

The Readiness of E-Government Adoption in Iraq: A Case Study of Al-Muthanna Province

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Abstract--- *The reinvention of the use of information communication technologies (ICT) and the government services have stimulated new government services. The purpose of this paper is to combine the social and technical aspects of the adoption of e-governance. Little work has been done on e-governance in Iraq and its cities. This study works to fill the gap in previous studies in this field. Data were collected through the work of a paper and electronic questionnaire and distributed to a selected sample in the province of Al-Muthanna where the factors and variables were selected based on the analysis of previous studies and benefit from their results in the design of the questionnaire. The data was then analyzed examined by using SPSS. Using linear regression and preamble, the results revealed significant direct effects of independent factors on the adoption of electronic participation, while intermediate correlation was supported as assumed. In general, the results of this research can help the Iraqi government to adopt the e-participation system, so that the government can perform e-participation processes efficiently and effectively. Future research trends are also given in the end.*

Keywords--- *E-governance, E-government, Iraqi E-government, ICT Applications.*

I. INTRODUCTION

The changes in the international geopolitical context and economic arising from "neo-liberalism" in the late 20th and early 21st centuries represent new distinct challenges for government around the world, and reformists have argued that There is no substitute for structural globalization and adjustment. So, Governments have to reshape their economies according to firm the principles of market and democratization of their political systems in accordance with hidden democratic traditions to increase their benefits from the globalization. [1] Argues that states that fail to implement these reforms will leave, exclude, or marginalize them from the advantages of globalization. Thus, they may also be excepted from political, social, and economic development [1, 2]. Highlights of new technologies have led the way to the rise of a new "e-government model" that focuses on coordination, external cooperation, and customer services, and it supports the government shifts that caused the transformation of the model. Presentation the age of networks of the governments, individuals, and organizations [3]. E-government is similarly referred to in different terms, for instance, e-government, e-governance, online governments, digital government, electronic government, and so on [4]. In fact, there are different definitions of the term e- government and complicate the necessary complexities in the methods of regulation. Shareef, (2011) described e-government as a technique for governments to use extra creative correspondence and information, especially online apps, to provide

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subjects and relationships with additional entree to the information of the government and institutions to improve the idea of organizations and provide more markable chances to participate in deployment-based institutions and strategies [5]. Furthermore, the declaration of “e-government”, as used in the OECD e-governance project, smears to the use of ICTs as a mechanical tool for gathering to satisfy a better government. In this way, e-governance is not depending on the old news, but it must pay attention on using ICTs to change structures, processes and, especially the manner of government’s life. The report of OECD states that e-governance is a vital part of the degree determined by public change because it fills as a means of preventing change; it stimulates enthusiasm to change open engagement; it includes internal surfaces; and affirms a sense of commitment with regard to the Society's stunning goals. The World Bank in 2001 depicts e- government as the connotation has warranted or worked on data frameworks and types of correspondence of progress that change relationships with the local population, the private sector and other working environments of the government to mobilize citizens and promote the development of benefits, support commitment, increase integrity, or redesign Government capacity [6]. Most of the current literature on e-government deals with it on a purely technical basis that is extremely interested in using ICTs in the public sector. While they overlooked the administrative aspect for changing management strategies and organizational change when implementing and planning e-government initiatives.

Generally, this research area presents many ideas from the mixed field of management and ICT in the literature of e-government, which helps researchers to work in government, government administrators and e- government experts well understand what the government is all about, particularly in economically weak countries such as Iraq. Therefore, the results of this study is a real electronic participation by citizens in the e-government taking into account the policy option recommended to the government, it contributes to the engagement of citizens with the services of e-government gradually from the collection of opinions in the form of a questionnaire to the final results. This proposed research helps to prepare the participation of citizens based on what they should behave in the community to transform services of e-government as an e-participant. The result helps the exist implementation challenges in terms of capacity, consultation, e-services, ICT infrastructure, citizen participation and online services in this technological world, in order to comply with the requirements of new electronic services towards empowering people in civil society, government institutions and other institutions.

II. BACKGROUND

As explained in the previous section, researchers stated that governments must reshape their economy according to the principles of strict market. They suggested also that the governments essential to democratize political systems in democratic traditions as a seal to capitalize on their advantages from globalization. [1] He says that countries that fail to make these improvements will be left behind and omitted from the advantages. [7] He said that the stereotypes of those governments were still very restricted by bureaucratic roles. These roles have limited the role of governments in the ability to change old-style systems in various industrial areas and, unlike the use of advanced technologies or the application of new business models [8]. The emergence of a knowledge-based economy can be considered as a tool to improve services. Also, the trends include making use of foreign knowledge to design the basics as well as creating and adapting knowledge to meet their specific needs [9]. The adoption of

these trends can help create great chances and intimidate governments around the world making them respond in several ways [10]. So, the results of the responses the late 1980s and early 1990s saw the rise of new terms "public sector transformation" and "reinventing government". The potential of e-governance to improve that the citizens' lives is clearly agreed through the provision of e-services that clearly increase transparency [11]. However [12] recommend a method to claim international financing from organizations around the world so that the applications of e-government are possible, on the other hand [13] argues the complications and problems that can be encountered when applying the applications of e-government.

