and the Theory of reasoned Action. This section describes the three fundamental theories and the dependencies among each other. It gives reasons for the selection of the Technology Acceptance Model for the research on contactless payment instruments, and how concepts of future payment instruments can benefit. With a growing demand for technology and the starting computerization, difficulties increase in system integration. As a consequence, the acceptance of specific technologies by their designated operators became a field of research to diminish the effects of possible rejection. Davis describes in his paper in 1989 that many studies fail to explain acceptance or rejection on scientific level Davis (1989). Therefore, he adjusted the Theory of planned Behavior by adding a technical scope, with the intention to give

recommended procedure for the search of acceptance of technical products. His aim is to identify and neutralize reasons of rejection for these technical items. A positive consequence, from an economic point of view, is the increased productivity and secured investment by appropriate adjustment (Rana et al. 2017).

Davis analyzes the process behind human reasonable action and developed a model of stimulus, organism and response in his doctoral thesis at the MIT Davis (1989). The following model in Figure 1 describes dependencies and points out the decision of actual use as a result of motivation and capabilities.

This model was refined in Venkatesh's and Davis' work and results in the Technology. The main idea behind the TAM is that two major factors influence the acceptance of technology and behavior towards this specific technology. The Perceived Usefulness (PU) and the 'Perceived Ease of Use' (PEOU) result in the Attitude toward using and lead to the factor of 'Behavioral Intention to Use (BI) (Hawash et al. 2021).

The BI and the dependency on the actual use of a system have already been known from the theories that the TAM is based on.

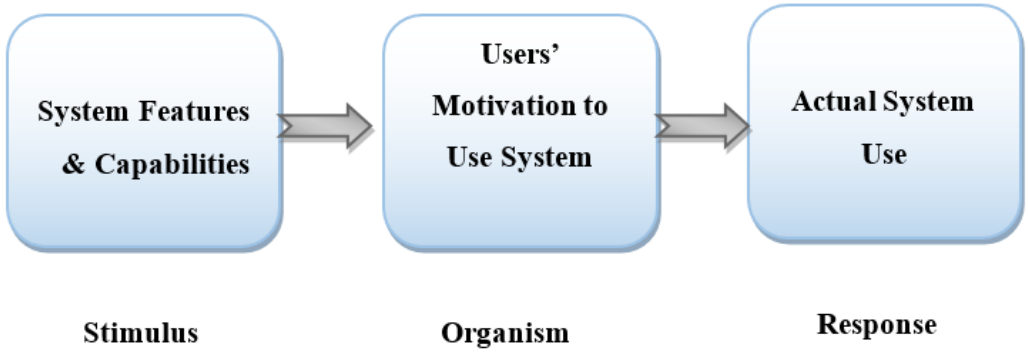


Fig.1: Stimulus – organism – response theory (Davis, 1989)

The new concept integrates the usefulness and the ease of use of a specific technology into acceptance dependencies, as to be seen from the diagram in Figure 2.

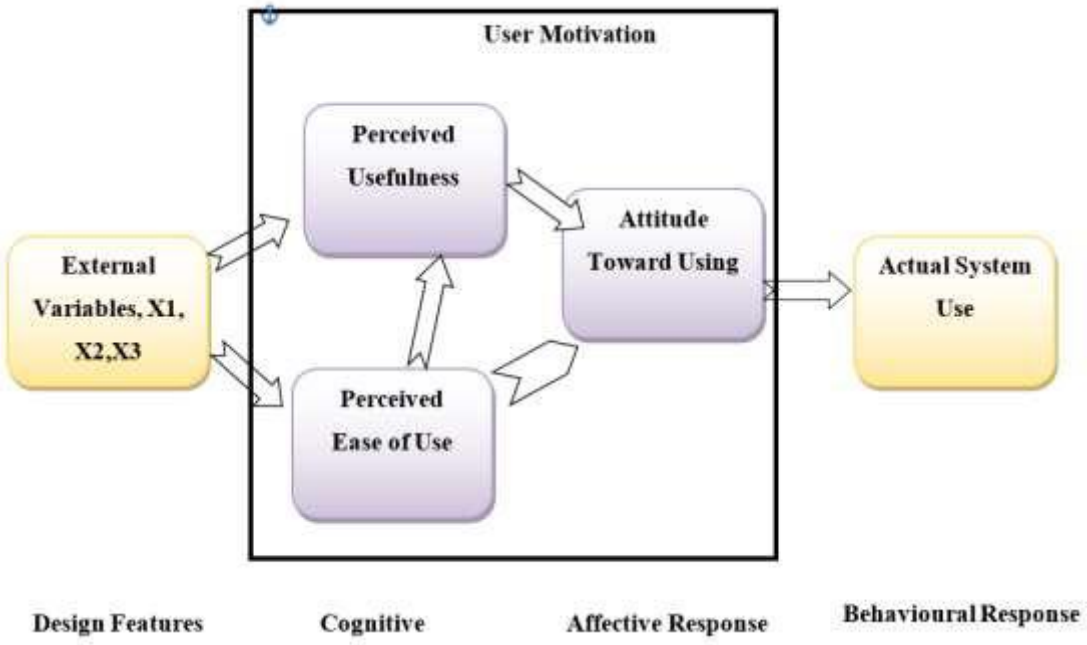


Fig.2: Technology Acceptance Model, response elements (Davis, 1989)

