E-government Implementation and its Impact on Improving the Governmental Performance With an Application on Telecom Egypt

تطبيق الحكومة الإلكترونية وأثرها فى تحسين الأداء الحكومى بالتطبيق على الشركة المصرية للاتصالات

Dr . Marwa Sayed Mohamed Hussein
Lecturer at Business Administration Department, Modern Academy for Computer Science and Management Technology in Maadi.

Abstract

It is obvious that the digital transformation has been growing strongly in the recent years; the e-government also has become the most important change and the main key of the success in all public sector organizations. For that reason, the main purpose is to highlight the challenges and barriers that face the public sector in implementing e-government in Egypt. Also to find out how governmental organization can face these barriers to improve the governmental performance. Also, the research identifies the meaning of e-government, clarifying the importance of e-government, and the barriers that face organizations in the implementation of the e-government. In addition, the research identifies the meaning of governmental performance, and the types of performance measures.

Empirically, the research evaluates this transformation towards the e-government at Telecom Egypt, to find out the challenges and barriers that face Telecom Egypt in the implementation of the e-government and the methods that can be used to improve its performance. Moreover, the research provides some essential information for decision makers in Telecom Egypt. The literature review, books and journals are used to describe the theoretical part, and help in analyzing the practical part.

Finally, the most important result of the research conducted is the positive significant relationship between implementing the e-government and improving

the governmental performance. In addition, this research presents some recommendations to the governmental organizations officials to help them in the decision making process.

Keywords: E-Government, Digital Transformation, Government Performance, Public Sector organizations.

ملخص البحث:

من الواضح أن التحول الرقمي قد نما بقوة في السنوات الأخيرة ؛ وأصبح تطبيق الحكومة الإلكترونية من أهم التغيرات ومفتاح رئيسي للنجاح في جميع المنظمات العامة . ولهذا فإن الهدف الرئيسي من هذا البحث هو تسليط الضوء على التحديات والعقبات التى تواجه المنظمات العامة عند تطبيق الحكومة الإلكترونية، وأثرها فى تحسين الأداء الحكومى بمصر . هذا وقد تناول البحث مفهوم الحكومة الالكترونية ومميزات تطبيقها والعوائق والتحديات التى تواجهها اثناء عملية التطبيق ،ايضا تناول البحث مفهوم الأداء الحكومي ومقاييس الأداء. ومن الناحية العملية فان البحث يقوم دراسة وضع الشركة المصرية للاتصالات اثناء تطبيق الحكومة الإلكترونية للتعرف على اهم المعوقات والتحديات التي تواجه المصرية للاتصالات والاساليب التى يمكن استخدامها لتحسين ادائها وتقديم بعض التوصيات فى ذلك الشأن. تم الرجوع هذا البحث الى العديد من الأدبيات والكتب والمجلات العلمية لوصف الاطار النظري والتى كان لها دور ايضا في تحليل الجزء العملي. وأخيراً فإن أهم نتيجة للبحث هي وجود علاقة قوية ذات دلالة إيجابية بين تطبيق الحكومة الإلكترونية وتحسين الأداء الحكومي. كما يقدم هذا البحث بعض التوصيات لمسؤولي الجهات الحكومية لمساعدتهم في اتخاذ قراراتهم.

الكلمات المفتاحية : الحكومة الالكترونية ، التحول الرقمى ، الاداء الحكومى ، المنظمات العامة.

Introduction

The world is witnessing many technological developments in the field of information and communication; these developments contribute to improving the performance of governmental organizations by simplifying administrative procedures, increasing the efficiency and effectiveness of administrative work. In this sense many countries realized the importance of e-work transition towards the application of which is called (E-government). Those countries

have started to adopt the concept of e-government which aims at improving the administrative performance and achieving sustainable development, raising economic growth rates, and providing services that meet and satisfy the citizens' needs.

The United States of America is one of the first countries that adopted e-government and created the electronic citizen and made great progress in this field over the past years. In 1992 the US administration developed a strategy to make the government smarter, less expensive and more effective. In 2002 the e-government was effectively applied in all agencies, ministries, or public organizations. The strategy of implementing the e-government includes several points such as: (1) Simplifying the services to citizens, (2) Eliminating bureaucracy, (3) Simplifying the work of federal agencies, (4) Reducing administrative work costs and achieving rapid speed in government activities (Rosner, 2012). Also Denmark started in 2005 to adopt an e-government strategy and now it has gained great experience in the implementation of e-government. In 2010, the Organization for Economic Co-operation and Development (OECD) issued a report stating that Danish government has made great efforts to ensure that e-government program is suitable for the targeted public sector and there is co-ordination with other governmental organizations (OECD, 2010).