According to Robertson and Vatrapo (2010), there are many barriers that maintain the effective implementation of e-governance in spite of the proposed advantages for all residents, government offices, private institutions, and where governments cannot purchase a built-in programming program [14]. Despite tremendous progress in improving e-government in the last decade, many countries around the world faced problems in achieving e-government frameworks, most of which remained in early use [15]. In 2012, Krishnan and Thibau carried out an examination of the application of e-government in several countries. The results were shocking, with a total failure rate of 35%, while almost 50% partially failed. The success rate was only about 15% [16]. As for the application of e-government in the Arab countries [17] stated, "Based on our knowledge and interaction with e-government initiatives in the Arab world, we tend to argue that the majority of e-government in Arab countries fail and are stuck in the Access phase of Forrester's maturity model". The other advanced Arab countries in e-government are still in the early steps of interaction. "Forrester's maturity model" depicts three stages to assess the transformation of e-government: the era of access, the era of interaction, and the era of integration.

III. THE SPECIFICATIONS OF IRAQ

In this section, the authors refer to statistics and information in the form of a brief overview of Iraq in general as the province of Muthanna is part of Iraq. Some information is presented on the demographic composition and the impact of political, economic, and cultural factors on Iraq in general. Studies conducted indicate that Iraq suffers from a high rate of ignorance among its people who do not know how to read or write because of the wars and the bad political situation that the country has experienced recently, which may negatively affect the adoption of the e-government [18]. The official languages in Iraq are Arabic and then Kurdish, while English is well understood among the middle and upper class with certificates and learners [19].

IV. CULTURE

Horizontal interaction takes place not only between man and his socio-cultural and natural environments, but also the vertical interaction between man, his history, and the history of his people. There is also a constant interaction between the horizontal dimension and the vertical dimension of man [20].

Human behavior towards others is determined not by the personality of the various dimensions of the permanent interaction, but also by external engines that change weakness or strength and the human response to them in some way. The Iraqi cultural scene needs to draw a roadmap, as well as real strategies. In the entire developed world, there is something called cultural development [21]. The plans are all real and formal. Iraq suffers from a severe

crisis of scarcity of inventions, scarcity of scientific research and weak manufacturing industries, not to mention the deterioration of the security situation and the collapse of infrastructure. The deteriorating security situation in Iraq has led to the flight of researchers abroad, the absence of foreign direct investment that could be used to transfer technology and the low employment opportunities and the deterioration of production and consumption in all sectors [22]. This crisis directly affected the technological level of the country, which is no longer much different from the less developed countries in the world. It is necessary to know the degree of this underdevelopment to stand at the seriousness of the crisis in order to contribute to address it. Therefore, e-government is considered a modern application to enter Iraq if it is adopted. Despite the rapid adaptability of Iraqi society and the practice of technology significantly, there are still some obstacles and difficulties that negatively affect the application of this idea [19].

V. TECHNOLOGICAL ENVIRONMENT

Technological and scientific knowledge has progressed and expanded at an increasing frequency since 1990. Because of its economic and political variability, Iraq has been not capable and difficult to move on the way to building a robust ICT substructure. The Internet setup and use in Iraq was very little, but it has been growing little by little. The telecommunications sector is somewhat backward in both wired and wireless types [23]. Iraq made significant technological advances, particularly in the sector of mobile telecommunications, with the work of GSMs' networks. Nonetheless, the ongoing war has caused its losses and the infrastructure also has been severely damaged, for instance 12 of Baghdad's 14 stock exchanges have been damaged, Affect about half the phone lines. Despite the installation of 280 thousand phone lines 50 thousand ADSL lines in addition to WIMAX 4G service. Some of these services have already been implemented in some Iraqi ministries such as the Iraqi Ministry of Interior.

VI. DESIGNING E-GOVERNANCE FOR IRAQ

Prior to 2003 There is no real IT development policy in Iraq. Access to information is both a privilege, a challenge, and a threat. In light of these many concerns about security in Iraq only the Iraqi Center for Computer and Technology (NCC), affiliated to the "Iraqi Ministry of Planning" (IMP) and in cooperation with the "Iraqi Intelligence Agency" to maintain a firm grip on the management of technology matters throughout the country. In 2003, serious steps were taken to strengthen these services. The Ministry of Planning was reorganized and the "Central Organization for Statistics and Information Technology" (COSIT) was established to supervising the implementation of ICT in the public sector. The following targets for e-government initiatives have been set by Gol. Upon full implementation, e-government will be guaranteed:

- Improved governance, accountability, and transparency;
- Build long-lost citizen confidence in Iraq;
- Strengthening the business sector;
- Improving to government services' access;
- Improving services of customer-centric (citizen + business + government + visitors);
- Strengthen enterprises and ease learning / knowledge at all stages.

