

Role of E-government in Improving the Performance of Egyptian Civil Status Office during Covid 19 Pandemic

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Abstract

The purpose of this study is to know the Role of E-government in improving performance Egyptian Civil Status Office during covid-19 pandemic. The sampling method was used by selecting a simple random sample of workers in Egyptian Civil Status Office and the number of distributed forms reached (150) forms, (137) were retrieved from them. After examining the questionnaire forms, (12) forms were excluded because they were not fit for statistical analysis, so the number of valid forms that were used in the analysis reached 125. The main result is that there is statistically significant, positive correlation relationship between the performance of e-government in Egyptian Civil Status Office and the spread of covid-19 pandemic based on the original primary data collected and analyzed. The research recommends that the Egyptian government further utilize the application of e-government while raising citizens' awareness of the importance of using e-public services as a major requirement for mainstreaming e-government throughout different territories.

Keywords: E-government, improving performance, Egyptian government, covid-19 pandemic, Civil Status Office.

Introduction

The concept of e-government is one of the concepts that meet the interest of many policy makers and economists due to the large and diverse uses of it, from economic institutions to government institutions to hospitals and social organizations and even charitable organizations, and since Civil Status Office are one of the most important sectors from which the launch is made to achieve the goals of these institutions and organizations as well (Twizeyimana, J. D., & Andersson, A., 2019). A sector that benefits from public funds must respond to the requirements of society and the labor market, as it faces great pressure to be more effective, which necessitates it to go with more transparency and public accountability in parallel to moving towards independence and ensuring that systems are managed in an

effective manner (Twizeyimana, J. D., & Andersson, A., 2019).

There is a modern system adopted by the Egyptian government using the World Wide Web and the Internet to link its institutions with each other, link its various services with private institutions and the public in general, and put information within the reach of individuals in order to create a transparent relationship characterized by speed and accuracy aimed at improving the quality of performance in order to raise the level of efficiency and effectiveness of processes and procedures Within the government sector, reducing government costs, raising the level of beneficiaries' satisfaction with the services provided to them, and supporting economic development programs. The Egyptian government completed the automation of the government's electronic

portal during March 2018, which provides all government services to citizens electronically, and also includes traffic, documentation and month services (Choi, T., & Chandler, S. M., 2020). Real estate and electronic coordination for students, in addition to the services of extracting important papers for the citizen, such as national ID cards, birth certificates, and others (Choi, T., & Chandler, S. M., 2020).

The Egyptian e-government program had been launched through a partnership between the Ministry of Communications and Information and the Ministry of Local Development. This program entails two stages, the first stage (2001-2007) during which the equipment of the e-government strategic plan is integrated and approved, and the second phase (2007- 2012), which aims to expand successful and pioneering projects at the national level and to develop the administrative body of the government (Ghareeb, A. M., Darwish, N. R., & Hefney, H. A., 2020). In 2004, the Egyptian e-government portal was launched, which contains some services such as paying bills and extracting official documents such as birth certificates and others. Although the Ministry of Communications and Information developed the e-government program in 2000, the Ministry of Local Development took the leadership role. In 2004, for a more efficient and effective administrative structure. Dissemination of open government data aims to enhance transparency in the implementation of government transactions, as it establishes the principle of accountability within government agencies and facilitates public review and evaluation of government performance. Open data helps in increasing the efficiency of resource use and designing service delivery channels according to the needs of customers (ElKhashin, S. A., & Saleeb, N., 2020), as well as creating more jobs that depend on data analysis. The benefits of open data do not stop there. Rather, it helps in making decisions based on specific data on the state's general policies, identifying development opportunities, and contributing to achieving the sustainable development goals set by the United Nations (Ghareeb, A. M., Darwish, N. R., & Hefney, H. A., 2020).

