

# Effect of Application of E-Government on the Staff

# Performance in the Greater Amman Municipality

# A Field Study

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#### Abstract

This study aims to identify effect of application of e-government with its dimensions (cost reduction, HR efficiency, transparency, and service quality) on the job performance with its dimensions (task completion, job loyalty and staff compliance) in the Greater Amman Municipality. The study uses the descriptive analytical method (theoretical and field), and (245) questionnaires were distributed to all administrative staff in the Municipality. The study shows a number of results; the most important of which are that there is an evident effect of application of e-government on the staff performance, compliance of employees with regulations and instructions, and the transactions are characterized by accuracy and quality unlike the situation in the past. The study recommends that it is necessary to increase incentives so that staff's loyalty gets greater, and that it is important to make ongoing improvement to maintain the present distinct performance level.

Keywords: e-government, staff performance, Greater Amman Municipality



# 1. Introduction

The technological changes that affected everything around us, like global networks and means of communications and information, have contributed to creating changes in all aspects of life. This has included the government institutions that suffer weakness in some aspects of their performance. It is known that no state or organization can live in isolation from the technological changes around us, since being affected is inevitable where it leads to progress and prosperity to keep up with the surrounding environment and deal with competitors. This modern technology has its own tools and trends, and more importantly is to look for ways that ensure its success and minimize, as far as possible, the negative aspects that may occur.

E-government is used by the public sector in Jordan with the aim of making change in performing their services; the most important of which is improvement of level of the public service since this is one of the significant indicator to the change aimed by the e-government in Jordan. This has driven the researcher to verify effect of e-government on staff performance in the Municipality.

This study links application of e-government to staff performance in the Greater Amman Municipality which is considered one of the most important institutions in Jordan, where the study considers the staff performance as the feedback of reflections of application of e-government. This is because performance is one of the outcomes that reflect success of an organization, where success of employees means the success of the organization. This success is embodied in their ability to understand the new technical work methods, and the new task including its challenges to such change, where this is significant to achieve high class performance and create new relationships that operate on team spirit basis.

This study will show results hopefully they will have great effect in clarifying the paradigm shift created by the government in performing its services, and extent of success achieved due to such changes.

It is to be noticed that the e-government program in the Hashemite Kingdom of Jordan is considered a national program upon initiative of His Majesty King Abdulla II. This program aims at improving traditional government performance so that time and cost are minimized when performing transactions, and satisfaction of receiver of such services is achieved. As to the overall goal, to get rid of the stereotyped image existing in the government departments and change perception of citizens to performance of government institutions.

#### 2. Significance of the Study

This study is significant since it deals with an important matter for all employees and clients. The subject of e-government is considered one of the significant steps to create paradigm shifting improving performance of the public institutions that are considered a key indicator to development of Jordan, and its care for achieving interests of citizens and employees without distinction. Theoretically, this study presents a subject on significance of application of e-government as a new means in the government institutions which has been produced due to the information developments witnessed in the rapidly growing technological revolution. Practically, this study serves the decision-makers to benefit from the results of this study to develop improvements to make the change process in the Greater Amman Municipality successful.

# **3.** Objectives of the Study

• To identify perception of respondents to level of application of e-government and its effect on their performance



- To identify level of application of e-government in one of the most important Jordanian institutions.
- To identify level of job performance in the Greater Amman Municipality.
- To provide recommendations to bridge the gap if any negative aspects appear due to this application.

### 4. Problem of the Study

Application of e-government in ministries and government departments has lofty goals that aim to achieve economic and social development, where Jordan has endeavored to keep pace with developments, improve services and elevate efficiency of the public sector by promoting competitiveness. The primary concern is to facilitate all public transactions and services to become more effective and transparent to facilitate communication between the service provider and receiver. This is to be made by improve skills of the public employee to provide service and required information in a high accurate and safe manner, in short time and in a high quality. This change has increased challenge to employees at all levels to accept change and shift to quick performance and improve reaction between provider and receiver of the service. The staff performance will constitute an important point to evaluate success of e-government in providing services through measuring the staff performance.

Hence, the purpose of this study will be clarified by answering the following questions:

4.1 What is the level of provision of services by e-government in Amman Greater Municipality?

4.2 What is the level of the staff performance in the Greater Amman Municipality due to application of e-government?

4.3 What is the effect of application of e-government on the staff performance in the Greater Amman Municipality?

#### 5. Hypotheses of the Study

#### 5.1 The 1st Main Null Hypothesis

There is no statistically significant effect at the significance level (0.05) for perceptions of respondents about application of e-government as a dependent variable with its dimensions (cost reduction, human resources competence, transparency, and service quality) on the staff performance with its dimensions (task completion, job compliance, and job loyalty).

#### This following sub-hypothesis is derived from the 1st null hypothesis:

1st null sub-hypothesis:there is no statistically significant effect at significance level (0.05) for perceptions of respondents about cost reduction on staff performance in the Greater Amman Municipality.

2nd null sub-hypothesis:there is no statistically significant effect at significance level (0.05) for perceptions of respondents about HR efficiency on staff performance in the Greater Amman Municipality.

3rdnull sub-hypothesis:there is no statistically significant effect at significance level (0.05) for perceptions of respondents about application of transparency on staff performance in the Greater Amman Municipality.

4thnull sub-hypothesis:there is no statistically significant effect at significance level (0.05) for perceptions of respondents about the service quality on staff performance in the Greater Amman Municipality.