Human resources development was also established and attracted some of interest as well. Four testing and

training centers were established in cooperation with ICDL in Baghdad, Basra, Sulaimaniyah and Karbala as part of the program to rebuild Iraq and develop its energies. There are several private sector companies that have recently emerged working together with government institutions to train employees and public sector workers. Among these initiatives was the initiative of the Ministry of Technology and Communications to train programmers to work on the establishment of open source technology programs.

E-governance creativities are dispersed and there is not any complete central policy to reach the goals. Many of the ministries and genes and want to develop their systems and have their own applications, it is noted that there are not enough initiatives to solve the problems mentioned or even to improve the services provided at the very least. The next section proposes a method of work on which to deal with the problem of e-government and collect the necessary studies for the purpose of analysis and discover the extent to which citizens accept an initiative of this kind.

VII. DESIGNING CONCEPTUAL FRAMEWORK FOR E-GOVERNMENT FOR IRAQ

In general, we can classify the term e-government into two categories. The first category represents all services provided by the government to citizens and includes bills and government and digital transactions. In addition to some services that cross the technical infrastructure, but at the advanced level, providing both functions completely different applications. Administrative support may require for example administrative information for middle and senior administration within government organizations / ministries and others that may be even irrelevant or confidential to citizens. While the second category is the applications to improve the interaction between the citizen and the government and in the association, in turn need applications that warrant the distribution of information from the administration to the community for electronic example electoral list or communicating applications that allow citizens to tax revenues file or pay water and electricity bills, and others. Therefore, we will draw the main points to focus on in the creation of the questionnaire. These points will help to draw the factors that will be used in this questionnaire. The importance of geographical distribution in the adoption of the selected sample was a major reason for selecting "information sharing" and "information quality" as basic factors of this questionnaire. The importance of technology in all previous research and its assistance in achieving better results was a clear reason for choosing "technology" as one of the factors influencing this questionnaire. The use of technology requires technical infrastructure to support the use of technology, so we have used "ICT infrastructure". In addition, there are some factors that are in terms of citizens and directly affect the implementation of E-governance in Al-muthanna. Like "Citizen Trust in governance" and "Satisfaction with e-governance". All of these factors lead to the use of "e-participation" and thus put a set of questions about each worker and collect answers questionnaire for the purpose of analysis and discussion later. Figure 1 illustrates the proposed framework in order to analyzing the possibility of adopting E-governance in Al-Muthanna province.

Sharing information, quality information and satisfaction about e-government, governance, transparency, ICT infrastructure, citizen confidence in government and technology have a major influence on implementation of E-governance in Al-muthanna province.

Participation is required for each activity across multiple areas including politics, economics, education, health

planning and more. Participation has multiple dimensions and is constantly changing because of the continuous evolution of technology. The rapid development of ICTs, especially Internet technologies and mobile phones, has not revolutionized the way business is conducted, but has also transformed the public service delivery mechanism offered by the government. The introduction of new technologies can lead to changes in the skill sets required of staff. Thus, the skills set available to staff is an important factor limiting the introduction of new technologies.

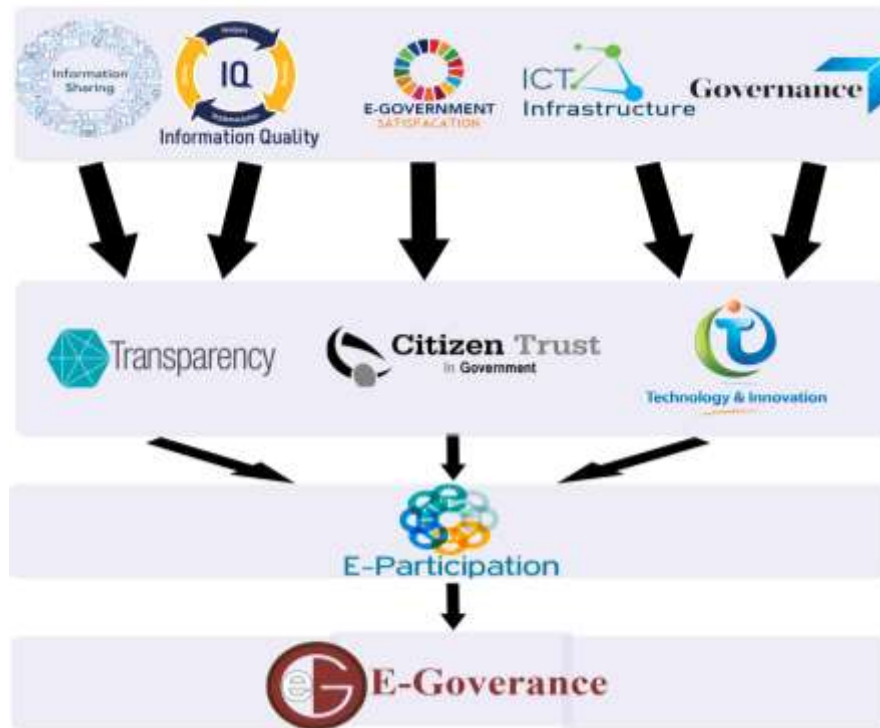


Figure 1: E-Government Conceptual Framework

Organizations using trained and experienced staff tend to earn lower training and equipment costs when there are new innovations. In particular, for old industries undergoing a new wave of modernization, the relationship to quality of work and new technology becomes very important. Research has shown that without top management support, innovation is unlikely to be accepted. Provision from senior administration has been shown to play an important role in the acceptance and implementation of the info systems in general and inter- organizational info systems in specific.