In Arab countries the UAE, for example, is considered the first Arab country that implemented the e-government system. In 2001, the UAE started the program as semi-integrated form. The e-government project is considered a pioneering and advanced project, especially in the Emirate of Dubai which seeks a comprehensive application of e-government management through building a network of government information that connects all governmental organizations in Dubai, as well as unifying the common work systems for all of those organizations (Westland and Al-Khouri, 2012). According to the United Nations e-government report issued in February 2012, the United Arab Emirates has made great progress in the field of e-government worldwide. The success factors can be summarized as follows: (1) Seeking help from international private sector companies, (2) Focusing on the needs and requirements of citizens, (3) Changing the mentalities of governmental employees and citizens by providing training courses (Department of E-government, UAE, 2012).

On the other side, some literature shows the difference between developing and developed countries in implementing e-government. The developing countries face delay in the implementation, because they face complex challenges and barriers. These barriers are technical, social, financial, and organizational barriers. While developed countries have the ability to recover and overcome these barriers more than developing countries abilities.

Theoretical Framework

Problem Statement

The transition from traditional government to e-government represents a challenge for many governmental organizations, as it is based on completely different procedures and mechanisms from the usual procedures in traditional methods. The literature review shows the several advantages for implementing e-government, and the challenges and barriers that can delay the progress of implementation.

Through the pilot study which aims at identifying the fact of the e-government in Egypt and focuses on the challenges and barriers that can face e-government implementation. It shows that most of the public organizations do not realize the importance of the e-government application, and how it can improve the organizational performance. The infrastruction coverage in Egypt is in inadequate. Moreover, there is a lack of training programs for both employees and citizens, bearing in mind their resistance to change.

Accordingly, the core question for this research is: in the light of challenges and barriers that face the public sector in implementing e- government, how can the governmental organization face it and what are the ways to improve the governmental performance? And to what extent does the e-government implementation impact improving the performance of Telecom Egypt?

To answer this major question, this research intends to find answers to the following questions:

- What is the meaning of e-government and its importance? And what are the barriers that face the organizations in the implementation of the e-government?

- What is the meaning of governmental performance? And what are the types of performance measures that can be used?

- What are the methods that Telecom Egypt can use to overcome the barriers and improve its performance?

Research Importance

This research stems its importance from an important topic which is the impact of implementing the e-government on improving governmental performance. Moreover, this research is important to the academics who are interested in studying the public sector. In addition, it presents some results to the governmental organizations officials to help them in making their decisions.

Research Objectives

1- Identify the concept of the e-government and governmental performance in a way that provides a useful understanding.

2- Examine the impact of e-government implementation on improving the governmental performance.

3- Evaluate the transformation towards e-government by Telecom Egypt and find the challenges and barriers that are facing Telecom Egypt.

4- Provide some information, recommendations, and suggestions for researchers and interested parties as well as decision makers in Telecom Egypt.

Research Methodology

1- Research Design

The design of this research has both a descriptive part which is found in the theoretical part and a quantitative part which is found in the applied study. Theoretically, the researcher adopted the analytical approach to define the main concepts and importance of e-government and the barriers for its implementation, and define governmental performance and its measures. In addition, the researcher used the applied study to investigate the correlations between the implementation of e-government and governmental performance. In order to accomplish the objectives of the applied study, the researcher set out the following hypotheses:

The main hypothesis of this study is:

There is a significant positive relationship between the implementation of e-government and governmental performance. The sub-hypotheses are:

H1: There is a significant positive relationship between the implementation of e-government and the efficiency and effectiveness governmental organizations.

H2: There is a significant positive relationship between the implementation of e-government and the transparency of governmental organizations.