6. The Study Model



# 7. Procedural Definitions

7.1 E-government: to provide government services using technological means instead of the traditional manner for quickness and accuracy, which relates to the following aspects: Cost reduction, HR efficiency, transparency and service quality, which will be procedurally measured through:

7.1.1 Cost reduction: to minimize the government costs through business procedures, reduction of repeated information due to organizing the procedures, minimizing dependence on paperwork, electronic transfer of the approved forms between the government departments to reduce movement and all elements in connection with cost.

7.1.2 HR efficiency: to develop employees through the opportunities provided by the government to improve their skills to achieve greater levels of productivity and support the best performance.

7.1.3 Transparency: the ability of the e-government to present a clear image about all government procedures and operations and how employees are characterized by integrity, objectivity and impartiality. Visible treatment between government and citizens and to improve trust between both parties through ensuring smooth performance of services of e-government and its information to serve interest of citizens and facilitate established procedures and minimize errors and forgery which enhances accountability and transparency.

7.1.4 Service quality: level and quality of services, website and content that should exceed expectations of clients of the Municipality, like accuracy, quickness and response to inquiries when providing service.

7.2 Staff performance: the ability of individuals to complete works entrusted to them effectively to achieve objectives of an organization which are procedurally measured through:

7.2.1 Task completion: the process in which services are rendered, and which reflects willingness of staff to complete their works shortly, timely and accurately.

7.2.2 Job loyalty: a behavior that expresses loyalty of staff to their institutions and their dedication to work and transferring good image about their organization.



7.2.3 Staff compliance: to comply with instructions and regulations on work, observe working hours, comply with instructions and endure the work pressure.

### 8. Theoretical Framework and Literature

E-governments important for modern organizations where it contains enormous benefits when performing works, and how its application reflects on job performance of employees which indicates to achievement of higher levels compared to the organizations that have not applied the e-government yet. It is important to differentiate between concepts of e-management and e-government (Kafi, 2012); e-management means to transform all traditional administrative business and services (extended procedures using paper) into electronic business and services that are performed quickly and accurately using management technique which is called (Paperless management). (Kafi) adds that the e-government deals with the inclusive and integrated framework of the electronic applications in the administrative area at level of all parties of the administrative work is the pre-step to apply concept of e-government in the government departments.

#### 8.1 Government:

E-government is not an end; rather it is an empowerment tool, where integration between government and technology must serve interest of the public. It is not confined to making formal changes in methods of provision of governmental transactions and services and public benefits of citizens, rather there is the so-called restructuring of governmental activities, operations and procedures in order to support development and reform sought by the governments (Basyoni, 2008, pp.36-38), he adds that " e-government is not simply computerizing of government records, rather its main goal is to change work of the government".

8.1.1 Updating of government is not only a transformation to provide services via internet, rather it means:

Providing services effectively and easily, Getting rid of solid and restricting regulations, providing a suitable work environment and encourage innovation, Encouraging employees and clients, According to the World Bank, e-government means "Information technologies that have the ability to transform relations with citizens, businesses, and other arms of government, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions".

According to UNESCO"E-governance is the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective".

According to (Ahmad, 2008, p: 79) "Producing and distribution information within 24 hours/day and seven days/week in a manner that is based on fulfillment of needs of citizens and business".

According to the Arab Administrative Development Organization "The use of wider information and internet and using mobile phone to have the ability to change relationships with citizens, businessmen and different government institutions". (Basyoni, 2008, p: 45).

According to the above definitions, it is obvious that e-government does not mean computerization of the government system, rather it means the ability of technology to



achieve higher level of improvements in variety of areas of activities and government managements so that it can change policies and relationships between governments and citizens.

### 8.2 E-Government Goals(Ahmad, 2008, pp: 82-83)

Goals of e-government initiatives differ from a counter to another depending on different historical experiences of countries and the economic-social level that is certainly reflected on purposes and trends of e-government projects. The following are some goals that may be achieved from the e-government projects:

- To provide highly reliable information and enhance transparency.
- To fulfill the citizens' needs by the government by providing the information they need.
- To save time, money, resources, and promote relations between citizens & and investors and the government departments.
- To improve quality of public services through achieving standards quality measurement standards.

To increase IT knowledge and skills among users of community members.

#### 8.3 Challenges Facing the Construction of E-government (Basyoni, 2008, p: 75)

There are many challenges facing construction of e-government since it seeks to make an inclusive change in the service delivery method, it is a transformation from the traditional method to a method that relies in all of its stages on the advanced technology, these challenges include:

Providing infrastructures, Defining suitable goals and strategies, Problems related to transformation into the e-environment, Providing information, forms and documentation,

Problems related to trade exchanges and provision of technical and regulatory means, Legal challenges and legislation necessary for electronic works, Relationship between the governmental agencies and individuals in all areas and sectors, Documents, transactions, fees, tenders, security of correspondences and transactions, authentication of electronic contracts, and authentication of proof by electronic means.

8.4 Stages of Transformation into E-government (Ahmad, 2009, p: 72)

Transformation into E-government requires many issues, including:

- Satisfaction and support of senior management: where complete satisfaction and deep vision must be provided to transform all paperwork to electronic works where such project needs full support.
- Training and Rehabilitation of Staff: this stage requires training and rehabilitating the employees on performing works using available electronic means, and this requires holding courses for all employees.
- Providing infrastructure for e-government: This means the tangible aspect like computers, connection of fast networks and modern means of communication.
- Starting to document old (paper) transactions: to keep paper files electronically by scanners and to classify them properly.