Research problem

Through the previous presentation, the problem of the study stems from the scarcity of

theoretical and field research that deals with the issue of e-government and its role in improving the performance of Civil Status Office in Egypt, and its contribution in the past period to overcome the Covid crisis 19. Therefore, we tried through this study to get acquainted with some aspects of e-government by providing an overview of this topic, which focused primarily on the ability of Civil Status Office in Egypt to apply e-government, which deserves further study and research. The problematic of this study can be summed up as follows:

What is the role of e-government in improving the performance of Egyptian Civil Status Office?

literature review

E-government:

The concept of government has entered the field of business on a large scale, especially after the scandals that affected major international companies, which led to huge financial losses (for example, Enron), and the need to form procedural frameworks to enable managers to take decisions in a correct way so that the results of their decisions directly serve an important service. The organization and its strategy (GOHARY, E. E., 2019).

The government framework includes a set of organizational relationships in the institution, auditing and accounting laws, in addition to the necessity to provide an integrated system of performance measurement standards. Institutions seek, through the government of their internal and external processes, to provide homogeneity between their various administrative units so that the work of these units is complementary to each other, and with the technological and technical development and so that the institutions keep pace with this information revolution and increase the exchange of information and communication transactions, and the integration and interaction of various systems, services and administrative departments, increased. Paying attention to the issue of e-government that helps to provide the administrative services available to those dealing with the institution in a comfortable, effective and transparent manner (GOHARY, E. E., 2019).

In this regard, many concepts of electronic government have been given: Ashaye, O. R., & Irani, Z. (2019).

- 'E-government is the reinvention of business with new ways of integrating and integrating information and providing an opportunity to access it through a website.'
- It is the ability of sectors to exchange information and provide services between themselves and between citizens and the business sector with high speed and accuracy, and at the lowest possible cost while ensuring the confidentiality and security of information circulating at any time and place.
- 'It is a virtual system that enables the administrative bodies of institutions to fulfill their obligations to all beneficiaries by using advanced electronic technologies, ignoring place and time, while achieving quality, confidentiality and security in information.'
- 'It is a new and advanced method, but rather an information technology revolution that has led to a quantum leap in the advancement of government agencies, private sector agencies and others, from traditional administrations to electronic transactions. In short, e-government is referred to as the application of technologies on the Internet in governmental and non-governmental commercial sectors and activities.'

There are major requirements for enforcing e-government, technical, organizational, administrative, human, and legal. The research would focus on the most crucial three requirements that were referred to by many experts in this field and that can be summarized as follows: (Yasir, A., Hu, X., Ahmad, M., Rauf, A., Shi, J., & Ali Nasir, S., 2020):

1- Solving actual existing problems in the reality before approaching it into the electronic environment. To demonstrate the importance of this requirement, we will give an example regarding e-government content, as any government must make all necessary information to available to their citizens online. Where there must be a policy according to which all government documents, information and forms are published directly via the Internet. In short, whenever a new government document or new information appears, it must be posted directly on the Internet. In this

context, the biggest problem posed is the documentation problems that exist in real life, as there is no consistent documentation system where all government documents can be correctly kept and filed to be accessible when needed. If this is the real work reality, then it is dangerous to proceed to build e-government before ending the problem exists in non-electronic reality.

2- Providing appropriate structures and strategies for building societies. Building societies requires the creation of an electronic interactive medium to facilitate effective communication among government institutions, between them and the citizens, and between them and their providers. So, such information is provided directly on the status of any commercial operation that was performed earlier, besides the use of video conferencing to facilitate communication between the citizen and the government civil servants. So that the citizen is linked to the various government agencies to obtain all government services automated in addition to the achievement of the government itself. Its various activities by adopting communication and information networks to reduce costs, improve performance, speed of delivery and effectiveness of implementation. It is possible for e-governments to gain significant returns and provide better information and services through electronic interactions between governments and citizens, and between governments and the business sector, and within the government departments themselves. The concept of e-government should reflect government's endeavor to reinvent themselves in order to perform their tasks effectively in the global economy that is connected to each other via the internet. Thus, e-government is nothing but a fundamental shift in the ways governments follow to conduct their business on a scale that we have not seen since the beginning of the industrial era.