H3: There is a significant positive relationship between the implementation of e-government and   the service quality provided by governmental organizations.
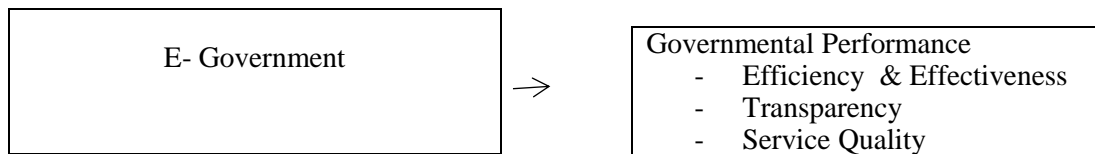
The Research Variables

The research variables are:

- The independent variable is the E- Government.
- Dependent variable is governmental performance.

Independent Variable   Dependent Variable

E- Government

$\rightarrow$

Governmental Performance
-   Efficiency & Effectiveness
-   Transparency
-   Service Quality

Population and Sample

The population of the research is the employees of Telecom Egypt in Cairo branches. The number of Cairo branches =192, the sample size is determined according to the following formula:

$$n_0 = \frac{z_{\alpha/2}^2 * p * (1-p)}{e^2}.$$

Where Z_α is the critical value of the Normal distribution at α (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96), and p is the percentage of specific phenomenon and set to be 0.5 as it gives the highest value for sample size, e is the margin error and set to be 0.05 (this an acceptable margin of error for the researcher). Then the sample size is 384 persons. To avoid non-response rate 400 questionnaires are collected.

3- Data Analysis Techniques

a- Building indicators: statistical technique to combine group of related factors in one indicator.

b- Alpha-Cronbach: The internal consistency coefficient reflects the reliability of a scale.

c- Correlation Analysis: correlation analysis aims to know the direction and the strength of a relation between two variables.

d- Simple linear Regression analysis: regression analysis aims to test the significant effect of the dependent variable on independent variables.

Literature Review:

First: The E-government

In the past, governments were viewed as complex and bureaucratic establishments, which have a lot of data, but with barriers, this resulted in making the access of data and services a cumbersome and frustrating. Nowadays, the international changes in the digital revolution led major changes on the public sector specially in working processes, organizational structures and citizen's expectations. All governments are looking for suitable information tools to respond to citizen's needs. That is why the importance of implementing e-government has become essential.

Definition of E-government

The literature offers several definitions for e-government. For example, the OECD defined e-government as the information applications and communication technologies to increase a transparency of the government actions, the accessibility of government services and data, also improve public services by responsiveness of government to new ideas (Davies, Ron, 2015). Also, (Al-Halo, 2009) sees e-government as the use of digital data to form administrative transactions and provide services to citizens. Another definition which considers e-government is the way to improve delivering services to citizens, and to the other society members through drastically changing the way governments manage the information (Accenture, 2002). (Gautrin, 2004) considers e-government as a challenge facing the government, and how it can

use technologies to improve its services that are provided to citizens. (Stiftung, 2002) agrees that e-government has the ability to improve the quality and services that are provided to citizens and attaining greater efficiency for all participants.

According to the previous definitions the researcher can define the e-government as the way which uses the data and communication technologies to create better services with more transparency and less cost.

The Importance of E- government

According to (World Bank, 2012) and (OECD - Organization for Economic Cooperation and Development, 2003) they summarized the importance of e-government as follows:

- Empowering citizens to fulfill their needs in an easy way by simplifying the data and procedures.

- Facilitating information transformation between governments and citizens.

- Increasing the transparency and efficiency which help in building trust between governments and citizens.

- Improving the quality of public services and the governmental performance.

- Better understanding of users requirements.

Stages of E-government

According to literature review such as the study of (United Nations, 2004), study of (Layne & Lee, 2001) and (Ahmad, 2009), the implementation of e-government has several stages.

Stage 1: Establishing government online presence through official sites.

Stage 2: In this stage the government sites become more dynamic, by allowing citizens to make transactions with the government electronically.

Stage 3: Is the integration stage, this involves vertical integration and horizontal integration. Vertical integration means the governments connect different functions, while horizontal integration means integration with different services.

Stage 4: In this stage the users can pay for services by using online financial transactions.

The researcher finds that these stages are different from one country to another according to the diversity of technological, social, organizational, economic, and political factors.