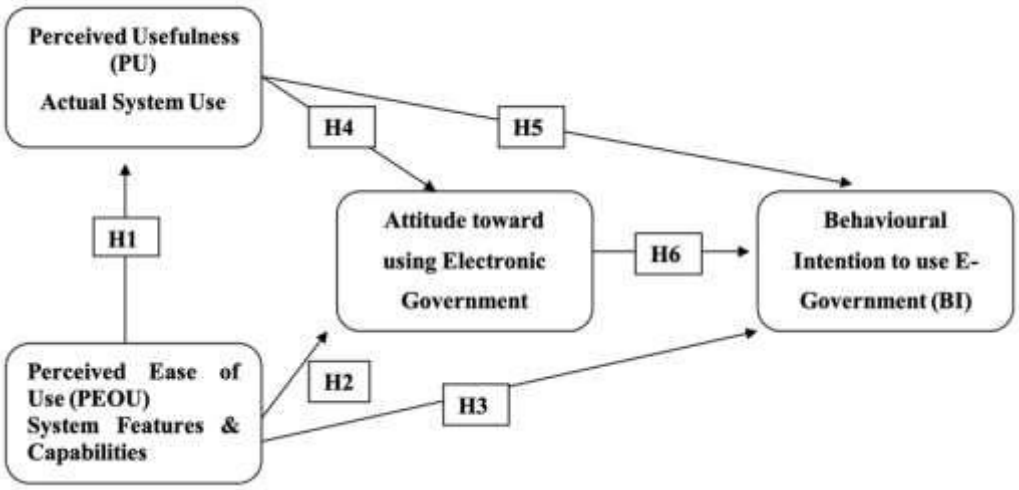
In Davis' thesis, the external variables were at the beginning drawn as X1, X2 and X3 (Fred, 1986); later he referred to them only as a set of ''design features''. In this thesis about contactless payment, the factor of design is of special interest, as it gives evidence of the dependency between system design and system use. The link between these two

parameters is the behavioral intention influenced by PU and PEOU, as there is no direct dependency. Davis states in his early work about design that since design features fall into the category of external variables (Isa, 2018). Davis refined his TAM by adding one more factor between the 'Attitude toward Using' and the 'Actual System Use', as to be seen from the model in Figure 2. This step is the 'Behavioral Intention to Use' (BI), a mixture of Ajzens factors of behavior and intention. This refined model was published in 1989.A major change from the model of 1989 to the one of 1996 is the exclusion of the element of attitude towards using, as this factor proved to have unexplainable direct influence from a system design perspective. Further, examples of the external variables were given in the new model by Venkatesh and Davis, such as "user training", "user participation in design" and the "implementation process" (Anwar, 2017). An open approach to external variables of the TAM results in a more detailed research to investigate the internals of this factor. A new and more defined model, named TAM II, has been developed (Kimathi et al. 2019). TAM II is an improvement of TAM: more detailed variables were added, the TAM as core model remains, however, untouched at the same time. The TAM II with its normative variables and dependencies (Krishnan et al. 2017).

III. METHODOLOGY

Quantitative method used to analyse this study; the researcher designed a questionnaire regarding factors influencing consumer acceptance of implementing electronic governance in Kurdistan region of Iraq. The random sampling method from Kurdish citizens been used. A random sampling method used by distributing questionnaires in some private universities' students in Kurdistan region of Iraq. The researcher distributed 270 questionnaires by hand, 256 questionnaires were received and being completed properly and 14 questionnaires were missing. The researcher used five different factors. In terms of the first research hypothesis the researcher used PEOU factor as an independent variable and PU as the dependent variable. In terms of second research hypothesis; the researcher used PEOU factor as independent variable and Attitude towards using electronic government (ATT) as dependent variable. In terms of third research hypothesis; the researcher used PEOU factor as independent variable and behavioural intention to use e-government (BI) as dependent variable. In terms of fourth research hypothesis; the researcher used PU factor as independent variable and Attitude towards using electronic government (ATT) as dependent variable. In terms of fifth research hypothesis; the researcher used PU factor as independent variable and behavioural intention to use e-government (BI) as dependent variable and in terms of sixth research hypothesis; the researcher used Attitude towards using electronic government (ATT) factor as independent variable and behavioural intention to use e-government (BI) as dependent variable. The survey was used to collect data by the form of a questionnaire related to participants' perceptions and opinions regarding to the factors influencing the citizens' acceptance of electronic government in the Kurdistan region of Iraq. The researcher distributed 270 questionnaires by hand, 256 questionnaires were received and being completed properly and 14 questionnaires were missing. A focus method sampling used to analyse this research by focusing on students' perceptions. 256 respondents involved in completing the questionnaire. The questionnaire consisted of two sections: First section consisted of demographic questions. Because each of respondents had different background concerning. The second section of questionnaire consisted of four factors: In the study, further of the information gathered from previous studies and searching literature, a questionnaire was conducted to find out the factors influencing the consumers' acceptance of electronic government in the Kurdistan region of Iraq. The survey was prepared by the researcher in the form of a questionnaire related to participants' perceptions and opinions regarding to the factors influencing the consumers' acceptance of electronic government in the Kurdistan region of Iraq. The questionnaire was validated from pervious researchers and adapted from **(**Ali, 2021) and (Davis , 1989).