VIII. SERVICES TO CITIZENS

Will access to these services by citizens mainly directly through the Internet from office, home, Internet cafe or government provided center while some can be accessed through mediation by the operator or the authorized users. For many applications it can be good in this regard, for instance provide models in electronic form, information on government regulations, rules, policies, laws and interactive services such as paying water and electricity bills, registration of children in school (both sectors of education and public utilities in Iraq owned by the government). It should be established in this regard that one access point and one station should be provided to the

citizen to be able access all available e-services from the government portal. The proposed portal in the use of UML is shown in Figure 1. The e-government portal should be easy to use by all categories of citizens at all levels of education and social in addition to include all the important services provided by the government, whether in the city of Al-Muthanna specifically or throughout Iraq in general. The main and important parts of building e-government are reviewed. These parts are the basic building blocks that should not be confined to the system, but they are essential that they can be modified and added as needed.

The system begins by reviewing the most important information sharing, accuracy, e-government requirements, and technology infrastructure. All these factors directly affect the probability of applying and adopting the e-governance system in Iraq in general and specifically Al Muthanna. As shown in Figure 1, some factors lead to other factors, as is the confidence of citizens in the government, which is one of the most critical and sensitive points that can succeed or fail the project at the same time. In the end, the collection of these factors and steps leads to the basic part and the key is electronic participation, including all aspects of service in the sectors of health, education, work, and politics, which represents e-government in all its branches.

IX. METHODOLOGY

It is not possible to discover the success of any work until it has been evaluated. Basic information was collected through previous research and accordingly two effective methods were conducted for this purpose. The first method was by conducting personal interviews with some people and asking them to collect and analyze their data. Data were collected and analyzed to measure and demonstrate the ability of the Al-Muthanna Governorate to adopt the e-government project as a small part of Iraq and as a preliminary sample may open the way to identify the e-government project in Iraq as a whole.

Therefore, several factors have been measured and tested that directly affect the ability of the city to adopt the e-government project, such as: technology infrastructure, citizen confidence in the government, the ability to collect accurate information, transparency, and electronic participation. This method was chosen because it contains complete and clear phases required to develop like this model. Whereas seeing all possible difficulties, this method leads scholars through the different stages of the study till they produce the required conceptual model. This methodology stages contain several phases in determining factors, sampling, and tools. The reliability and validity of the tool, data collection, and empirical study have been addressed. Analyze and discuss Analyze data from data collected using the SPSS statistical application and experimental results and discuss them.

X. THE RESULTS AND CONCLUSION

With most developing countries that lead the initiative of different e-Government hoping to achieve a level of advanced e-participation and improve communal management by increasing suitability, accessibility and performance of different services government to the people, it is contended that the achievement of these efforts depends not only on the support of government, but also on people's readiness to accept and adopt the e-participation that price. This study examines the factors that affect the use of e-governance services in developing countries by using Al-muthanna province in Iraq as an example. SPSS was used to analysis the data. SPSS is the

acronym of Statistical Package for the Social Science. SPSS is a widely used statistical application especially among researchers. It is a set of lists and tools through which data can be entered and then analyzed (statistical analysis), and the statistical system Spss based on digital information, the program is characterized by its great ability to process the data that is supplied, and can be used in all scientific research methods on Different degrees of complexity.

Finally, the introduction of this technology is successful but needs more work to be achieved at the required image because it requires the approval of a diverse group of persons and relates to sensitive electronic participation, as well as the various relevant topics that affect, including social, legal and technical concerns. In addition, electronic participation can contribute to the development of the whole country to an advanced level of development that may affect other characteristics of people's lives.

The correlation coefficient is one of the most important and frequently used measures to demonstrate the correlation of two variables. Where there is a specific range represents the amount of correlation between variables and ranges from (-1, +1). The value resulting from this measure represents the correlation ratio. If, for example, it is less than -1, this indicates that the two variables are completely distant from each other and are not completely correlated. However, if the value is greater than + 1, this indicates a close correlation between the two variables. [24]. Therefore, it is a statistical coefficient It is used to find out how much correlation and compatibility between two variables. Based on the result, the right decision can be made in that study. [25].