The Barriers to E-government Implementation

1- Technical Barriers

The major barrier in e-government implementation is the technical barriers such as lack of ICT infrastructure, privacy which is considered as a critical issue in the implementation of e-government. Also it is important to have Security systems, which means to protect all the information against any unauthorized access (OECD, 2003).

2- Organizational Barriers

This includes the lack of top management support, the resistance to change to electronic ways; (Realin, 2004) mentioned that many employees consider e-government as a threat to their positions and fear losing their jobs and power, in addition to the lack of qualified personnel and training. The e- government system can be implemented successfully if qualified personnel are available and willing to participate in and develop the e-government system (Feng, 2003).

3- Social Barriers

The first issue is digital divide, which refers to the gap between those who have access to the internet and those who cannot (OECD, 2003) because of the lack of income, necessary skills, or internet access. There are several factors that play a role in the acceptance of the idea of e-government. (Chang, 2002) identifies the factors of culture as education, religion, and languages.

4 Financial Barriers

A country's tight budget and limited financial resources are the most serious barriers to the implementation of e-government because the government's budget is already overburdened with expenses.

Second: Governmental Performance

Governmental performance is a comprehensive concept which refers to several points, such as how the government fulfills the administrative processes, also refers to the government's output, government's effectiveness, and efficiency. (Andrews, 2014) described the performance management as the policies, techniques, and strategies that are used to direct the employees and the managers towards better organization's performance. Also in the government sector, performance management focuses on managing the inputs, and results, which have clear effect on improving the performance. (Mackie, 2008) in his definition argues that government performance is an important managerial activity which promotes the performance policy and service delivery. (Kearney, 2003) considers that the government performance as the outcome that is achieved by the government and realizing pre-established objectives. Kearney focuses on some criteria in evaluating the government performance such as efficiency, effectiveness, and equity.

Therefore, the researcher concludes that government performance is an ongoing systematic approach which focuses on improving results for the citizens.

Types of Performance Measures (Probst, 2009)

There are many types of performance measures such as

1- Effectiveness measures: reflect how the output can achieve the organization objectives.
2- Efficiency measures: reflect how the organization uses its capabilities to produce outputs to achieve the organization objectives.
3- Quality measures: help the organization to know how well a service is fit for purpose.
4- Cost measures (Neely, 2007): measure the cost of outputs.
5- Process measures: measure how efficiently services are delivered.
6- Transparency measures: measure the need for clarity in the relationship with the public regarding procedures for providing services and the disclosure to the public.

Third: The E-government in Egypt

The Egyptian government adopted a new system to link its institutions together. Through this system the government can raise the level of efficiency, reduce costs, and support economic development programs.

Objectives of E-government in Egypt

<u>The first objective</u>: Serving citizens, companies, and investors through delivering the service to the applicant, speeding up tasks, raising the extent of efficiency of performance, raising the level of efficiency in providing services and transparency, and providing an encouraging atmosphere for investors and eliminating the obstacles they face.

<u>The second objective</u>: modernizing work systems in ministries and agencies through preparing an apparatus for the integration into the global system, squeezing government spending and saving expenditures, and supplying accurate and updated information.

The e-government according to the Sustainable Development Strategy (SDS) Egypt's Vision, 2030 devotes more interest in developing digital infrastructure as one of the elements of improving the quality of life of the Egyptian citizen and improving his/her standard of living. This can be done by providing all possible services to the citizen with better quality, lower cost, and less time and effort with the ability to access services from anywhere at any time.

The development of digital infrastructure is also a fundamental pillar for all axes of technological development, supporting the transformation towards a digital and knowledge-based economy, and promoting digital and financial inclusion (Egypt's Vision, 2030).

The Cabinet of Egypt issued a report in 2019 representing the progress in e-government in several points (Annual Government Report, 2019):

 - 25 new electronic services were provided through the e-government portal, and 18 government services through mobile phones, and the traffic system was deployed in 210 traffic units.

- During the year 2018/2019, 17 governmental organizations and 9 government services were linked to the government services exchange platform.

- About 8 billion Egyptian pounds have been allocated in the budgets of 2019/2020 for the information infrastructure modernization project.

The Empirical Study

Telecom Egypt Company is an Egyptian joint stock company registered in the Arab Republic of Egypt that provides public communications and services (Integrated an annual report, 2018). The main purposes of Telecom Egypt are:

- Owning, setting up, operating, and providing maintenance and development of telecommunication networks and infrastructure which are necessary for communication services.

