

Evaluating the Requirements for the Success of E-government Implementation from the Viewpoint of Academic Members in Jordanian Universities

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<p>Article history Submitted: 20 December, 2020 Revised: 29 December, 2020 Accepted: 30 December, 2020</p>	<p>Abstract This study sought to evaluate the requirement, challenges, and recommendations for the success of E-government implementation from the point of view of academic staff in Jordanian universities. The study relied on the descriptive approach, and a questionnaire was used for data collection. The sample of this study consisted of 178 academic staff at the Jordanian universities. The study found that E-government application encounters various challenges such as the lack of qualified staff that could manage the online processes, E-government organizational policies, security and privacy issues, and lack of information communication technology (ICT) infrastructure. In addition, the main requirements for the success of E-government are to ensure the protection of the citizens' information, to adopt security technologies to protect confidentiality, secure personal information, secure the information from intentional or unintentional disclosure, and ensure safe delivery. The academic staff in this study recommended ensuring the modernity of the E-government website and delivering up to date information. In addition, the E-government website shall have accessibility to all of the mean official department and directorates. Moreover, the E-government website shall have the accessibility and easiness of use, the characteristic of continuous development, and other characteristics that users require such as the ability to upload or attach documents.</p>
<p>Keywords: <i>E-government implementation</i> <i>E-government challenges</i> <i>Success requirements,</i> <i>Academic members</i></p>	

1. Introduction

E-government is one of the main priorities for all governments all over the globe to enhance their service delivery efficiency and mutual collaboration and interaction between the government and citizens [1]. E-government is an indicator for the public administration modernity [2]. It refers to the government utilization to reach the effectiveness and efficiency through increasing the citizens' accessibility to the services and government's accountability [3]. According to the identification of the World Bank Group [4], E-government refers to the process in which governments benefit from the information technology, internet, and networks to transform their relations with the citizen and business to be through online platforms.

E-government application encounters various challenges in terms of social, economic, and social issues [5] Financial and cultural challenges, technological barriers and the inability to develop user-friendly applications, lack of privacy laws, and the absence of cooperation among governmental departments are the main challenges for e-government application [6]. Hence, various aspects such as political, organizational, cultural and technological affairs affect e-government implementation [7].

According to [8]–[11], the technological advancement had served the humans lives and business transactions. Governments, policy makers and managers are always keen to benefit from this advancement to regulate and organize their relations with the citizens or employees through creating e-services and e-government. However, several challenges encounter the implementation of e-government such as:

1. Information Communication Technology (ICT) Infrastructure, which refers to the lack of standards and internetworking among the departments.
2. Privacy and security: provide a protection for the individuals' shared information and ensuring the confidentiality. As well, protect the system from unauthorized access.

3. Policy and regulation issues: the need for rules, laws and policies to control e-activates such as e-signature, information transmission, e- archiving, and forbidding the computer and intellectual crimes.
4. Short of qualified staff that could manage online processes.
5. Lack of management support: the highest management provides a positive environment to encourage e-government implementation.

In addition, various researches tend to identify the importance and benefits of E-government implementation such as the study [12]. The study revealed that e-government implementation has various benefits such as government processes efficiency and quality, public authorities' accountability, easiness of information accessibility, society awareness, decreasing the corruption, transparency, process effectiveness and efficiency, and reduce the cost to reach the governmental processes and the public authorities.

The study of [13] aimed to investigate the e-government success factors. This empirical study targeted municipal administrations in Muensterland – Germany: 56 internal administrations and 70 external administrations. The study revealed that customer satisfaction, reachability, flexibility, cost reduction, providing up to date information, business process optimization are the main success factors for e-government application [13].

The study of [12] aimed to identify the possible ways to meet the e-government application challenges. The study revealed that using standards, creating legal framework for the users privacy, developing user-friendly website, promoting the awareness about the e-government among citizens, tendering through governmental platform, optimizing administrative processes, developing platforms that offers online interaction with the government are the main requirement to ensure the success of e-government application.

Besides, due to the lack of comprehensive studies that provide a clear identification about the importance, challenges and implementation success requirements, the researcher decided to conduct this study to cover the research gap. Therefore, this study sought to investigate the challenges, importance, and benefits of e-government implementation and its success requirement. As well, having a successful e-government will lead to various benefits in terms of quality, development, and costs reduction. The present study aims to reach the following goals:

- ✓ Identify E-government role and importance.
- ✓ Investigate the requirements for e-government implementation success.

Evaluate the Jordanian universities academic staff recommendations to ensure the e-government implementation success.