The table 1 exposes the association between the dependent variables and independent variables used in this study. The value range of correlations between (-1,+1) and the value of the dependent variable are normally one, whilst the volume of the correlation (+1) refers to negative linear relationship and (-1) effortlessly negative linear association, 0: no relationship. The results of correlation from Table 1 displayed that Information sharing ($r = .181^{**}$, $p < 0.01$), Information quality ($r = .139^{**}$, $p < 0.01$), Satisfaction with e-government ($r = .242^{**}$, $p < 0.01$), ICT infrastructure ($r = .156^{**}$, $p < 0.01$), Governance ($r = .145^{**}$, $p < 0.01$), Transparency ($r = .227^{**}$, $p < 0.01$), Citizen trust in government ($r = .190^{**}$, $p < 0.01$), Technology ($r = .281^{**}$, $p < 0.01$), were significantly and definitely associated with dependent variable (E-Participation).

Table 1: Descriptive Statistics and Correlations Analysis

	Mean	Std. Deviation	IS	IQ	TRP	SEG	CTG	ICT	GOV	TECH	EP
IS	3.8056	.62991	1								
IQ	3.5115	.88902	.106*	1							
TRP	3.3404	.77352	.399**	.118*	1						
SEG	3.2897	1.10314	-.006	-.009	-.020	1					
CTG	2.8660	.97156	.093	.094	.207**	.294**	1				
ICT	2.5600	.72078	-.012	-.129*	-.074	.066	.088	1			
GOV	3.2500	.96733	.028	.064	.025	.017	.026	.013	1		
TECH	3.0718	.86285	.001	.061	.043	.035	.009	.194**	.119*	1	
EP	3.1609	.91768	.181**	.139**	.227**	.242**	.190**	.156**	.145**	.281**	1

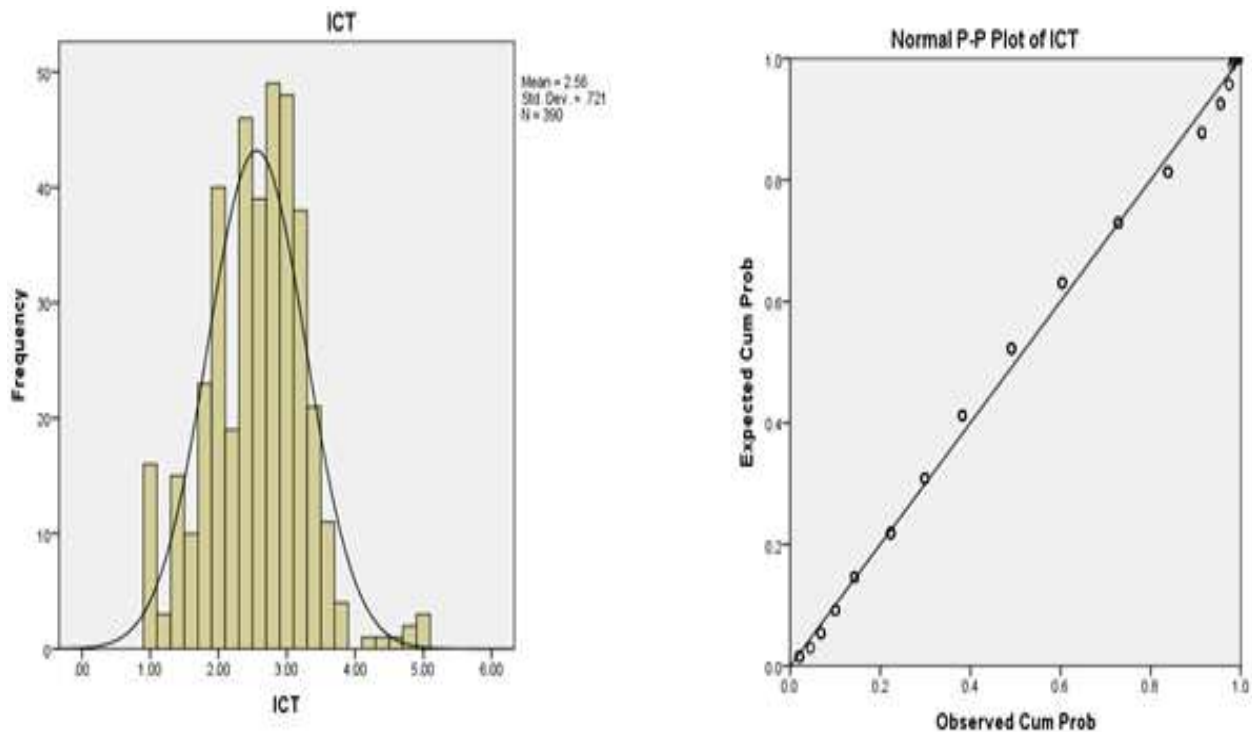


Figure 2: P-P Plot and Histogram of ICT infrastructure

Figure 2 shows the result between 2-3.4 between Not agree and Neutral but these results near to Neutral because the frequency is higher from 2.4-3.2 so this factor accepted. Table 2 show frequencies which are the result of survey different answers for five questions of ICT infrastructure factor and the curve appeared in figure 2 normal curve for normal results after the analysis of the answers in SPSS.