- Providing data, voice, and video transmission for telecommunication services to serve all types of customers.

-Contributing to global communication systems, for example the submarine cables and satellites.

-Also Telecom Egypt has worked on different projects, which support the government in digital transformation (investor presentation Telecom Egypt, 2020)

- Enabling electronic payments by connecting 2600 government financial units.

- Telecom Egypt has connected 2530 schools with the Ministry of Education.

Creating Indicators

5 indicators are created in this research; these indicators represent the research variables. Each indicator is created by averaging the questions which measure this question. The following table represents the created variables:-

Table (1): Created variables of the study

Variable	Number of Questions measure the variable
Electronic government	10
Efficiency & effectiveness	5
Transparency	5
Service quality	5

Analysis of Constructs Validity and Reliability

Cronbach's alpha measure the reliability and the average of inter-item correlation to measure intrinsic validity, are presented. The table (2) presents

the result of Cronbach's alpha measure. From the following, table it is clear that the questionnaire is reliable as the Cronbach's alpha and average inter-item correlation coefficient for all items greater than 0.5.

Table (2.): Reliability of questionnaire in each category by using Cronbach's Alpha coefficient.

	Cronbach's Alpha	Average item correlation
Electronic government	0.958	0.696
Efficiency & effectiveness	0.947	0.782
Transparency	0.949	0.787
Service quality	0.959	0.824

From the table above, the numbers reflect that all the variables of the study seem to stable, reliable and valid.

Sample Characteristics (Demographic and Professional Characteristics of Respondents)

Table (3) provides some descriptive statistics of the sample to give a general view of the demographic and professional characteristics of respondents.

Table (3): Sample Description according to the Basic Characteristics of Respondents

Variable	Gender		Age				Education			
Faces	Male	Female	Less than 30	30-40	40-50	More than 50	High school	University graduates	Post grad.	Total
Number	325	75	160	116	83	41	75	289	36	400
Percentage	81.3%	18.8%	40%	29%	20.8%	10.3%	18.8%	72.2%	9%	100

Variable	Job Title		Work Duration			
Faces	Manager	Employee	Less than 5 years	5-10 years	More than 10 years	Total
Number	142	258	145	127	128	400
Percentage	35.5	64.5	36.3	31.7	32%	100

The previous table indicates that the sample consists of 325 males and 75 females, and 160 aged less than 3٠ while 116 aged 3٠-40, 83 aged 40-50, and 41 aged 50 years and above. Regarding the education 36 are post graduates while 289 are B.Sc, and only 75 are high school. Also 142 are managers and 258 are employees. Also, 145 their work duration is less than 5 years, and 127

their work duration is between 5-10, while 128 their work duration is greater than 10 years.

Descriptive Statistics of Variables of the Study

In this section, the descriptive statistics of the variables of the study are described. The descriptive analysis is comprised of the following: Mean minimum, maximum, and Standard Deviation, C.V for each question.

From the following table, we can conclude that the average of all variables are around 4 which mean tat respondents are tend to agree to most of the statement that measure these variables. The variable with highest agreement is the service quality, while the variable with least agreement is the Transparency. Also, the homogeneous variable (the variable with least variation) is E-government with coefficient of variation = 15.9%, while the variable with highest variability is service quality with coefficient of variation = 18.8%

Table (4): Descriptive Statistics of variables of the study

Descriptive Statistics					
	Minimum	Maximum	Mean	Std. Deviation	C.V
E-government	1.30	5.00	4.0523	.64602	15.9%
efficiency & effectiveness	2.00	5.00	4.0715	.67537	16.6%
Transparency	1.00	5.00	3.9550	.74388	18.8%
Service quality	1.40	5.00	4.1005	.70621	17.2%
Governmental performance	1.5	5.00	4.04	0.71	17.5%

Correlation Analysis

In this subsection the correlation analysis between the variables of the study is presented. From the following table it is clear there is positive strong (as all coefficients are positive and greater than 0.7) significant correlation between E-government and each of efficiency& effective, Transparency, and service quality, and governmental performance as overall and this with confident 95%, as the p-value associated with them less than 5%.