8.5 Advantages of E-government (Zaki, 2009, pp: 24-25)

Transparency: where it provides information on all governmental activities and posts laws and regulations on internet, makes information on procurement available on internet with the aim of equality among all suppliers.

Expenses reduction: to minimize number of employees who work on keeping, copying, transferring and distributing paperwork which saves efforts and minimizes cost of a lot of traditional transactions.

Increasing quality of e-services through providing services via internet, which allows citizens to access to services at any time and from anywhere, to perform transactions quickly, and to eliminate individual differences in staff performance to prevent negative services.

Citizens are able to recover information quickly which enhances relationship with citizens.

Integrating with governmental organizations via rapid communications that connect these organizations with each other which saves time and effort of citizens.

Reducing the phenomenon of administrative corruption by making data and information available on internet and giving citizens the right to accountability as for the decisions made by managers, which supports the popular control pertaining to public opinion.

### 8.6 E-Government Advantages (Khamayseh, 2013, pp: 88-89)

To obtain required information quickly and accurately and in a legal and systematic manner (not for smart people only).

To deliver services to citizens where they are despite the geographical distance, which helps to provide a non-centralized services.

Citizens can complete their transactions via internet using the smart cards which contribute to saving time that is wasted in filling required forms.

To reduce number of visits to the governmental departments to give citizens opportunities to promote productivity at personal and national levels.

#### 8.7 E-government Disadvantages:

Khamayseh (2013, p: 92) mentioned some disadvantages that may be faced in applying e-government, including:

Cybercrimes, high cost of preparing infrastructure which is an essential requirement, and it is difficult to employ experienced and skilled people to apply the e-government.

Unemployment: where electronic devices are relied on instead of man which affect labor market, and where some companies are planning to keep only 20% of the available workforce.

Social disintegration: reduction of public communication among people, due to full reliance on informatics, decreases the social relationships.

Work pressure: depending on IT leads to increasing quantitative burden of the job resulting from anxiety of inability to keep pace with developments in IT.

High cost of construction of e-government project: construction of e-government project requires special budget to create this transformation like infrastructure, supportive services, training and rehabilitation, which burdens budgets of the state.

The researchers think that application of e-government is a very important matter, despite



some disadvantages mentioned above. However, the above advantages are sufficient to adopt the application in order to achieve progress and prosperity, and to provide a service characterized by quality and quickness at all times and places in order to achieve satisfaction of staff and clients.

### 8.8 Staff Performance:

Job performance is considered an indicator for achievement of general and special goals of the organization by the employees. Accordingly, this affects decisions on retention, promotion and change workplaces of such employees in order to become more effective (Sabbagh, 2010), and this will lead to determination of strengths and weaknesses of employees.

Job performance means a set of activities and works under a certain job description where an employee seeks to exploit all of his abilities, skills and knowledge to perform them and achieve desired results. (Aqeel, 2006).

According to (Salem, 2014, p: 238) job performance means " to analyze the individual's performance; psychological, physical, technical, behavioral or intellectual qualities with the aim of identifying strengths and weaknesses in order to promote the former and address the latter as a guarantee to develop staff performance and achieve efficiency of the organization".

According to (Dura and Sabbaqh, 2010, p: 25) job performance means " the process of judging staff performance and their behavior at work, which leads to making decision on retention or promotion of staff, or transferring them to another work inside or outside the organization, degrading them financially, training and rehabilitating them, or dismissing them"

# 8.9 Main Elements of Staff Performance:

Job Compliance: This means to integrate an employee into his organization which increases sense of loyalty, reduces gap between values of an organization and an individual and abandons any values in conflict with the organization.

According to (Allen and Mayer, 2004), elements of the job compliance is an emotional compliance, standard and continuous commitment. If such commitments are found in simultaneous and integrated manner, and individual will be characterized by the highest level of job compliance that is followed by success.

Job loyalty: the degree of connection of an individual to the organization which is shown through the desire and continuation in work, where emotional connection is stronger than the need for incentives and benefits. This emotional connection indicates the loyalty which leads to achieving an organization's goals and establishing a strong relation with it (Abd Al-Baqi, 2004).

Job discipline: to observe rules and standards of behavior inside the organization. Discipline may be self-discipline or imposed by the organization's management to prevent and breach of the code of conducts. This requires the penalty rules in the organization to be clear, and the management should work fairly and evidently to achieve this. (Aqlan, 2006).

8.10 (Dura & Sabbagh, 2008) states that there elements of performance, including:

Employee's hidden contents: which mean the employee's information, trends, values and skills which activate performance to the fullest.

Work characteristics: tasks, obligations or functions required by the individual's job which are determined by the job analysis.



Regulatory environment: internal effects that contain mission, management, plan, regulation, control methods and strategic status of the organization, while the external effects are the regulatory environment which represent the factors that are out of control, i.e. the economic, social, political, and technological factors as well as globalization and trade unions.

Employee: the individual with his desire to work, and the culture, knowledge, skills, academic qualifications, experiences, trends and qualities he has which motivate him to work.

Job: responsibilities, obligations, activities and tasks that embody a role or several roles.

Position: This means the work atmosphere like direction, control, human and financial resources, organizational structure and relationships.

#### 8.11 Job Performance Determinants

(Ghusain, 2012) mentions that performance in a certain situation is a result of overlapping relationship among:

Exerted effort: amount of energy exerted by an employee to perform task of his work. It is connected to motivation strength. Activity is measured by motivating the individual before and after performance compared to the mental and physical energy exerted by the individual to perform his tasks.