According to Figure 2, the statistics ratios are convergent but even that it tends to be more accepted by the people, due to the fact that some citizens do not have experience using computers or smart devices and need to know them how to use, especially social networking sites, e-mail, etc., while others have sufficient experience and knowledge, but this kind of citizens need to ease access to official government websites so that they can download the requirements of government transactions and conduct them properly. Figure 3 the bars of results is rising from 2.75-4 for this factor as shown in the chart the result of questionnaire between Neutral and Agree so the result is accepted.

In table 3 show the Transparency Frequency and the bars in figure 3 take lowest frequency which have higher population size to highest one with high population size so the curve will appear like shown in this figure this curve for taking the optimization frequencies to validate the answers for this factor to achieved the accurate results.

Transparency is very important because it deals with the laws of the state departments in order to know how to conduct government transactions in each department linked directly to the citizen where he can know how to complete transactions after he has learned from these laws as well as the clarity of the developers of these sites linked directly to the government ministries in terms of the dissemination of laws everywhere in the state. The best

example of these transactions is the booking of appointments for checking up patients so some of them have difficulties to deal with the modern technology.

Table 2: ICT Infrastructure Frequency Table

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	16	4.1	4.1	4.1
1.20	3	.8	.8	4.9
1.40	15	3.8	3.8	8.7
1.60	10	2.6	2.6	11.3
1.80	23	5.9	5.9	17.2
2.00	40	10.3	10.3	27.4
2.20	19	4.9	4.9	32.3
2.40	46	11.8	11.8	44.1
2.60	39	10.0	10.0	54.1
2.80	49	12.6	12.6	66.7
3.00	48	12.3	12.3	79.0
3.20	38	9.7	9.7	88.7
3.40	21	5.4	5.4	94.1
3.60	11	2.8	2.8	96.9
3.80	4	1.0	1.0	97.9
4.20	1	.3	.3	98.2
4.40	1	.3	.3	98.5
4.60	1	.3	.3	98.7
4.80	2	.5	.5	99.2
5.00	3	.8	.8	100.0
Total	390	100.0	100.0	

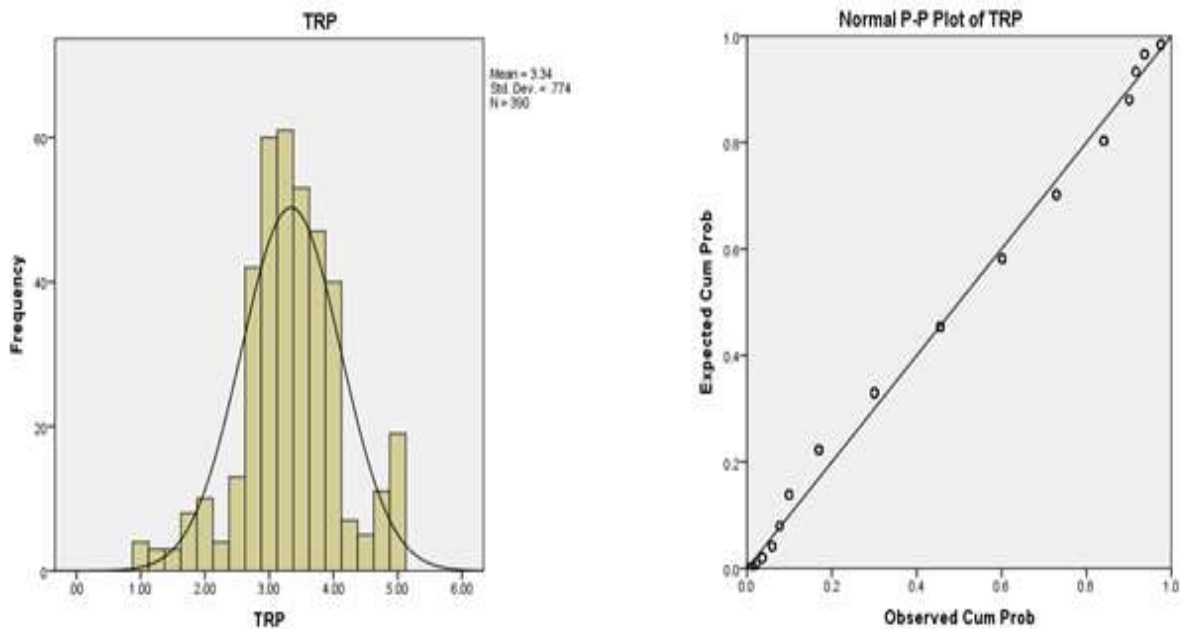


Figure 3: P-P Plot and Histogram of Transparency

Table 3: Transparency Frequency Table

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	4	1.0	1.0	1.0
1.25	3	.8	.8	1.8
1.50	3	.8	.8	2.6
1.75	8	2.1	2.1	4.6
2.00	10	2.6	2.6	7.2
2.25	4	1.0	1.0	8.2
2.50	13	3.3	3.3	11.5
2.75	42	10.8	10.8	22.3
3.00	60	15.4	15.4	37.7
3.25	61	15.6	15.6	53.3
3.50	53	13.6	13.6	66.9
3.75	47	12.1	12.1	79.0
4.00	40	10.3	10.3	89.2
4.25	7	1.8	1.8	91.0
4.50	5	1.3	1.3	92.3
4.75	11	2.8	2.8	95.1
5.00	19	4.9	4.9	100.0
Total	390	100.0	100.0	

Figure 4 shows that the bars of frequency higher level between 2.75-3.75 which means these factors accepted. In table 4 which appear after the analysis of E-Participation factor four questions in SPSS explain how people interact with survey of this factor the curve generated after this process which appear in figure 4 show the normality of results generated after analysis of people answers.