Table (5): Correlations Between the variables of the study

		Efficiency& effectiveness	Transparency	Service quality	Governmental performance
E-government	Pearson Correlation	.879**	.823**	.804**	.887**

	Sig. (2-tailed)	.000	.000	.000	.000
	N	400	400	400	400

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

Regression Analysis

٤ simple regression models will be used to assess the independent variable against the dependent variables. The following 3 models that will be estimated

$$\text{effective} = \beta_0 + \beta_1 * \text{E} - \text{government} + \varepsilon$$

$$\text{Transparency} = \beta_0 + \beta_1 * \text{E} - \text{government} + \varepsilon$$

$$\text{Service} - \text{quality} = \beta_0 + \beta_1 * \text{E} - \text{government} + \varepsilon$$

$$\text{Governomental performance} = \beta_0 + \beta_1 * \text{E} - \text{government} + \varepsilon$$

Where β_0 : is the constant term

β_i : is the regression coefficient for independent variable I

ε: is the regression residual term

As mentioned before normality must be checked before estimating the regression models.

Normality test

Table (6): Correlations One-Sample Kolmogorov-Smirnov Test

		Efficiency effectiveness	Transparency	Service quality	Governmental performance
N		400	400	400	400
Normal Parameters[a,b]	Mean	4.0715	3.9550	4.1005	4.0418
	Std. Deviation	.67537	.74388	.70621	.67227
Most Extreme Differences	Absolute	.238	.202	.244	.180
	Positive	.157	.191	.201	.077
	Negative	-.238	-.202	-.244	-.180
Test Statistic		.238	.202	.244	.180
Asymp. Sig. (2-tailed)		.000[c]	.000[c]	.000[c]	.000[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

The tests results which shown in the above table. , revealed that the all dependent variables are not normally distributed because the significance value of these variables are below 0.05. However, since the valid collected sample is

400 responses hence, according to Sekaran (2003), a research study sample size which is above 30 to 50 participants can run parametric tests especially in multivariate research. Moreover, running a parametric test when the data variables are normally distributed can be violated if the study's sample size is large or moderate and results can still reflect precision and accuracy.

Table (7) the results of simple regression

model	Dependent variable	constant	p-value.	B	p-value.	Adjusted R Square
1	Efficiency effectiveness	0.327	0.002	0.924	0.000	0.773
2	Transparency	0.101	0.456	0.952	0.000	0.677
3	Service quality	0.522	0.000	0.886	0.000	0.645
4	Governmental performance	0.281	0.005	0.931	0.000	0.785

-E-governmental has significant positive effect on efficiency and effectiveness at confidence level 95%, as the coefficient = 0.327, and p-value = 0.000. Also, from adjusted R squared it noticed that E-governmental has the ability to explain about 77.3% from the variation in efficiency and effectiveness dimension.

-E-governmental has significant positive effect on Transparency at confidence level 95%, as the coefficient = 0.101, and p-value = 0.000. Also, from adjusted R squared it noticed that E-governmental has the ability to explain about 67.7% from the variation in Transparency dimension.

-E-governmental has significant positive effect on service quality at confidence level 95%, as the coefficient = 0.522, and p-value = 0.000. Also, from adjusted R squared it noticed that E-governmental has the ability to explain about 64.5% from the variation in service quality dimension.

-E-governmental has significant positive effect on Governmental performance as over all, at confidence level 95%, as the coefficient = 0.281, and p-value = 0.000. Also, from adjusted R squared it noticed that E-governmental has the ability to explain about 78.5% from the variation in Governmental performance dimension.

Conclusion:

In conclusion, this research extends our understanding by using a literature review. First, the research highlights the importance of e- government and the stages of e-government implementation. Second, the research identifies how the e-government can offer better services to citizens, and improving the governmental performance.

The literature underlines that all the countries over the world have become more conscious about e-government, therefore the countries are obliged to provide it to their citizens. The empirical study examines the impact of the implementation of the e-government on the performance of Telecom Egypt.

Results:

Through the results of the survey and after reviewing the annual report of Telecom Egypt of Sep. 2020 and the annual government report (2018/2019), they indicate in general that there is a significant positive relationship between applying e-government and improving the governmental performance, which accepts the main hypothesis of the research.