3- Dealing with issues related to the legality of commercial exchanges and providing their technical and organizational means. This is because all financial transactions should be processed on the internet, such as the possibility of paying various government bills and fees directly online and facilitating payment methods and the extent to which the law accepts electronic payment as an

alternative to cash payment. Another aspect is about protecting the security of electronic correspondence, respecting privacy, and drafting a criminal accountability law for cyber thieves and those messing with information security. This means that the e-government requires standing on all the legislation of the existing legal system. However, it is not likely to legislate it with a ready-made legislative template that may be appropriate in a context while inappropriate in the local context. Therefore, the legal system for e-government requires that we conduct a legislative survey to consolidate the foundations of an effective legal system that works in the field of government administration and government contracting. When legal challenge are combined with elements of success in building e-government, then the crucial elements to ensure building a true and effective e-government would be through developing a plan that stimulates opportunities for participation and reinforcing investment.

Egyptian Civil Status Office:

The Ministry of Interior of the Arab Republic of Egypt has provided the possibility for citizens to obtain these electronic services through its electronic website or through the ministry's mobile application. For the civil status and recruitment sector, citizens used to obtain the national ID card within 72 hours as part of measures of enhancing the government responsiveness and as a continuation of the Ministry of Interior's approach to relieving citizens by providing public services that the ministry's agencies provide to them in an easy way (Egyptian government portal).

Citizens are able to access the ministry's website and choose the services they want to obtain, and the payment of fees for these services is through all electronic payment mechanisms. Then, the service documents will be sent via Egyptian mail to the addresses of citizens confirmed in their accounts on the ministry's website, and get acquainted with the civil status services and recruitment (Egyptian government portal):

A citizen can obtain a national ID card, an automated birth certificate, a marriage or divorce document, a death record, a family or an individual, through the 'Civil Status' section of the ministry's official website.

- A citizen can also, through the "Recruitment Services" section on the site, obtain a "Travel Permit - Replacement for Lost / Damaged Service Termination Certificate - Certificate of Experience" for citizens who previously performed military service at the Ministry of Interior, and then deliver the document to the citizen to the door of the house.

People can extract your government documents online by following the following steps:

- Enter the official website of the Ministry of Interior (<https://moi.gov.eg/>) and choose from civil status or recruitment services.

- Choose the type of document or certificate to be extracted.

- Record student and beneficiary data and enter the number of beneficiaries.

- The citizen enters the required data according to the document to be extracted, clicking on "I have read the instructions and I agree to the conditions", then clicking on "Next".

- Enter the applicant's information and the address to which the application will be delivered, then click 'Next'.

- Enter the code in the image and click 'Send Request'.

The application shall be delivered within 72 hours of sending the request. In the event that the applicant is not present at the place of receipt, a phone call is made 3 times to set another date, and the service is available through all credit cards Visa - Master Card issued by any bank inside or outside Egypt, In addition to the 'Visa Net' of the National Bank of Egypt, as well as the payment system on receipt.

Application framework

Population and sample study

The study population consists of workers in Egyptian Civil Status Office as a sample of the study to know the effect of e-government in improving the performance of the Egyptian Civil Status Office. Due to the difficulty of conducting a comprehensive enumeration of a community, the sampling method was used by selecting a random sample of workers in

Egyptian Civil Status Office. The number of distributed forms reached (150) forms, and (137) were retrieved from them, and after examining the questionnaire forms, (12) forms were excluded because they were not fit for statistical analysis, and the number of valid forms that were used in the analysis reached 125.

Study tool

The research used the questionnaire form as a tool for the field study by preparing the questionnaire and its axes and phrases using the theoretical framework of the study, and the questionnaire included two axes, namely (the e-government axis and the Egyptian Civil Status Office performance axis). The use of a five-point Likert scale consisting of strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1) in answering the questions of the axes of the questionnaire.