Abilities and experiences of individual: this includes level of education, training on the programs related to the job, knowledge, and years of experience in this area.

Realization of the Job Role: familiarity with job and how an individual imagines the tasks related to his career and the how to perform his role in the organization.

#### 8.12 Environmental factors affecting job performance:

There are external factors not under control of the individual which affect the individual's performance level (Hasan, 2001, p: 2012), which are the material needs like the light, distractions, machines, equipment, mood, weather, academic level, control, laws and legislation, organization, training and guidance.

#### 8.13 Job performance improvement:

Performance improvement is considered an important goal for the organization, since improvement leads to change and quest for the best, where this will lead to achieving the organization's goals successfully, (Jaber, 2010) determines three elements to improve performance, namely:

Employee improvement: where improvement of an employee should be the first step since the desire to change should come from inside and this improvement is achieved by: focusing on the strengths of employees and developing them. Balancing between what an employee wishes to do and the tasks he is distinguished by: where an individual performs his work effectively if he loves his work. Connecting the best performance with the individual goals: where method of development of performance is consistent with the employee's concerns which increase the required improvements for interest of the job.

Job Improvement: different functional tasks give an opportunity to develop performance if abilities and skills of an employee contradict the work duties, so the job scope should be expanded and enriched through providing it with more tasks and increasing level of responsibilities entrusted to the employee.

Position Improvement: Position affects behavior of an individual depending on knowledge,



skills and abilities he has. So, improvement of position requires knowing the organizational structures, method for building a team, determination of responsibilities and powers, knowing efficiency of all communication ways among departments and feedback. At this point, we can benefit from technology where it gives results faster than the traditional ways.

# 8.14 Performance evaluation goals:

(Salem, 2014: p: 239) states that the goals of evaluation of performance at the organization level aims to form a climate of trust, and he adds that goals of performance evaluation can be divided into three levels:

At the organization level: to form a climate of trust between management and employees. Objectivity and justice is the basis of evaluation, evaluation of HR management programs and methods, systematic documentation of development of staff performance in line with laws help evaluate validity of the established HR management methods.

At the director's level: To identify performance of an employee on a scientific and objective basis which drives the manager to strengthen his skills in the evaluation process. Evaluation process is an excellent method to increase familiarity between the manager and the employee.

At subordinates level: To inform them that their efforts will be evaluated. This develops behavior of employees and their surrounding environment.

According to (Elayyan, 2007), evaluation of staff performance is an essential function to manage performance in the organization where it means" measurement of strengths and weaknesses in completion of a job tasks within a specific period of time and under certain standards".

### 9. Previous related studies in Arabic

# 9.1 Awameleh and Ryalat (2014) "The Effect of IT Outcomes on Government E-services in Jordan"

This study aimed to identify effect of IT outcomes on government E-services in Jordan, and to suggest a model that clarifies the relationship between IT outcomes and the Jordanian governmental e-services. To achieve objectives of the study, the researcher used the descriptive method. The study sample was a stratified sample composed of (350) respondents from different ministries and governmental departments. The study recommended that it is necessary to promote concept of e-government services and motivate role of official media in this subject to ensure access to the largest number of citizens to be informed of the subject and to train and prepare employees of the public sector in a sufficient manner in order to enable them to develop themselves, and their thinking methods and works at the same time. Further, to train on the modern technological means to have effective administrative decisions that are consistent with the reality.

# 9.2 Shamari (2013): "The Use of IT and its Effect on Efficiency of E-Government Portal in Kuwait Customs Department".

This study aimed to identify effect of use of IT on efficiency of e-Government portal in Kuwait Customs Department. 89 questionnaires were distributed. The study showed the following most important results: there is an effect for use of IT (material devices, software, data, individuals, networks and communications) on efficiency of applications of e-government portal at the Kuwait Customs Department. The study recommended that modern and sufficient IT elements must be adopted so that they provide easy documentation, easy presentation, and interaction between the system and users internally and externally.



9.3 Balbisi (2012) "Quality of Career Life and its Effect on the Job Performance of the Employees in NGOs at Gaza strip"

This study aimed to identify the quality of career life and its effect on the job performance of the employees in NGOs at Gaza strip. The study was applied at 53 organizations and 265 questionnaires were distributed. The results of the study showed that: the NGOs in Gaza strip enjoy high quality career life, and that performance of employees in NGOs is characterized by high efficiency and high level. The study recommended that career life should be improved through focusing on job security, promotion chances, progress, wages, remunerations and compensations, and the employee's welfare.

# 9.4 Mashaqba (2012): "The Effect of Use of E-Government on Improvement of Performance of the Civil Status and Passports Department in Jordan"

This study aimed to identify effect of use of e-government on performance of the Civil Status and Passports Department in Jordan. 145 questionnaires were distributed to mangers and head of departments. The study recommended that managers and employees' awareness should be deepened to upgrade performance of distinct services, necessity of development certain grounds to join training courses by all employees working in directorates of the department without exception. The study also recommended that different means for uses of the e-government should be provided like the internet, to reinforce direction factors and e-booths to obtain the best services, to hold training courses on management information systems since they have significant effect on development and improvement of performance.