According to the sub-hypotheses which are:

1 - The result of research analysis accepts that there is a significant positive relationship between the implementation of e-government and increasing efficiency and effectiveness, through the following points:

-Increasing the speed of work completion.

-Trying to raise the employee performance through training.

-Reducing employee's resistance to change through raising their awareness about the positive impacts of digital transformation.

-Organizing the daily work of the employees.

-Reducing the costs of daily work, and reduce error rates during service provision.

2- The result of research analysis accepts that there is a significant positive relationship between the implementation of e-government and transparency, through the following points:

- Publishing all the requirements and regulations for obtaining services.

- Providing the citizens the ability to track the status of their applications.

- Informing the citizens about any changes to the services provided.

3- The result of research analysis accepts there is a significant positive relationship between the implementation of e-government and service quality, through the following points:

- By using e-government there is an opportunity to reduce the time and   the cost in each service.

- Delivering the service to citizens on the specified date.

- Simplifying the procedures to increase the citizens' satisfaction.

Recommendations

The analysis of this research can be used to provide some recommendations:

1- The governmental organizations need to promote the infrastructure to be able to develop e-government application on a broader range to cover more governorates.

2- The governmental organizations should pay more attention for developing the administrative procedures and structure to achieve governmental performance excellence.

3- The government should motivate the citizen to use e-government services through raising their awareness about the positive impacts of digital transformation through media promotions

4- Telecom Egypt needs to highly focus on staff training and regular meetings to help them in using the modern tools of technology and information systems, therefore reduce or eliminate their fear of change.

Future research:

The future research can examine the impact of e-leadership on successful e-government implementation.

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Questionnaire

Dear Sir/Madam: Many thanks for finding time to participate in this study. My name is Dr. Marwa Sayed , I am lecturer at Modern Academy . This questionnaire aims to study the impact of electronic government on improving governmental performance with application on Telecom Egypt, Kindly mark the most appropriate answer in front of each statement. Your participation is highly appreciated. Please note that all the information provided by you will be treated with strict confidentiality.

First: Demographic Data:

Personal data:

Sex	Male	
	Female	
Age	Less than 30	
	From 30 to 40 years	

	From 41: 50 years	
	More than 50 years	
Educational level	High school	
	University graduates	
	Post graduate	
Experience	Less than 5 years	
	From 5 to 10 years	
	From 10 to 15 years	
	More than 15 years	
Job	Manager	
	Employee	

Second: About the reality of implementing e-government

No	Sentence	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1- Information Technology						
1	Telecom Egypt has many strategies to shift towards the application of electronic transactions.					
2	Telecom Egypt has all the Information Technology that needed in implement transactions .					
٣	There are modern computer network which has the ability to transfer information very quickly.					
٤	There is Technical support available to ensure the continued provision of electronic services.					
2- Human resource						
٥	Telecom Egypt provide the human resources and material which needed in implement electronic transactions.					
٦	The application of electronic transactions helps in improving the coordination of tasks among employees.					

٧	There is a plan for training to develop the skills and abilities of employees					
3- Electronic Control						
٨	Services procedures are reviewed before converting into electronic services.					
٩	There is a policy to ensure the safety, confidentiality and privacy of information					
١٠	There is a policy for keeping and controlling all records.					

Third: The governmental performance

No	Sentence	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1- Efficiency & Effectiveness						
1	Electronic transactions Helps to speed up the work					
2	Electronic transactions raise employee performance rates.					
3	Electronic transactions help to organize the daily work of the employees.					
4	Electronic transactions reduce the costs of daily work (paper, mail transportation, and the number of employees).					
5	Applying electronic transactions reduces error rates during service provision					
2- Transparency						
6	There are clear policies towards enhancing transparency					
7	The requirements for obtaining services and the rules and regulations for each					

	service are published					
8	Citizens are given the ability to track the status of their applications through the e-services portal through the Internet.					
9	The company is keen to know the response of the beneficiaries of the service.					
10	Beneficiaries are notified of any expected changes to the services provided electronically.					
3- Service Quality						
11	Electronic transactions help reduce the time for obtaining the services provided..					
12	Electronic transactions are obligated to deliver the service to citizens on the specified date					
13	The electronic transactions are provided in an easy way.					
14	The electronic service is properly performed.					
15	Electronic transactions increase citizens' satisfaction.					