In this factor, the statistics are strongly oriented toward accepting the adoption of E-governance in Al-muthanna province because the citizen in now wants to cooperate more with the government to eliminate the gaps between them that will help the citizens to do their transactions easier than before. The citizen faces great difficulty in dealing with the government and vice versa. The implementation of this proposed framework can facilitate the lives of citizens in a large extent and hopes the government to increase the number of citizens participating so that it can increase the confidence of citizens in the government and build strong links between them.

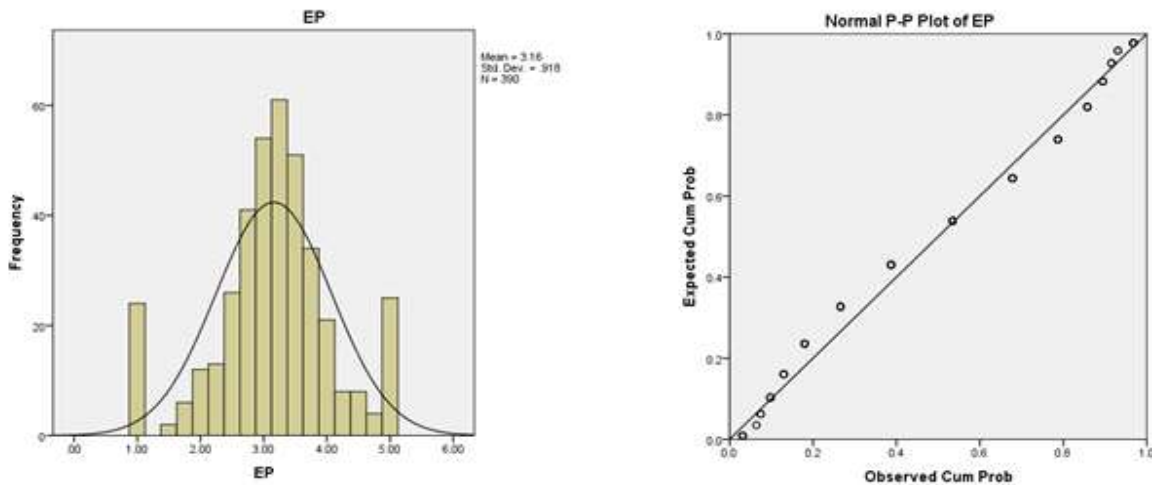


Figure Error! No text of specified style in document.4: P-P Plot and Histogram of E-Participation

This research also examines extreme values. According to [26], extreme values are those that fall outside the normal data set. Moreover, [27] identified the Outliers as “extreme cases which have considerable impact on the regression solution”. So, this technique has been used, because the strange values are called Z, the value is strange when it is less than -3 or more than +3 [26]. Therefore, based on the results obtained, there is no strange value.

Table Error! No text of specified style in document.4: E-Participation Frequency Table

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1.00	24	6.2	6.2	6.2
1.50	2	.5	.5	6.7
1.75	6	1.5	1.5	8.2
2.00	12	3.1	3.1	11.3
2.25	13	3.3	3.3	14.6
2.50	26	6.7	6.7	21.3
2.75	41	10.5	10.5	31.8
3.00	54	13.8	13.8	45.6
3.25	61	15.6	15.6	61.3
3.50	51	13.1	13.1	74.4
3.75	34	8.7	8.7	83.1
4.00	21	5.4	5.4	88.5
4.25	8	2.1	2.1	90.5
4.50	8	2.1	2.1	92.6
4.75	4	1.0	1.0	93.6
5.00	25	6.4	6.4	100.0
Total	390	100.0	100.0	