2. Method

The study adopted the descriptive analytical approach, while the researcher developed a questionnaire to collect the data from the study sample and SPSS was used for data analysis. The researcher chose the sample randomly from the Jordanian Universities through a questionnaire. As well, the researcher distributed the study tool randomly to 120. Random sampling is preferable because it allows for the generalizability of the findings [14]. However, due to concern of low response rate, the sample was doubled to 240 respondents who are academic members at the Jordanian universities. By reviewing the related literature, the researcher designed a questionnaire to collect the data from the study sample. The study tool was exposed to a panel of specialized professors to ensure its validity. After validating the questionnaire, a reliability study was conducted to ensure that the measurement are reliable. The reliability of the variables is given in Table 1. Table 1 shows the Cronbach' Alpha value which rang (0.76 – 0.82), and total questionnaire items was (0.90), this indicate to acceptable Cronbach' Alpha value for each domain, whenever Cronbach' Alpha value is acceptable if it's more than 0.70 [15], [16] [17]–[19].

Table 1: Cronbach' Alpha of the Variables

Variables	Cronbach' Alpha
Challenges of E-government application	0.76
Security and Privacy and the Information Communication Technology (ICT) Infrastructure	0.82
Organizational Policies and the staff training	0.79
The academic staff recommendations to ensure the e-government success	0.80
Total	0.90

3. Results

This section provides a descriptive information of the respondents and the variables of this study.

3.1 Profile of the Respondents

This study distributed 240 questionnaire to academic staff in Jordanian universities. The collected responses accounted to 187 responses. Missing value were removed. A total of 9 response were considered as missing values and removed. This makes the collected Responses account to 178 with response rate of 78%, The study sample consisted of 178 of academic staff in Jordanian universities. Table 2 shows the distribution of the sample depending on the personal and functional variables.

Table 2: Background Information of the Respondents

Variable		Frequency	Percent %
Gender	Male	93	52.2
	Female	85	47.8
Age	20 – 30	0	0
	31 – 40	71	39.9
	41 – 49	49	27.5
	More than 50	58	32.6
Educational Qualification	Bachelors	78	43.8
	Masters	21	11.8
	PhD	79	44.4
Years of Services	5 years	21	11.8
	6 – 10 years	7	3.9
	11 – 15 years	36	20.2
	More than 15 years	114	64.0

3.2 Descriptive Information of the Variables

3.2.1 Level of Challenge of E-government Application

The first questions of this study asked: What are the challenges of E-government application? To answer this question, we compute the Means and standard deviations for each item of Challenges of E-government application level; table (3) shows the number of items, statement, mean score value (mean), standard deviation (SD), order, and level of importance.

Table 3: Level of Challenges of E-government Application

No.	Statement	Mean	SD	Order	Importance
3	One of the challenges that E-government application encounter is the Short of qualified staff that could manage online processes	4.32	0.612	1	High
2	E-government Organizational Policies could shape a challenge for E-government application	4.19	0.4878	2	High
1	Security and Privacy issue is challenging for E-government application	4.17	0.615	3	High
4	One of the challenges that E-government encounter is the lack Information Communication Technology (ICT) Infrastructure	4.12	0.5127	4	High
Total		4.19	.416	---	High

Table (3) shows Challenges of E-government application level: the range means for items of this domain is between (4.12 – 4.32), the higher means for item (One of the challenges that E-government application encounter is the Short of qualified staff that could manage online processes), but the lower means for item (One of the challenges that E-government

encounter is the lack Information Communication Technology (ICT) Infrastructure.) Total means was (4.19) by highly agreement.

3.2.2 Level of Requirement for the Success of E-government Implementation

The second questions of this study asked: What are the main requirements for the success of E-government implementation? To answer this question, we compute the means and standard deviations for each item of Security and Privacy and the Information Communication Technology (ICT) Infrastructure and Organizational Policies and the staff training levels, which are the components of the requirement. Table 4 shows the level of the security and privacy and ICT infrastructure.

Table 4: Level of Security and Privacy and the ICT Infrastructure

No.	Statement	Mean	SD	Order	Importance
1	E-government application shall ensure the protection of the citizens information as a main requirement for its success	4.64	0.4828	1	High
5	E-government application shall adopt security technologies to secure the usernames, passwords, bank accounts of the users of E-government application	4.39	0.7459	2	High
2	E-government shall take into consideration securing the personals information from transferring to third party to ensure its success	4.36	0.7402	3	High
4	E-government application shall be secured from intentional or unintentional disclosure for the personal data	4.28	0.957	4	High
3	E-government application shall ensure the safe delivery for personal information to ensure its success	4.24	0.812	5	High
Total		4.38	.6432	---	High

Table 4 shows Security and Privacy and the Information Communication Technology (ICT) Infrastructure level: the range means for items of this domain is between (4.24 – 4.64), the higher means for item (E-government application shall ensure the citizens information as a main requirement for its success), but the lower means for item (E-government application shall ensure the safe delivery for personal information to ensure its success) Total means was (4.38) by highly agreement.