# 9.5 Qahtani (2010) "Application of E-government and its Rolein Administrative Development in the General Directorate of Civil Defense"

This study aimed to identify extent of application of e-government and its role in administrative development in the General Directorate of Civil Defense. The researcher used the descriptive survey method. The study population consisted of all police officers working at the General Directorate of Civil Defense (356 police officer). The researcher selected a random sample of the study population where (187) questionnaires were distributed and recovered for statistical analysis purposes. The results of the study showed that there was consensus among the sampling units that there were obstacles for application of e-government to achieve the administrative development in the General Directorate of Civil Defense. In the light of results, some recommendations were provided: it is important to provide qualified workforce to activate the e-government and maintain required devices and software, and to insist on application of e-government at the General Directorate of Civil Defense.

# 9.6 Zubi (2008), "The Effect of Compliance with the Cultural and Regulatory Values on Job Performance of the Public Officials in Karak Governorate".

This study aimed to identify effect of compliance with the cultural and regulatory values on job performance of the public officials in Karak Governorate. Questionnaires were distributed to 421 employees. The most important result of the study was that there was statistical effect for compliance with dimensions of the individual cultural values (charitable, leadership and compliance values) on job performance level. The study recommended to review the salary and wages system and to encourage employees to give their opinions and suggestions and that their personal opinions should be taken into account.



# **10. Studies in Foreign languages**

10.1 Al- Jamal & AbuShanab (2015) E- Government adoption in Jordan: "The influence of age"

This study aimed to identify effect of age on adaption for use of e-government, where age is effected by its ability to adapt to use technology and modern developments in the organization, where the objective of technology is to facilitate transactions of individuals to a great extent. The results showed that individuals have a great desire to use e-government services; however, age is considered an obstacle. The study showed that the less the age is, the desire to the electronic use is greater. The study recommended promoting level of access to the knowledge and skills necessary for benefiting from e-government through use of ICT, and that the government should take care of the citizens through holding seminars, workshops and training courses to focus on benefits of use of e-government, especially the aged people, and to seriously work on raising their awareness.

10.2 Al-Saqqa, 2014&Ghnemat Rababah, Moh'd Al-Shboul, Challenges and Factors Affecting the Implementation of E-Government in Jordan

This study aimed to indentify the factors affecting use of e-government in the developing countries, specifically Jordan, where it dealt with the factors and challenges that affect application of e-government in Jordan. To achieve objectives of the study, semi-codified interviews were conducted to collect data from 12 government ministries (Ministry of Information and Communication Technology, the Ministry of Planning and International Cooperation, Ministry of Interior, the Ministry of Industry and Trade, the Ministry of Higher Education and Scientific Research, the Greater Amman Municipality, the Department of the Chief Justice, the Central Traffic Department, Higher Education Accreditation Committee, Admissions and Coordination Unit, Department of Statistics, and Telecommunications Regulatory Commission). 36 people participated in these interviews which were conducted within face-to-face meetings or via telephone calls.

The results of the study showed that the challenges that affect the e-government are the budget, financial cost, human experiences, technological development, and resistance of change by citizens, and privacy and security of data.

The study recommended that use of e-government is a reform and restructuring process no just computerization of electronic processes, and that awareness of employees and clients should be raised, and that the private sector should be engaged in the e-government where it may be a source for cost sharing and to benefit from experiences.

# 10.3 SHANNAK2013The impact of e-government implementation on the organizational structure: the case of Jordan

This study aimed to identify level of application of e-government and the changes in the organization structure to serve citizens optimally. Data were collected through the interviews conducted with the employees in The Ministry of Information and Communications Technology, and the Ministry of Education, and Income Tax Department. The study concluded that the e-government application level is traditional i.e. between 2nd and 3rd level. Thus, the study recommended using the electronic signature and e-documents to complete the governmental transactions.

10.4 Alomari, Woods, Sandhu, 2012 Predictors for e-government adoption in Jordan: Deployment of an empirical evaluation based on a citizen-centric approach.

This study aimed to identify extent of prediction of the e-government and its adaption in



Jordan by citizens. Several factors affecting intention of citizens in adoption of e-government was studied. The most important factors were: extent of use of e-government, trust of government, designing websites, and beliefs and trends.

To conduct the study, survey study was conducted for 400 Jordanian citizens from users of internet and e-government websites. The study concluded that there is a need to develop a central governmental website and that the links should be updated, and the websites must be designed in attractive and consistent manner where the website clarifies how to move between pages and to give clear description of steps of transaction.

# 10.5 Navarro et al. (2012): Factors affecting the use of E- Government in the Telecommunications Industry of Spain

This study aimed to identify the factor that effect of e-government in telecommunications industry in Spain. The study stated that the e-government is one of the main keys in success of the public sectors, since it is one of the most important tools to achieve transparency and accountability through a mutual relation between the citizen and the governmental tool. The descriptive analytical method was used and 121 questionnaires were distributed to 121 communications firms. The results showed that there is a clear gap in use of the e-government, and that the most important factor that affects use of e-government is size of work. The study recommended focusing on quality of IT and its tools to ensure efficiency of use of e-government.

### 10.6 Qawasmeh Study (2011) Assessment of the Jordanian E-Government: an empirical study

This study aimed to evaluate e-government and identify extent of use of internet in delivering e-services, and identify extent of quality of websites of the Jordanian ministries and governmental institutions. The most important result of this study is that the websites are not more than information delivered to citizens. The study recommended that there should be interaction between the citizens and e-government even if this requires endeavors to improve the website to reach high quality.