Validate the study tool

1- Arbitration honesty or apparent honesty:

The researcher presented the questionnaire in its initial form to (5) of the arbitrators to reflect an opinion on their agreement to the axes of the questionnaire terms. Also, to know their opinions and observations about the suitability of the questionnaire phrases for the subject of the study, and the extent of clarity and accuracy of formulating the phrases and their linguistic integrity, delete, amend and add phrases, and in light of this the questionnaires design was reformulated in its final form.

2- Self-honesty:

The reliability factor of the questionnaire was calculated, and then the self-validity factor of the questionnaire was calculated through the following equation:

$$\text{Validity factor} = \sqrt{\text{reliability factor}}$$

$$\sqrt{\text{The validity factor of the questionnaire} = 0.839} = 0.916$$

The value of the self-validity coefficient of the questionnaire shows that it has a high degree of validity and hence is suitable for application to the study sample.

3- Constructive validity:

The constructive validity of the questionnaire was verified as the study tool was distributed to an exploratory sample consisting of (20) individuals from the study community and outside the application sample. This is in order to determine the extent of the internal homogeneity of the study tool, by determining the correlation coefficients between each statement and the degree of the statement that the axis contains the phrase belongs to him, where the results are as shown in tables 1 and 2.

The first axis: e-government:

Table (1) Correlation coefficients between the score for each phrase and the total score for the axis

N.	Correlation coefficient	P-value
1	**0.762	0.00
2	**0.753	0.000
3	**0.728	0.00
4	**0.733	0.000
5	**0.736	0.00
6	**0.711	0.000
7	**0.653	0.00
8	**0.731	0.000
9	**0.745	0.000
10	**0.799	0.000
11	**0.692	0.000
12	**0.664	0.000
13	**0.758	0.000
14	**0.649	0.000
15	**0.619	0.000

Statistically significant at the level of significance ($\alpha = 0.01$)

The second axis: Egyptian Civil Status Office performance

Table (2) correlation coefficients between the score for each phrase and the total score for the axis

N.	Correlation coefficient	P-value
1	**0.747	0.000
2	**0.725	0.000
3	**0.631	0.000
4	**0.772	0.000
5	**0.736	0.000
6	**0.664	0.000
7	**0.761	0.000
8	**0.693	0.000
9	**0.745	0.000

10	**0.699	0.000
11	**0.622	0.000
12	**0.603	0.000
13	**0.653	0.000
14	**0.719	0.000
15	**0.741	0.000

Statistically significant at the level of significance ($\alpha = 0.01$)

From the previous tables, we notice that all correlation coefficients for all questionnaire items were statistically significant at the level of significance $\alpha = (0.01)$, and this means that the tool has structural validity and is valid for the purposes of the study.

The stability of the study tool

The stability of the axes of the questionnaire was calculated using the Kornenbach alpha coefficient for internal consistency, and the results were as shown in table 3.

Table (3): Stability coefficient of the survey axis

Axis	Alpha Kornbach	number of elements
e-government	0.833	15
Egyptian Civil Status Office Performance	0.849	15
Total questionnaire	0.839	30

The Alpha Kornbach coefficient was calculated for the elements of the axes of the questionnaire form, and it can be noticed from these results that the value of the stability factor Alpha for the axes is greater than 0.60. This reflects a strong stability factor that confirms the validity and correlation of the elements of the axes in the questionnaire form, as well as it ensures the validity of the questionnaire. In table 4, the demographic characteristics of the study sample have been analyzed.

Analysis of the questionnaire:

First: Characteristics of the study sample

Table (4) Distribution of the study sample

Characteristics	Categories	N	%
Gender	Male	75	60
	female	50	40
Age	25 and younger	11	8.8
	From 26 - 35 years	54	43.2
	From 36 – 45 years	31	24.8
	46 years and older	29	23.2
Scientific degree	Bachelor	74	59.2
	Master	34	27.2
	PhD	17	13.6
Current functionality	Officer	49	39.2
	Manager	53	42.4
	Head of Section	23	18.4
Years of experience	5-10 years	45	36
	From 11 to 16 years old	44	35.2
	17 years and over	36	28.8

Source: Study sample data

The study questions will be answered by analyzing the answers of the study sample individuals on the phrases of the study axes, and the mean, the relative weight and the

standard deviation will be relied upon to measure as indicated in table 5.