The questionnaire consisted of four factors and each factor had different questions. The first factor was perceived usefulness which consisted of 11 questions, the second factor was perceived ease of use which consisted of 8 questions, the third factor was attitude towards using electronic government which consisted of 3 questions and the last factor was behavioural intention to use electronic government which consisted of 3 questions.



Research Hypotheses

According to the above research model, the researcher developed the following research hypothesis:

H1: Increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government.

H2: Increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government

H3: Increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government.

H4: Increases in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government.

H5: Increases in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government.

H6: Increases in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government.

The researcher used five-point likert scales ranging from (1) strongly disagree to (5) strongly agree. The researcher used reliability to test in order to find out whether all items used to analyse the current study are reliable or not. In terms of *Perceived Usefulness* factor, the Cronbach's Alpha = .829 for 11 items, since (.829<.6) therefore 11 questions of perceived usefulness were reliable. In terms of *Perceived Ease of Use* as independent factor, the Cronbach's Alpha = .872 for 8 items, since (.872<.6) therefore 8 questions of perceived ease of use were reliable. In terms of *Behavioural Intention to Use E-Government* factor, the Cronbach's Alpha = .862 for 3 items, since (.862<.6) therefore 3 questions of behavioural intention to use e-government were reliable, and in terms of *Attitudes* towards using e-government factor, the Cronbach's Alpha = .798 for 3 items, since (.798<.6) therefore 3 questions of Attitudes towards using e-government were reliable.

Table 1: Reliability statistics

Dimensions	Cronbach's Alpha	Number of items	References
Perceived usefulness (PU)	.829	11	Shroff et al., 2011
Perceived ease of use (PEOU)	.872	8	Shroff et al., 2011 & Davis, 1989
Behavioral intention to use e-government	.862	3	Shroff et al., 2011
Attitudes towards using e-government	.798	3	Shroff et al., 2011 & Davis, 1989
Total	.840	25	

The researcher used primary and secondary data in order to measure citizens' acceptance factor affecting implementation of e-government. In terms of primary data, the researcher referred to quantitative research method by

distributing questionnaire, and in terms of secondary data, the researcher used several books, academic articles, and university's library in order to gather information regarding to the factors affecting citizens' acceptance of e-government. The researcher distributed questionnaire randomly in Sulaymaniah city. The researcher distributed questionnaire in five private universities. Also, the researcher distributed the questionnaire to whom has enough knowledge and information regarding of e-government to make sure the validation and reliability of the responses.

IV. RESULTS AND DISCUSSION

Interrelated Factors

Table 2, shows the correlation analysis. According to the correlation analysis as it can be seen in the above table, the Pearson correlation between behavioural intention (BI) and perceived ease of use PEOU = .729 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived ease of use and behavioural intention. The Pearson correlation between behavioural intention (BI) and perceived usefulness PU = .673 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived usefulness and behavioural intention. The Pearson correlation between behavioural intention (BI) and attitude towards using e-government ATT = .821 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between attitude towards using e-government and behavioural intention. The Pearson correlation between perceived usefulness (PU) and perceived ease of use PEOU = .622 (Correlation is significant at the 0.01 level, 2-tailed); therefore, there is a strong positive correlation between perceived ease of use and perceived usefulness. Therefore, the researcher came to conclude that all factors are positively and significantly correlated.

Table 2: Correlation analysis

		BI	PEOU	PU	ATTITUDE
BI	Pearson Correlation	1	.729**	.673**	.821**
	Sig. (2-tailed)		.000	.000	.000
	N	256	256	256	256
PEOU	Pearson Correlation	.729**	1	.662**	.564**
	Sig. (2-tailed)	.000		.000	.000
	N	256	256	256	256
PU	Pearson Correlation	.673**	.662**	1	.412**
	Sig. (2-tailed)	.000	.000		.000
	N	256	256	256	256
ATTITUDE	Pearson Correlation	.821**	.564**	.412**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	256	256	256	256

**. Correlation is significant at the 0.01 level (2-tailed).

The Effect of the PEOU to the PU

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived ease of use (PEOU). The value of R square = .643, which indicates that 64% of the variables have been explained.