REFERENCES

- [1] Canterbury, D.C., 2004. Development Alternatives to Neoliberal Globalization: Or Are There No Alternatives? *Review of Radical Political Economics*, 36(3), pp.391-399.
- [2] Van Tuijl, P., 1999. NGOs and human rights: Sources of justice and democracy. *Journal of International Affairs*, pp.493-512.
- [3] Ndou, Valentina Dardha. "E-Government for developing countries: opportunities and challenges." *The electronic journal of information systems in developing countries* 18, no. 1 (2004): 1-24.
- [4] S. Al-Shafi and Weerakkody, "Factors affecting e-government adoption in the state of Qatar," *European and Mediterranean Conference on Information Systems* 2010, 2010.
- [5] M.A. Shareef, V. Kumar, U. Kumar, and Y.K. Dwivedi, "e-Government Adoption Model (GAM): Differing service maturity levels," *Government Information Quarterly*, vol. 28, pp. 17–35, 2011.
- [6] C.P. Lee, K. Chang, and F.S. Berry, "Testing the development and diffusion of e-government and e-democracy: A global perspective," *Public Administration Review*, vol. 71, pp. 444–454, 2011.
- [7] Passerini, K., 2007. Knowledge-driven development indicators: still an eclectic panorama. *Journal of Knowledge Management*, 11(5), pp.115-128.
- [8] Bhatnagar, S., 2004. E-government: from vision to implementation-a practical guide with case studies (Vol. 21, No. 1). Sage.
- [9] Stoltzfus, K., 2005, May. Motivations for implementing e-government: an investigation of the global phenomenon. In *Proceedings of the 2005 national conference on Digital government research* (pp. 333-338). Digital Government Society of North America.
- [10] Grönlund, Å. ed., 2001. Electronic government: Design, applications and management: Design, applications and management. *IGI Global*.
- [11] Rosenthal, Victor Daniel, Dennis George Maki, Yatin Mehta, Hakan Leblebicioglu, Ziad Ahmed Memish, Haifaa Hassan Al-Mousa, Hanan Balkhy et al. "International Nosocomial Infection Control Consortiu (INICC) report, data summary of 43 countries for 2007-2012. Device-associated module." *American journal of infection control* 42, no. 9 (2014): 942-956.

- [12] AlSallal, Muna, Rahat Iqbal, Vasile Palade, Saad Amin, and Victor Chang. "An integrated approach for intrinsic plagiarism detection." *Future Generation Computer Systems* (2017).
- [13] Tripp, C., 2002. A history of Iraq. *Cambridge University Press*.
- [14] S.P. Robertson and R.K. Vatrpu, "Digital government.," *Annual review of information science and technology*, vol. 44, pp. 317–364, 2010.
- [15] U. Sivarajah and Z. Irani, "Exploring The Application Of Web 2.0 In E-Government: A United Kingdom Context," *tGov2012*. Brunel University, University Kingdom, 2012.
- [16] S. Krishnan and T. Teo, "Moderating effects of governance on information infrastructure and e-government development.," *Journal of the American Society for Information Science and Technology*, vol. 63, pp. 1929–1946, 2012.
- [17] A.M. AL-Khouri, "E-government in Arab countries: A 6-staged roadmap to develop the public sector," *Journal of management and Strategy*, vol. 4, no. 80, 2013.
- [18] Albert, Daniel, Jonathan Dunham, Sadia Khan, Janet Stansberry, Sharon Kolasinski, Donald Tsai, Sally Pullman-Mooar et al." Variability in the biological response to anti-CD20 B cell depletion in systemic lupus erythaematosus." *Annals of the rheumatic diseases* 67, no. 12 (2008): 1724-1731.
- [19] Lambsdorff, Johann Graf. "The methodology of the corruption perceptions index 2007." Internet Center for Corruption Research, http://www.icgg.org/corruption.cpi_2006.html. Accessed 12 (2007).
- [20] Shafiq-un-Nabi, Sheikh, Faiyaz Shakeel, Sushma Talegaonkar, Javed Ali, Sanjula Baboota, Alka Ahuja, Roop K. Khar, and Mushir Ali. "Formulation development and optimization using nanoemulsion technique: a technical note." *AAPS pharmscitech* 8, no. 2 (2007): E12-E17.
- [21] Mack, Natasha, Cynthia Woodson, Kathleen M. MacQueen, Greg Guest, and Emily Namey. "Qualitative research methods: a data collectors field guide." (2005).
- [22] Kablov, E.N., A.F. Petrakov, V.P. Piskorskii, V.A. Valeev, and N.V. Nazarova. "Effect of dysprosium and cobalt on the temperature dependence of magnetization and phase composition of a material of the Nd-Dy-Fe-Co-B system." *Metal Science and Heat Treatment* 49, no. 3-4 (2007): 159-166.
- [23] S.L. Stirland, "Propelled by Internet, Barack Obama Wins Presidency," *Wired*, 4 Nov. 2008; <http://blog.wired.com/27bstroke6/2008/11/propelled-byin.html>.
- [24] J.R. Gordon, "Parametric and Nonparametric Sequential Change Detection in R: The cpm Package," *Journal of Statistical Software*, vol. 66, no. 3, 2015.
- [25] Tabachnick BG, Fidell LS. Using Multivariate Statistics. 6th ed. *Boston: Pearson Education*. 2013
- [26] W. Zikmund, "Business research methods 7th ed," *Thomson/South-Western. Appendices*, 2003.
- [27] S. Cookes and L. Steed, "SPSS Analysis without Anguish Version 11.0 for Windows.," *Australia: Johan Wiley & Sons*, 2003.