The first axis (e-government):

Table (5) the first axis

N.	Phrase	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean	S.D	Relative weight	Degree	Arrangement
1	The e-government provides accurate information without errors.	24	44	20	4	8	3.720	0.715	0.744	High	9
2	The e-government saves the time and effort needed to complete the service.	32	48	4	12	4	3.920	0.702	0.784	High	7
3	The e-government provides services in different languages.	40	48	4	8	0	4.200	0.656	0.840	High	3
4	The e-government realizes and meets customer needs in a very effective way.	36	56	8	0	0	4.280	0.650	0.856	High	1
5	The e-government is characterized by high quality when providing services	48	32	8	12	0	4.160	0.669	0.832	High	5
6	The e-government contributes to raising the efficiency of service provision	36	48	12	4	0	4.160	0.707	0.832	High	5
7	The e-government contributes to easy access to information related to the services provided to customers	36	52	8	4	0	4.200	0.677	0.840	High	3
8	The e-government contributes to facilitating the services provided	44	44	4	8	0	4.240	0.553	0.848	High	2
9	The e-government provides a support service to customers who deal with e-	40	32	12	16	0	3.960	0.598	0.792	High	6

	services in the service sector											
10	The government contributes to providing the electronic service throughout the day	40	48	8	4	0	4.240	0.697	0.848	High	2	
11	The government contributes to providing the electronic service quickly and efficiently	24	48	20	8	0	3.880	0.721	0.776	High	8	
12	The government does not allow misuse of customers' personal information	36	56	4	4	0	4.240	0.667	0.848	High	2	
13	The government contributes to raising levels of safety in completing operations	36	52	4	8	0	4.160	0.698	0.832	High	5	
14	The government contributes to increasing the organizations' ability to deal with customer complaints	32	48	4	12	4	3.920	0.661	0.784	High	7	
15	The government helps solve any problem that customers may face when completing electronic transactions.	40	48	4	8	0	4.200	0.687	0.840	High	4	

Source: Study sample data

According to the table 5, it is evident that the level of e-government implementation in the Egyptian Civil Status Office performance has increased from the point of view of the study

sample, as the average value of the axis expressions reached 4.099.

The second axis (Egyptian Civil Status Office performance):

Table (6) the second axis

N.	Phrase	Strongly agree %	Agree %	Neutral %	Disagree %	Strongly disagree %	Mean	S.D	Relative weight	Degree	Arrangement
1	Regulations and laws in the civil status sector give clients the right to obtain all the services they need	32	52	12	4	0	4.120	0.598	0.824	High	3
2	Regulations and laws in the civil status sector grant clients the right to equal treatment	32	56	8	4	0	4.160	0.697	0.832	High	2
3	Regulations and laws in the civil status sector grant clients the right to review all laws and regulations	28	36	28	8	0	3.840	0.667	0.768	High	7
4	The Civil Status Sector provides all services that meet the needs of customers efficiently and effectively	44	36	12	8	0	4.160	0.698	0.832	High	2
5	The Civil Status Sector aims to provide all services and products efficiently and effectively	40	52	4	4	0	4.280	0.661	0.856	High	1
6	The Civil Affairs Sector enjoys flexibility in	28	52	12	8	0	4.000	0.721	0.800	High	5

	all dealings with clients										
7	The Civil Status Sector provides a high degree of security and confidentiality in all dealings	20	52	16	12	0	3.800	0.667	0.760	High	8
8	The Civil Status Sector works to raise the efficiency of employees 'performance and upgrade their skills	20	60	8	12	0	3.880	0.698	0.776	High	6
9	The Civil Status Sector is keen to provide integrated services to its clients	32	56	8	4	0	4.160	0.661	0.832	High	2
10	The Civil Status Sector works to reduce the cost of services that clients bear	24	40	20	16	0	3.720	0.703	0.744	High	9
11	The Civil Status Sector works to apply the latest technological methods in transactions	28	60	0	12	0	4.040	0.687	0.808	High	4
12	The Civil Status Sector is keen to present all information with transparency and clarity.	32	52	12	4	0	4.120	0.672	0.824	High	3
13	The Civil Status Sector is concerned that service	28	36	28	8	0	3.840	0.667	0.768	High	7