Table 3: The relationship between PU and PEOU

Dependent Variable: Perceived Ease of Use						
	B	**Std. Error**	**Beta**	**t**	**P**	**Decision**
(Constant)	.821	.151		5.423	.000	
PEOU	.797	.037	.803	21.465	.000	Supported
Model F	460.765					
R^2	.645					

P<0.05

Table 3, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 460.765>0.01 this means there is positive relationship between variables. The value of R^2 = .645 this means that 65% of the variables have been explained, and the value B for perceived ease of use PEOU = .797 (.797>0.01) which indicates that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government, accordingly the first research hypothesis was supported.

The Effect of the PEOU to the ATT

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived attitude towards using e-government (ATT).

Table 4: The relationship between PEOU and ATTITUDE

Dependent Variable: ATTITUDE						
	B	**Std. Error**	**Beta**	**T**	**P**	**Decision**
(Constant)	.879	.213		4.132	.000	
PEOU	.780	.054	.564	14.364	.000	Supported
Model F	206.313					
R^2	.564					

P<0.05

Table 4, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 206.313>0.01 this means there is positive relationship between variables. The value of R^2 = .564 this means that 56% of the variables have been explained, and the value B for perceived ease of use PEOU = .780 (.780>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government, accordingly the second research hypothesis was supported.

The Effect of the PEOU to the BI

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived behavioural intention towards using e-government (BI).

Table 5: The relationship between PEOU and BI

Dependent Variable: BI						
	B	**Std. Error**	**Beta**	**T**	**p**	**Decision**
(Constant)	.728	.140		5.211	.000	
PEOU	.799	.036	.729	22.415	.000	Supported
Model F	502.445					
R^2	.729					

P<0.05

Table 5, shows a single regression analysis. As seen the results of single regression analysis, the value of F= 502.44>0.01 this means there is positive relationship between variables. The value of R^2 = .729 this means that

73% of the variables have been explained, and the value B for perceived ease of use PEOU= .799 (.799>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, accordingly the third research hypothesis was supported.

The Effect of the PU to the ATT

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived attitude towards using e-government (ATT).

Table 6: The relationship between PU and ATTITUDE

Dependent Variable: ATTITUDE						
	B	**Std. Error**	**Beta**	**t**	**p**	**Decision**
(Constant)	.471	.174		2.703	.000	
PU	.907	.043	.800	21.236	.000	Supported
Model F	450.963					
R^2	.800[a]					

P<0.05

Table 5.12, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 450.963>0.01 this means there is positive relationship between variables. The value of R^2 = .800 this means that 80% of the variables have been explained, and the value B for perceived usefulness PU= .907 (.907>0.01) which indicates that in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government; accordingly, the fourth research hypothesis was supported.

The Effect of the PU to the BI

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived behavioural intention towards using e-government (BI).

Table 7: The relationship between PU and BI

Dependent Variable: BI						
	B	**Std. Error**	**Beta**	**T**	**P**	**Decision**
(Constant)	.766	.148		5.171	.000	
PU	.900	.036	.841	24.771	.000	Supported
Model F	613.620					
R^2	.841					

P<0.05

Table 7, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 613.620>0.01 this means there is positive relationship between variables. The value of R^2 = .841 this means that 84% of the variables have been explained, and the value B for perceived usefulness PU = .900 (.900>0.01) which indicates that in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government; accordingly, the fifth research hypothesis was supported.

The Effect of the ATT to the BI

The researcher used single regression analysis to investigate the relationship between perceived attitude towards using e-government (ATT) and perceived behavioural intention towards using e-government (BI).

Table 8: The relationship between Attitude and BI

	Dependent Variable: BI					
	B	**Std. Error**	**Beta**	**T**	**p**	**Decision**
(Constant)	1.289	.086		15.059	.000	
ATTITUDE	.651	.022	.821	30.223	.000	Supported
Model F	913.415					
R^2	.821					

P<0.05

Table 8, shows a single regression analysis. As seen the results of single regression analysis, the value of F = 913.415>0.01 this means there is positive relationship between variables. The value of R^2= .821 this means that 82% of the variables have been explained, and the value B for perceived attitude towards an electronic government ATT = .651 (.651>0.01) which indicates that in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government; accordingly, the sixth research hypothesis was supported.