# 10.7 Kheradmand et al (2010) The Relation between Quality of Work Life and Job Performance.

This study aimed to identify the relation between quality of work life and the job performance using a questionnaire distributed to 35 employees of DadevarzJooyain Iran, where the descriptive method was used. The most important results: the necessity to provide high quality work life which leads to reducing absence rate, accidents, complaints and resignations, otherwise, the development chances and social relationships in the company would decrease, and the job role and objectives will be ambiguous. The study recommended increasing salaries and benefits of the employees since they are insufficient, and to motivate managers through assigning a portion of profit for them and to provide a safe work environment for employees like light, heat, etc.

# 10.8 Abuali et al.(2010): Factors and Rules Effecting in E-Government in Jordan

This study aimed to identify the factors that affect efficiency of application of e-government and its tools and determinants in different areas. This study used the descriptive analytical method. The most important results of this study: there is acceptable readiness to apply e-government in ministries and all main requirements to apply the e-government. The study recommended that consideration should be given to the tools and means related to e-government, and it highlighted the importance of training of users on the websites and other applications in connection with e-government.



# **11. Methodology of the Study**

Having reviewed the previous researches and studies related to the subject matter of this study which promoted the theoretical framework, the information was gathered from the field using a questionnaire that was developed and refereed with the aim of identifying effect of application of e-government on performance of employees in the Greater Amman Municipality.

*The Study Sample*: it is composed of all administrative staff in the Greater Amman Municipality, where (250) questionnaires were distributed, and (5) questionnaires were excluded, where (245) questionnaires valid for analysis remained.

*Description of the Sample features*: This part contains the identifiable features of the sampling units, where frequencies and percentages of the demographic factors were used as follows:

Variable	Category	Number	Percentage
Sex	Male	145	59.2
	Female	100	40.8
	Total	245	100.0
Age	Under 30 years old	54	22.0
	30-40 years old	127	51.8
	40-50 years old	52	21.2
	50 years old and over	12	4.9
	Total	245	100.0
Qualification	High school certificate or less	64	26.1
	Diploma	69	28.2
	Bachelor	94	38.4
	Higher diploma	18	7.3
	Total	245	100.0
Experience	5 years and less	26	10.6
	5-10 years	62	25.3
	10-15 years	81	33.1
	15 years and over	76	31.0
	Total	245	100.0

Table (1), description of the sampling units in terms of demographic variables

The table shows that percentage of males is greater than the females, and this is normal in some governmental organizations, and this may be attributable to the early retirement of females given their great burdens. The age group show the greater number of employees is 30-40 years old and that the lower group is 50 years old and over depending on retirement system adopted in the Civil Service Bureau. As for the academic qualifications, the holders of bachelors ranked first at 38.4, which is the first university degree needed for hiring, and this matches with the administrative hierarchy in organizations where the number increases when we approaches the base of hierarchy. As for experiences, their portions are close with low portion for 5 years and less, and the greater experience is (10-15 years) where this category's portion is (33.1), and this is normal depending on seniority.



# 11.1 Testing Tool Reliability

Results of Cronbach's alpha table for testing reliability of the tool show that it is statistically acceptable where the value of Cronbach's alpha is greater than 0,60 and internal consistency coefficient for variables and dimensions of the study was measured as shown in the table below:

Table (2) results of reliability of areas of application of e-government in Amman Greater Municipality (Cronbach's alpha)

No.	Areas	Number of items	Cronbach's alpha
1	Cost reduction	5	0.866
2	Increase of staff efficiency	7	900.0
3	Transparency	4	0.867
4	Service quality	6	0.898
	Total	22	0.953

Table (2) shows that areas of application of e-government in the Greater Amman Municipality have high values of internal consistency where the total degree of the activity areas is (0,953), and Cronbach's alpha is (0, 866) for cost reduction area, (0,900) for increase of staff efficiency, (0,867) for transparency area, and (0,898) for service quality area. All these values are considered suitable and sufficient for the purposes of this study and they indicate to suitable reliability values where their total is greater than 0,60.

Table (3) results of reliability of areas of application of e-government in Amman Greater Municipality (Cronbach's alpha)

No.	Areas	Number of items	Cronbach's alpha
1	Task completion	9	0.927
2	Job loyalty	4	0.897
3	Staff compliance	5	0.901
	Total	18	0.950

Table (3) shows that areas of application of e-government in the Greater Amman Municipality have high values of internal consistency where the total degree of the activity areas is (0,950), and Cronbach's alpha is (0, 927) for job loyalty area, and (0,897) for staff compliance. All these values are considered suitable and sufficient for the purposes of this study and they indicate to suitable reliability values where their total is greater than 0, 60.



11.2 Statistical Treatment- analyzing questions of the study

No.	Areas	Arithmetic mean	Standard deviation	Relative importance	Level	rank
1	Cost reduction	3.64	0.88	72.80	Medium	1
2	Service quality	3.47	0.84	69.40	Medium	2
3	Increase of staff sufficiency	3.36	0.91	67.20	Medium	3
4	Transparency	3.24	0.98	64.80	Medium	4
	Total	3.43	0.78	68.60	Medium	

Table (4) arithmetic means and standard deviations for areas of application of e-government in Amman Greater Municipality in descending order:

Table (4) shows that application of e-government in the Greater Amman Municipality is medium, where arithmetic mean is (3.43) and the relative importance is (68.60), and the level of areas is medium, where arithmetic means are (3.24-3.64). Cost reduction area ranks first with arithmetic mean at (3.64) and relative importance at (72.80), the transparency area ranks last with arithmetic mean at (3.24) and relative importance at (68.80).