Table 5: Level of Organizational Policies and the Staff Training

No.	Statement	Mean	SD	Order	Importance
5	E-government employees shall be trained on how to operate technical issues and handle their tasks	4.35	0.5559	1	High
1	Government Shall create the legislations, policies and laws that forbids cyber-crimes to secure their e-government application	4.32	0.6739	2	High
2	E-government website shall adopt e-signature policy to protect the information's of the users	4.16	0.6706	3	High
3	E-government shall index the intellectual prosperities	4.12	0.5848	4	High
4	E-government shall impose privacy policy for trade contracts and agreement to forbid the third parties reach	4.11	0.4287	5	High
Total		4.21	.4139	---	High

Table 5 shows Organizational Policies and the staff training level: the range means for items of this domain is between (4.11 – 4.35), the higher means for item (E-government employees shall be trained on how to operate technical issues and handle their tasks), but the lower means for item (E-government shall impose privacy policy for trade contracts and agreement to forbid the third parties reach.) Total means was (4.21) by highly agreement.

3.2.3 Level of Academic Staff Recommendation

The third research question asked: What are the academic staff recommendations to ensure the e-government success? To answer this question, we compute the Means and standard deviations for each item of the academic staff recommendations to ensure the e-government success level, Table 6 shows that.

Table 6: Level of Academic Staff Recommendation to Ensure the E-government Success

No.	Statement	Mean	SD	Order	Importance
3	E-government website shall have the modernity, while it shall deliver up to date information. As well as E-government Application shall maintain the privacy and policy for the users	4.47	0.5006	1	High
5	E-government website shall have the accessibility to all of the mean official department and directorates	4.39	0.6319	2	High
1	E-government website shall have the accessibility and easiness of use	4.36	0.5574	3	High
2	E-government website shall have flexibility to bear the heavy tasks and services requirements	4.36	0.5574	4	High
4	E-government website shall have the characteristic of continuous development and other characteristics that users require such as ability to upload or attach documents	4.24	0.5827	5	High
Total		4.37	.422	---	High

Table 6 shows Security and Privacy and the Information Communication Technology (ICT) Infrastructure level: the range means for items of this domain is between (4.24 – 4.47), the higher means for item (E-government website shall have the modernity, while it shall deliver up to date information. As well as E-government Application shall maintain the privacy and policy for the users), but the lower means for item (E-government website shall have the characteristic of continuous development and other characteristics that users require such as ability to upload or attach documents.) Total means was (4.37) by highly agreement.

4. Discussion

The challenges that encounter the E-government application based on their importance were: the lack of qualified staff that could manage the online processes, E-government Organizational Policies, Security and Privacy issues, and lack Information Communication Technology (ICT) Infrastructure [20].

The main requirements for the success of E-government are to ensure the protection of the citizens inform, to adopt security technologies to protect the confidentiality, securing the personal information, secure the information from intentional or unintentional disclosure, and ensure the safe delivery [5], [10], [21]–[24]. As well, the respondents showed a significant importance to train the E-government employees to handle online tasks, to create the legislations that forbid the cybercrimes, to index the intellectual properties, to impose privacy policy on the trade contracts and agreement to forbid the reach of third parties [12].

The academic staff, to ensure the E-government application, recommended that E-government website shall have the modernity, while it shall deliver up to date information. In addition, E-government website shall have the accessibility to all of the mean official department and directorates. Moreover, E-government website shall have the accessibility and easiness of use, the characteristic of continuous development and other characteristics that users require such as ability to upload or attach documents.

5. Conclusion and Recommendations

The main challenges of E-government application are illustrated in the lack of qualified staff, the need for organizational policies, security and privacy issues, and the lack of ICT Infrastructure. As well, the success of E-government requires protecting users information and confidentiality, securing the personal information from the disclosure, training the E-government employees, focusing on legislations that forbid the cybercrimes, indexing the intellectual properties. Therefore, governments are recommended to focus on the ICT infrastructure, privacy and security, and employing highly skilled staff to handle the online tasks.

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