V. DISCUSSION

Influencing factors towards the acceptance of implementing electronic government in the customer segment of Kurdistan region of Iraq could be identified. The impact of the factors could be measured by involving the Technology Acceptance Model of Venkatesh and Davis (1996). The consumer segment of online government system understands the benefits of the new process in its usefulness, and it is ease of use. These consumers should be targeted with online government systems campaigns to increase the level of understanding of the simplicity of the process as PEOU increases the PU additionally. Furthermore, the participation in a social online network is noticeably influencing the perceived usefulness and the understanding of the ease of use of the technology. These citizens need to be addressed via their preferred channels of communication. Followers in social online networks need to be attracted and their potential has to be used to develop a viral effect among other network participants. Incentives and bundles have to be offered to these specific citizens segment, as direct measure to increase the utilization and acceptance within the diffusion stage. Citizens will gain experience and communicate their perceived results via the network channels to other users of the same kind and these trusted sources have a positive impact on other users. The decision towards the acceptance of implementing electronic government in Kurdistan region of Iraq is dependent on its usefulness and the simplicity in the process, as the survey for this thesis proved. Moreover, the question is, if the belief in the institutions or stake holders involved is sufficient enough to use the technology. Technology is 'dumb' and reflects the ethical measures of its designers. Sunny et al. (2019), one of the pioneers in computation and later one of its greatest critics, developed his own point of view towards the interface of human being – machine. He describes the technological insights of computers out of his experience in working at the development of machines and programs. Anwar, (2016), simulates a dialog partner and answers in non-directive patterns via a computer chat. Weizenbaum was shocked how much personal information users disclosed to the computer program. More than 40 years after ELIZA was designed, he states: "[Computer] cannot understand, as they cannot establish a semantic connection to the world. Within a computer, everything is abstract, bits or electrons are rushing around but their meaning is unknown to the computer. The computer doesn't care. That is carrying things too far, as a computer cannot even care" (Abdullah et al. 2017). Consumer's care is the main difference between an online service and traditional services. The researcher used reliability to test in order to find out whether all items used to analyse the current study are reliable or not, in terms of perceived usefulness factor, the Cronbach's Alpha =.829 for 11 items, since (.829<.6) therefore 11 questions of perceived usefulness were reliable. In terms of Perceived ease of use as independent factor, the Cronbach's Alpha =.872 for 8 items, since (.872<.6) therefore 8 questions of Perceived ease of use were reliable. In terms of behavioural intention to use e-government factor, the Cronbach's Alpha =.862 for 3 items, since (.862<.6) therefore 3 questions of behavioural intention to use e-government were reliable, and in terms of Attitudes towards using e-government factor, the Cronbach's Alpha =.798 for 3 items, since (.798<.6) therefore 3 questions of Attitudes towards using e-government were reliable. As mentioned previously, single regression analysis used to analyse the current study. In terms of the second research hypothesis a single regression used, with PEOU as an independent variable and PU as the dependent variable as seen in the below figure. The

researcher analysed each factor separately, in terms of the correlation between perceived ease of use as independent factor and perceived usefulness as dependent factor. As seen in the above table According to the correlation analysis, the Pearson correlation between behavioural intention (BI) and perceived ease of use PEOU= .729 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived ease of use and behavioural intention. The Pearson correlation between behavioural intention (BI) and perceived usefulness PU = .673 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between perceived usefulness and behavioural intention. The Pearson correlation between behavioural intention (BI) and attitude towards using e-government ATT = .821 (Correlation is significant at the 0.01 level, 2-tailed), therefore there is a strong positive correlation between attitude towards using e-government and behavioural intention. The Pearson correlation between perceived usefulness (PU) and perceived ease of use PEOU = .622 (Correlation is significant at the 0.01 level, 2-tailed); therefore, there is a strong positive correlation between perceived ease of use and perceived usefulness. Therefore, the researcher came to conclude that all factors are positively and significantly correlated.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived ease of use (PEOU). The results of single regression analysis, the value of F= 460.765>0.01 this means there is positive relationship between variables. The value of R^2= .645 this means that 65% of the variables have been explained, and the value B for perceived ease of use PEOU = .797 (.797>0.01) which indicates that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government, accordingly the first research hypothesis was supported. Previous studies such as (Ali, 2021; Dwivedi et al. 2019, and Anwar & Balcioglu, 2016), supported my result, they found that increases in perceptions of ease of use an electronic government should lead to increased perceptions of usefulness in an electronic government. The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived attitude towards using e-government (ATT). The value B for perceived ease of use PEOU = .780 (.780>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government, accordingly the second research hypothesis was supported. Previous studies such as (Alryalat et al. 2017), supported my result, they found that increases in the perceived ease of use of an electronic government will lead to an increasingly positive attitude toward an electronic government.

The researcher used single regression analysis to investigate the relationship between perceived ease of use (PEOU) and perceived behavioural intention towards using e-government (BI). The value B for perceived ease of use PEOU = .799 (.799>0.01) which indicates that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government, accordingly the third research hypothesis was supported. Previous studies such as (Anwar, 2017), supported my result, they found that that increases in the perceived ease of use of an electronic government will lead to increases behavioural intention to use electronic government.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived attitude towards using e-government (ATT). The value B for perceived usefulness PU= .907 (.907>0.01) which indicates that in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government; accordingly, the fourth research hypothesis was supported. Previous studies such as (Weerakkody et al. 20170), supported my result, they found that the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government.