	units provide services in accordance with local and international standards.										
14	The Civil Status Sector is concerned with the service units enjoying independence in making decisions	44	36	12	8	0	4.160	0.698	0.832	High	2
15	The Civil Status Sector is keen on the employees 'commitment not to conflict of interests when performing their work.	40	52	4	4	0	4.280	0.661	0.856	High	1

Source: Study sample data

Based on table 6, the high level of performance of the Egyptian Civil Status Office is evident from the point of view of the study sample, as the average value of the axis statements is 4.037

The research hypothesis that there is statistically significant effect of the e-government in improving performance Egyptian Civil Status Office during covid-19 pandemic and when performing the statistical test to find out the validity of the hypothesis, the research used the method of correlation coefficient Pearson, and the result was concluded based on table 7.

Table (7) the correlation between the variable of the level of the e-government in improving performance Egyptian Civil Status Office during covid- 19 pandemic

Variable	Level of performance Egyptian Civil Status Office
Level of e-government	**0.784

Statistically significant at the level of significance ($\alpha = 0.01$)

It is evident from table (7) that there is statistically significant, positive correlation relationship between the variable of the level of e-government in improving performance Egyptian Civil Status Office during covid -19 pandemic at the level of significance 0.01. This result shows the validity of the research hypothesis and thus denotes a positive effect of the level of e-government in improving performance Egyptian Civil Status Office during the lockdown of covid -19 pandemic.

To estimate the value of the effect of e-government in improving performance Egyptian Civil Status Office during covid-19 pandemic lockdown, the simple regression equation was calculated between both the variable of the level of e-government (the independent variable) and the variable of the level of performance Egyptian Civil Status Office (the dependent variable) as indicated in table 8.

Table (8) the effect of the level of e-government on the level of performance Egyptian Civil Status Office

Hypothesis	B	t	F	P-VALUE
Main hypothesis	0.79	9.14**	83.54**	0.000

Statistically significant at the level of significance ($\alpha = 0.01$)

The significance of the model as a whole was shown as the value of F was significant at the level of 0.01 and the significant effect of the level of e-government on the level of performance Egyptian Civil Status Office. It was found that the higher the level e-government rate by 1%, the higher the level of performance Egyptian Civil Status Office by 0.79%.

Conclusion

It can be concluded that the level of e-government implementation in the Egyptian Civil Status Office has increased based on the study sample, which confirmed a statistically significant, positive correlation relationship between the variable of the level of e-government in improving performance Egyptian Civil Status Office during covid -19 pandemic. For, the higher the level e-government rate by 1%, the higher the level of performance Egyptian Civil Status Office by 0.79%. Finally, due to the coronavirus precaution measures and the persistent need for physical distancing, citizens in Egypt started to realize the significance of using the e-government services and hence, the government were better able to enforce the use of electronic services particularly civil services.

Recommendations

There is a necessity of working to increase the spread of the concept and culture of e-government among all employees of the Egyptian Civil Status Office system through the establishment of training courses and the issuance of bulletins clarifying developments in the methods and methods of e-government. Additionally, elevating the level of citizens' awareness of e-government applications needs to be related to the public health enhancement

and health protection they would gain out of using e-services. There is also a need for capacity building of the Egyptian Civil Status Office in order to maintain the efficiency of their performance of their tasks, especially considering the continuous developments occurring in the most efficient standards. Finally, academics and researchers interested in the pivotal role of e-government in the Egyptian Civil Status Office, should be encouraged to conduct further research related to the application of e-government in other ministries in Egypt in order to raise the efficiency of performance of different sectors and surmount any impediments that may hinder the application of e-government.

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