Table (5) arithmetic means and standard deviations for areas of staff performance in Amman Greater Municipality in descending order

No.	Areas	Arithmetic mean	Standard deviation	Relative importance	Level	rank
1	Staff compliance	3.54	0.87	70.80	Medium	1
2	Task completion	3.46	0.85	69.20	Medium	2
3	Job loyalty	3.42	0.95	68.40	Medium	3
	Staff performance	3.47	0.79	69.40	Medium	

Table (5) shows that staff performance in the Greater Amman Municipality is medium, where arithmetic mean is (3.47) and the relative importance is (69.40), and the level of areas is medium, where arithmetic means are (3.42-3.54), staff compliance area ranks first with arithmetic mean at (3.54) and relative importance at (70.80), the job loyalty area ranks last with arithmetic mean at (3.42) and relative importance at (68.40).

# **12. Testing Hypotheses**

# 12.1 The 1st Main Null Hypothesis

There is no statistically significant effect at the significance level (0.05) for perceptions of respondents about application of e-government as a dependent variable with its dimensions (Cost reduction, human resources competence, transparency, and service quality) on the staff performance with its dimensions (Task completion, job compliance, and job loyalty).

To verify this hypothesis, regression analysis is used, where the following table shows results of this analysis:



Table (6) results of linear regression analysis on application of e-government on the staff performance

Independent variable	r	R <sup>2</sup>	F	Sig f	β0	В	t	Sig t
Application of e-government	0.748	0.559	308.20	0.000*	0.881	0.758	17.55	0.000*

The results show that there is a significant effect for application of e-government on the staff performance. The relation value between the two variables is (0,748) where this value is statistically significant since the value of calculated (f) (308.20) is statistically significant at significance level (0,000) which is less than (0,05), this result indicates to the importance and effect of application of e-government on the staff performance.

The results show values of coefficient (B) and effect of application of e-government on the staff performance in the regression model where value of this effect is (0,758).

Value of (t) shows the linear importance of the coefficient (B), where value of significance level (0,000) is less than (0,05), where the value of coefficient reached is considered significant.

Values of (R2) show ratio of difference of the dependent variable that can be explained through the dependent variable where this ratio is (55.0%), this ratio shows extent of the independent variable in predicting the dependent variable.

According to this result, the 1st null hypothesis of the study is rejected and the alternative hypothesis is accepted, i.e. there is an effect for application of e-government on performance of employee in the Greater Amman Municipality.

12.2 This following sub-hypothesis is derived from the 1st null hypothesis:

12.2.1 1st null sub-hypothesis: there is no statistically significant effect at significance level (0.05) for perceptions of respondents about cost reduction on staff performance in the Greater Amman Municipality.

To verify this hypothesis, regression analysis is used, where the following table shows results of this analysis:

Table (7) results of linear regression analysis on effect of cost reduction on application of e-government on the staff performance

Independent variable	R	<b>R</b> <sup>2</sup>	F	Sig f	β0	В	Т	Sig t
Cost reduction	0.596	0.355	133.77	0.000*	1.513	0.538	11.56	0.000*

(\*) indicates the existence of a statistically significant relation

The results show that there is a significant effect for cost reduction of application of e-government on the staff performance. The relation value between the two variables is (0,596) where this value is statistically significant since the value of calculated (f) (133.77) is statistically significant at significance level (0,000) which is less than (0,05), this result indicates to the importance and effect of cost reduction of application of e-government on the staff performance.

The results show values of coefficient (B) and effect of application of e-government on the staff performance in the regression model where value of this effect is (0,538).

Value of (t) shows the linear importance of the coefficient (B), where value of significance level (0,000) is less than (0, 05), where the value of coefficient reached is considered significant.



Values of (R2) show ratio of difference of the dependent variable that can be explained through the dependent variable where this ratio is (35.0%), this ratio shows extent of the independent variable in predicting the dependent variable.

According to this result, the null hypothesis of the study is rejected and the alternative hypothesis is accepted, i.e. there is an effect for application of e-government on the staff performance.

12.2.2 2nd null sub-hypothesis: there is no statistically significant effect at significance level (0.05) for perceptions of respondents about HR efficiency on staff performance in the Greater Amman Municipality.

To verify this hypothesis, regression analysis is used, where the following table shows results of this analysis:

Table (8) results of linear regression analysis for effect of HR efficiency on the staff performance

Independent variable	r	R <sup>2</sup>	F	Sig f	β0	В	Т	Sig t
HR efficiency	0.638	0.407	166.80	0.000*	1.592	0.565	12.91	0.000*

(\*) indicates to existence of a statistically significant relation.

The results show that there is a significant effect for HR efficiency of application of e-government on the staff performance. The relation value between the two variables is (0,638) where this value is statistically significant since the value of calculated (f) (133.77) is statistically significant at significance level (0,000) which is less than (0,05), this result indicates to the importance and effect of HR efficiency on the staff performance.

The results show values of coefficient (B) and effect of HR efficiency of application of e-government on the staff performance in the regression model where value of this effect is (0,565).

Value of (t) shows the linear importance of the coefficient (B), where value of significance level (0,000) is less than (0, 05), where the value of coefficient reached is considered significant.

Values of (R2) show ratio of difference of the dependent variable that can be explained through the dependent variable where this ratio is (40.7%), this ratio shows extent of the independent variable in predicting the dependent variable.

According to this result, the null hypothesis of the study is rejected and the alternative hypothesis is accepted, i.e. there is an effect for HR efficiency in application of e-government on the staff performance.

12.2.3 3rd null sub-hypothesis: there is no statistically significant effect at significance level (0.05) for perceptions of respondents about application of transparency on staff performance in the Greater Amman Municipality.