The researcher used single regression analysis to investigate the relationship between perceived usefulness (PU) and perceived behavioural intention towards using e-government (BI). The value B for perceived ease of use PU= .900 (.900>0.01) which indicates that in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government; accordingly, the fifth research hypothesis was supported. Previous studies such as (Razak et al. 2020), supported my result, they found that the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government.

The researcher used single regression analysis to investigate the relationship between perceived attitude towards using e-government (ATT) and perceived behavioural intention towards using e-government (BI). The value B for perceived attitude towards using e-government ATT = .651 (.651>0.01) which indicates that in the positive attitude toward an electronic government will lead to increases behavioural intention to use electronic government; accordingly, the sixth research hypothesis was supported. Previous studies such as (Hameed & Anwar, 2018), supported my result, they found that the positive attitude

toward an electronic government will lead to increases behavioural intention to use electronic government.

VI. CONCLUSION

Many developing countries have implemented e-Government applications to deliver services and information to the citizens through the Internet. As the population grows, several developing countries try to facilitate sophisticated web sites by providing many features to perform in better way to help citizens, other governments, businesses, and other web visitors. The researcher came to conclude that most of Iraqis' citizens had positive attitude toward using and implementing electronic government, the finding revealed that an increase in perceptions of ease of use an electronic government should lead to increase in the perceived usefulness of an electronic government will lead to an increasingly positive attitude toward an electronic government. Also, Iraqis' citizens found that ease to use an electronic government since most of them are currently familiar with ease of technology accordingly the finding revealed that an increase in perceptions of ease of use an electronic government should lead to increase in the perceived in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government, and finally the finding of this study revealed that increases in perceptions of ease of use an electronic government should lead to increase in the perceived in the perceived usefulness of an electronic government will lead to increases behavioural intention to use electronic government. One of the e-government challenges is how to create government capabilities to link it with local citizens. Government leaders should be able to recognize how to tie-together the whole network based on technologies and taking into consideration other businesses as well. Important information barriers might happen due to the lack of managerial knowledge and technological infrastructures. Managers and leaders in government should take into their consideration many aspects such us legal, political, organizational, policy, human capital factors and technological that are important to implement electronic governance. Transformations and electronic government initiatives are the most helpful and essential channel for public organizations and citizens. Implementing electronic government will enhance service to citizens; leads to better performance for both public and private sector organizations facilitate operations and enhancing their performance. It is very essential to understand and recognize the importance of successfully implementing electronic government project.

VII. FUTURE WORKS

The study focuses on factors influencing consumers' acceptance of implementing electronic governance in Kurdistan region of Iraq. There was a limitation to the current study that should be highlighted so as to avoid any over generalizations and misinterpretations of the results. Limitation was due to time concerns; the present study was confined to 256 units from Iraqi citizens were selected in Kurdistan region of Iraq. For future studies it is recommended to have bigger sample size in order to obtain more effective and efficient results. The main limitation of this research is sample size used. However, it is known that small samples are supportive for rich description in quantitative research; in this case it would be exciting to observe how the consequences extend to the broader. However, another limitation of this study was focusing on citizens with English knowledge and e-government knowledge.

REFERENCES

[1] Singh, M., & Sahu, G. P. (2021). Key Factors for Green IS Acceptance in Banking Segment: Pragmatic Analysis. *International Journal of Electronic Government Research (IJEGR)*, *17*(1), 48-67.

[2] Dwivedi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). *Government Information Quarterly*, *34*(2), 211-230.

[3] Rasmi, M., Alazzam, M. B., Alsmadi, M. K., Almarashdeh, I. A., Alkhasawneh, R. A., & Alsmadi, S. (2018). Healthcare professionals' acceptance Electronic Health Records system: Critical literature review (Jordan case study). *International Journal of Healthcare Management*.

[4] Anwar, G., & Abd Zebari, B. (2015). The Relationship between Employee Engagement and Corporate Social Responsibility: A Case Study of Car Dealership in Erbil, Kurdistan. *International Journal of Social Sciences & Educational Studies*, *2*(2), 45.

[5] Anggara, A. A. (2018). *Gambaran Masyarakat dalam Mengadopsi Model Layanan Electronic Government dengan Menggunakan Perspektif Technology Acceptance Model (Survei pada Pengguna Website Resmmi Pemerintah Kota Surabaya surabaya. go. id)* (Doctoral dissertation, Universitas Brawijaya).

[6] Andavar, V., & Ali, B. (2020). Rainwater for Water Scarcity Management: An Experience of Woldia University (Ethiopia). *ANDAVAR, V., ALI, BJ, & ALI, SA (2020). Rainwater for Water Scarcity Management: An Experience of Woldia University (Ethiopia). The Journal of Business Economics and Environmental Studies*, *10*(4), 29-34.