To verify this hypothesis, regression analysis is used, where the following table shows results of this analysis:



Table (9) results of linear regression analysis for effect transparency of e-government on the staff performance

Independent variable	R	$\mathbb{R}^2$	F	Sig f	β0	В	t	Sig t
Transparency	0.674	0.455	202.76	0.000*	1.699	0.547	14.23	0.000*

(\*) indicates to existence of a statistically significant relation

The results show that there is a significant effect for transparency of application of e-government on the staff performance. The relation value between the two variables is (0,674) where this value is statistically significant since the value of calculated (f) (202.76) is statistically significant at significance level (0,000) which is less than (0,05), this result indicates to the importance and effect of transparency of e-government on the staff performance.

The results show values of coefficient (B) and effect of HR efficiency of application of e-government on the staff performance in the regression model where value of this effect is (0,547).

Value of (t) shows the linear importance of the coefficient (B), where value of significance level (0,000) is less than (0, 05), where the value of coefficient reached is considered significant.

Values of (R2) show ratio of difference of the dependent variable that can be explained through the dependent variable where this ratio is (45.5%), this ratio shows extent of the independent variable in predicting the dependent variable.

According to this result, the null hypothesis of the study is rejected and the alternative hypothesis is accepted, i.e. there is an effect for transparency of e-government on the staff performance.

12.2.4 4<sup>th</sup>null sub-hypothesis: there is no statistically significant effect at significance level (0.05) for perceptions of respondents about the service quality on staff performance in the Greater Amman Municipality.

To verify this hypothesis, regression analysis is used, where the following table shows results of this analysis:

Table (10) results of linear regression analysis for effect transparency of e-government on the staff performance

Independent variable	r	$\mathbb{R}^2$	F	Sig f	β0	В	Т	Sig t
Service quality	0.700	0.490	233.17	0.000*	1.176	0.662	15.27	0.000*

(\*) indicates to existence of a statistically significant relation

The results show that there is a significant effect for service quality of e-government on the staff performance. The relation value between the two variables is (0,700) where this value is statistically significant since the value of calculated (f) (233.17) is statistically significant at significance level (0,000) which is less than (0, 05), this result indicates the importance and effect of service quality of e-government on the staff performance.



The results show values of coefficient (B) and effect of HR efficiency of application of e-government on the staff performance in the regression model where value of this effect is (0,662).

Value of (t) shows the linear importance of the coefficient (B), where value of significance level (0,000) is less than (0, 05), where the value of coefficient reached is considered significant.

Values of (R2) show ratio of difference of the dependent variable that can be explained through the dependent variable where this ratio is (49.0%), this ratio shows extent of the independent variable in predicting the dependent variable.

According to this result, the null hypothesis of the study is rejected and the alternative hypothesis is accepted, i.e. there is an effect for transparency of e-government on the staff performance.

### 13. Conclusions

Based on the results reached after conducting the statistical analysis on answers of respondents, a number of conclusions are reached:

What is the level of application of e-government in the Greater Amman Municipality?

The results of perceptions of respondents show that application of e-government is medium (3.43), and the (cost reduction) ranks first (3.64); where this is attributed to savings resulting from application of e-government in terms of consumption of paper, reduction of workers on the copying line, reduction of traditional transactions, integration with other organizations via networks, and saving of time. The variable of transparency ranks last (3.24), this is because of the matters of confidentiality and non-disclosure. In fact, this is found in a lot of traditional departments which consider that confidentiality leads to positive results.

As for the question related to level of staff performance due to application of e-government,

It is medium at (3.47) which indicates to and advanced level due to the accuracy, quickness and quality provided by application of e-government which led to getting rid of routine and increasing staff efficiency. The staff compliance ranks first at (3.54). This is because of the adopted instructions that require compliance of employees and observance of instructions and legislation established at the governmental department, in addition to compliance with the working hours which are subject to internal control. The job loyalty ranks last at (2.42) due to the continuous need of employees to moral and financial incentives which increases the morale of these employees. Also, the employees need to know that they are important despite what the technology provides like the modern tools, since the human resources are the most expressive property of any organization.

The results show that there is a statistically significant effect for application of e-government on the staff performance, where (r) ratio is (0.784), and this is a statistically significant value where it explains the strong relationship between application of the e-government and the staff performance. This leads to rejecting the null hypothesis and accepting the alternative hypothesis (there is a spastically significant effect for application of e-government on preference of employees in the Greater Amman Municipality). This indicates that the e-government has made a paradigm shift, reform process and restructuring, and it was not just computers and electronic processes.

Value of  $R^2$  (55.9%) explains the difference level in the performance which is explained by the difference level in application of the e-government. Thus, it could be said that there is a statistically significant effect for application of e-government on staff performance in the



Greater Amman Municipality.

The study shows importance of the e-governments for citizens where service is provided at all times. It shows that application of e-government has changed the stereotypes image of the governmental business, and that this application has emerged a new era characterized by accuracy, quality and quickness.

### 14. Recommendations

It is necessary to continuously promote the infrastructure to keep pace with all new developments on application of e-government to maintain the performance level.

It is necessary to adopt incentives to strengthen loyalty of employees to the Greater Amman Municipality.

It is necessary to increase control over accuracy of application of the movement business to improve performance.

It is necessary to educate citizens and increase their curiosity in knowing more about the e-government which requires more transparency that promotes trust with citizens.

It is necessary to hold workshops for employees to identify e-government, especially the new employees.

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