[7] Dwivedi, Y. K., Rana, N. P., Tamilmani, K., & Raman, R. (2020). A meta-analysis based modified unified theory of acceptance and use of technology (meta-UTAUT): a review

of emerging literature. *Current opinion in psychology*, *36*, 13-18.

[8] Anwar, G., & Surarchith, N. K. (2015). Factors Affecting Shoppers' Behavior in Erbil, Kurdistan–Iraq. *International Journal of Social Sciences & Educational Studies*, *1*(4), 10.

[9] Aldosari, B., Al-Mansour, S., Aldosari, H., & Alanazi, A. (2018). Assessment of factors influencing nurses acceptance of electronic medical record in a Saudi Arabia hospital. *Informatics in Medicine Unlocked*, *10*, 82-88.

[10] Demir, A., Maroof, L., Khan, N. U. S., & Ali, B. J. (2020). The role of E-service quality in shaping online meeting platforms: a case study from higher education sector. *Journal of Applied Research in Higher Education*, *1-28*

[11] Rana, N. P., Dwivedi, Y. K., Lal, B., Williams, M. D., & Clement, M. (2017). Citizens' adoption of an electronic government system: towards a unified view. *Information systems frontiers*, *19*(3), 549-568.

[12] Anwar, G., & Shukur, I. (2015). The Impact of Service Quality Dimensions on Students' Satisfaction. *International Journal of Social Sciences & Educational Studies*, 76.

[13] Hawash, B., Mokhtar, U. A., & Yusof, Z. M. (2021). Users' acceptance of an electronic record management system in the context of the oil and gas sector in Yemen: an application of ISSM-TAM. *International Journal of Management and Enterprise Development*, *20*(1), 75-98.

[14] Isa, M. A. M. (2018). Factors affecting consumers' acceptance towards electronic payment system: Case of a government land and district office. *Jurnal Intelek*, *13*(1), 1-8.

[15] Anwar, K. (2017). Analyzing the conceptual model of service quality and its relationship with guests'satisfaction: A STUDY OF HOTELS IN ERBIL. *The International Journal of Accounting and Business Society*, *25*(2), 1-16.

[16] Kimathi, F. A., Zhang, Y., & Hu, L. (2019). Citizens' Acceptance of E-Government Service: Examining E-Tax Filing and Payment System (ETFPS) in Tanzania. *African Journal of Library, Archives & Information Science*, *29*(1), 45-62.

[17] Ali, B. J. (2021). Assessing (The impact) of advertisement on customer decision making: Evidence from an educational institution. *Ali, BJ (2021). Assessing (The impact) of advertisement on customer decision making: Evidence from an educational institution. Afak for Science Journal*, *6*(01), 267-280.

[18] Krishnan, S., Teo, T. S., & Lymm, J. (2017). Determinants of electronic participation and electronic government maturity: Insights from cross-country data. *International Journal of Information Management*, *37*(4), 297-312.

[19] Sunny, S., Patrick, L., & Rob, L. (2019). Impact of cultural values on technology acceptance and technology readiness. *International Journal of Hospitality Management*, *77*, 89-96.

[20] Anwar, K. (2016). Comparison between cost leadership and differentiation strategy in agricultural businesses. *Custos E Agronegocio on Line*, *12*(2), 212-231.

[21] Abdullah, M. S., Toycan, M., & Anwar, K. (2017). The cost readiness of implementing e-learning. *CUSTOS E AGRONEGOCIO ON LINE*, *13*(2), 156-175.

[22] Ali, B. J. (2021). Impact of consumer animosity, boycott participation, boycott motivation, and product judgment on purchase readiness or aversion of Kurdish consumers in Iraq. *Journal of Consumer Affairs*.

[23] Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, *21*(3), 719-734.

[24] Anwar, K., & Balcioglu, H. (2016). The relationship between transformational leadership characteristics and effectiveness: A case study of construction companies in Erbil. *International Journal of Science Technology and Management*, *5*(2), 250-256.

[25] Alryalat, M. A. A., Rana, N. P., Sahu, G. P., Dwivedi, Y. K., & Tajvidi, M. (2017). Use of social media in citizen-centric electronic government services: A literature analysis. *International Journal of Electronic Government Research (IJEGR)*, *13*(3), 55-79.

[26] Anwar, K. (2017). The Role of Effective Leadership in Crisis Management: Study of Private Companies in Kurdistan. *Qalaai Zanist Scientific Journal*, *2*(4), 326-338.

[27] Weerakkody, V., Kapoor, K., Balta, M. E., Irani, Z., & Dwivedi, Y. K. (2017). Factors influencing user acceptance of public sector big open data. *Production planning & control*, *28*(11-12), 891-905.

[28] Razak, F. Z. A., Bakar, A. A., & Abdullah, W. S. W. (2020, May). E-filing users acceptance in Malaysia: Do government servant has enough technical proficiency?. In *Journal of Physics: Conference Series* (Vol. 1529, No. 5, p. 052089). IOP Publishing.

[29] Hameed, A. A., & Anwar, K. (2018). Analysing the Relationship between Intellectual Capital and Organizational Performance: A Study of Selected Private Banks in Kurdistan. *International Journal of Social Sciences & Educational Studies*, *4*(4), 39.

[30] Mensah, I. K. (2018). Citizens' Readiness to adopt and use e-government services in the city of Harbin, China. *International Journal of Public Administration*, *41*(4), 297-307.

[31] Anwar, K., & Ghafoor, C. (2017). Knowledge management and organizational performance: A study of private universities in Kurdistan. *International Journal of Social Sciences & Educational Studies*, *4*(2), 53.

[32] Anwar, K. (2017). Factors affecting stock exchange investment in Kurdistan. *The International Journal of Accounting and Business Society*, *25*(1), 32-37.

[33] Ajibade, P. (2018). Technology acceptance model limitations and criticisms: Exploring the practical applications and use in technology-related studies, mixed-method, and qualitative researches. *Library Philosophy & Practice*, *1941*.

[34] Isaac, O., Abdullah, Z., Ramayah, T., & Mutahar, A. M. (2017). Internet usage within government institutions in Yemen: An extended technology acceptance model (TAM)

with internet self-efficacy and performance impact. *Science International*, *29*(4), 737-747.

[35] Anwar, K., & Qadir, G. H. (2017). A Study of the Relationship between Work Engagement and Job Satisfaction in Private Companies in Kurdistan. *International Journal of Advanced Engineering, Management and Science*, *3*(12), 239944.

[36] Tamilmani, K., Rana, N. P., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, *57*, 102269.

[37] Alhashmi, S. F., Salloum, S. A., & Abdallah, S. (2019, October). Critical success factors for implementing artificial intelligence (AI) projects in Dubai Government United Arab Emirates (UAE) health sector: applying the extended technology acceptance model (TAM). In *International Conference on Advanced Intelligent Systems and Informatics* (pp. 393-405). Springer, Cham.

[38] Anwar, K. (2017). Leading Construction Project Teams: The Effectiveness of Transformational Leadership in Dynamic Work Environments in Kurdistan. *International Journal of Advanced Engineering, Management and Science*, *3*(10), 239925

[39] Vejačka, M. (2018). Acceptance of e-Government Services by Business Users: The Case of Slovakia. *Journal of Applied Economic Sciences (JAES)*, *13*(59), 1422-1430.

[40] Anwar, G., & Shukur, I. (2015). The Impact of Training and Development on Job Satisfaction: A Case Study of Private Banks in Erbil. *International Journal of Social Sciences & Educational Studies*, *2*(1), 65

[41] Ali, B. (2020). Impact of COVID-19 on Consumer Buying Behavior Toward Online Shopping in Iraq. *Ali, BJ (2020). Impact of COVID-19 on consumer buying behavior toward online shopping in Iraq. Economic Studies Journal*, *18*(42), 267-280

[42] Üstün, Ö. Z. E. N., Handan, Ç. A. M., & Pourmouso, H. (2017). Examination of The Factors Effective in The use of the e-government system with the technology acceptance model. *Journal of Social and Administrative Sciences*, *4*(3), 250-265.

[43] Anwar, G., & Shukur, I. (2015). Job satisfaction and employee turnover intention: A case study of private hospital in Erbil. *International Journal of Social Sciences & Educational Studies*, *2*(1), 73.

[44] Hossain, A., Quaresma, R., & Rahman, H. (2019). Investigating factors influencing the physicians' adoption of electronic health record (EHR) in healthcare system of Bangladesh: An empirical study. *International Journal of Information Management*, *44*, 76-87.

[45] Anwar, G., & Shukur, I. (2015). the impact of recruitment and selection on job satisfaction: Evidence from private school in Erbil. *International Journal of Social Sciences & Educational Studies*, *1*(3), 4-13.

[46] Shabrina, Z. W., Alamanda, D. T., & Prabowo, F. S. A. (2017). Investigating The Acceptance and Use of Performance Information System (SIP Bdg Juara) on Bandung City. *AFEBI Management and Business Review*, *2*(2), 72-91.

[47] Winarno, W. A., & Putra, H. S. (2020). Technology acceptance model of the Indonesian government financial reporting information systems. *International Journal of Public Sector Performance Management*, *6*(1), 68-84.

[48] Handayani, P. W., Hidayanto, A. N., Pinem, A. A., Hapsari, I. C., Sandhyaduhita, P. I., & Budi, I. (2017). Acceptance model of a hospital information system. *International journal of medical informatics*, *99*, 11-28.