

E-management in Algerian service institutions: difficulties and challenges

- Case study Algeria Telecom Company, Biskra branch

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Abstract ;

This This study aimed to shed light on e-government in Algerian service institutions through a field study conducted at the Algerian Telecommunications Corporation branch in Biskra, and to identify the most important requirements for implementing an e-government project in the institution. The questionnaire was used as a data collection tool distributed to a sample of (50) employees. To achieve the objectives of the study, a descriptive and analytical approach was adopted. The results of the study showed that the institution has the organizational, technical, financial, and security requirements necessary to implement e-government, but lacks the human requirements. It was found that there is a statistically significant relationship between each of the requirements (technical, financial, human, and security) for the implementation of e-government in the institution, while it was found that there is no relationship between the organizational requirements and the possibility of implementing e-government in the institution.

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1. Introduction

Recent years have witnessed tremendous progress in information and communication technology, and have resulted in the emergence of many modern technological means such as the Internet, which has turned the world into a small village, through the transfer of information to all parts of the world, which has made this era known as the age of information and knowledge explosion, which has made change inevitable, as it has forced institutions to keep pace with all rapid technological changes, and one of the most prominent aspects of change that institutions have known is the shift from traditional management to electronic management that depends on the widespread use of information and communication technology. It plays a significant and positive role in increasing productivity, facilitating work procedures, increasing the effectiveness of decision-making, and providing high-quality services that meet customer expectations and requirements.

E-governance is a topic that has been and continues to be hotly debated in all countries suffering from administrative corruption and weak performance levels within their institutions. The importance of this topic has increased more than ever before, as the implementation of e-governance has had numerous impacts on traditional administration in its form and functions, particularly with regard to service institutions, which have transitioned from the traditional, direct form to the electronic service model, providing access to services at any time and from any place. This is achieved by providing the requirements that contribute to the implementation of e-governance, represented by: organizational, technical, financial, human resources, and security requirements.

Service establishments are among the establishments that have become obligated to use electronic management, as the nature of the services they provide, which differ from the commodity - being intangible, inseparable from the one who provides them, and not storable... - requires the establishment to take into consideration the quality of the service as a main focus that must be continued and regularly provided. This requires a continuous need for accurate information, continuous monitoring of its environment, and knowledge of the aspirations and desires of its customers. This can only be achieved by relying on the electronic management model, which simplifies procedures, reduces costs, accelerates achievement and accuracy, and brings customers closer and understands their requirements, making its services of comprehensive quality.

Because Algeria, like other underdeveloped countries, suffers from several problems in its service institutions, which have directly and indirectly affected the performance and quality of its services, which has increased customer dissatisfaction and negatively impacted its national economy. Therefore, and based on this, all these problems and obstacles can be overcome by the actual implementation of the e-management model in Algerian service institutions, by providing all organizational, human, technical and financial requirements. They must also transform the traditional functions of the institution (planning, organization, leadership, control) into electronic functions (electronic planning, electronic organization, electronic leadership, electronic control).

As Algeria's telecommunications sector has witnessed rapid growth in recent years, and with the entry of new operators after it had been a monopoly, Algeria Telecom is now obliged to

confront the fierce competition, particularly in the context of mobile phone and internet services, by providing high-quality services to meet the expectations of its customers. This can only be achieved through the implementation of e-government.

Therefore, through this study, we will attempt to answer the following question: How do the available requirements contribute to the embodiment of electronic management in Algerian service institutions?

In our quest to answer the question posed, we can proceed from the following main hypothesis: There is a relationship between the requirements available for implementing e-management in a service organization and the solution to the study. The main hypothesis can be verified through the following sub-hypotheses:

The first hypothesis: There is a relationship between the regulatory requirements for implementing e-management in the service institution under study;

The second hypothesis: There is a relationship between the technical requirements for implementing e-management in the service institution under study;

The third hypothesis: There is a relationship between the financial requirements for implementing e-management in the service institution under study;

The fourth hypothesis: There is a relationship between the human requirements for implementing electronic management in the service institution under study;

The fifth hypothesis: There is a relationship between the security requirements for implementing electronic management in the service institution under study;

Accordingly, through this study, we attempted to define a general framework for e-government to understand and identify the challenges it faces, the value and importance of the requirements available for its implementation, and whether Algerian service institutions, especially the institution under study, have succeeded in this. We seek to answer these questions through the following axes:

- The conceptual framework of the study variables (e-management, service institutions);
- The relationship between e-administration and service institutions;
- The reality of e-management in Algerian service institutions - a case study-;
- Discussion of the results of the study obtained;

Study objectives: This study aims to achieve a number of objectives, including the following:

- Defining e-management and identifying the most influential requirements for its successful implementation in service institutions.
- Identify the nature, strength and direction of the relationship between e-management and service institutions.
- Highlighting the reality of e-management in service institutions.

2. The conceptual framework of the study variables

2.1 Electronic administration

The extensive use of information and communication technology has led to the emergence of a modern administrative concept, namely e-management. It's considered a modern topic on the regional and international scene, and has attracted the attention of many researchers and specialists. It's based on a new and advanced concept that goes beyond the modern concept of

"call, but don't call," taking it a step further, becoming "get online, but don't get in the way." (Bakir, 2006)

Najm Abboud Najm defined it as "the administrative process based on the unique capabilities of the Internet and business networks in planning, directing, and controlling the essential resources and capabilities of the organization and others without limits, in order to achieve the organization's goals." (Najm, 2004, p. 127)

Saad Ghaleb Yassin also points out that it is "the function of completing work using electronic systems and means." (Yassin, 2005, p. 22), through Converting traditional administrative services and long and complex paper-based procedures into electronic operations that are executed with high speed and extreme accuracy (Al-Hassan, 2009, p. 05).

Alaa Abdul Rahman Al Salmi sees it as "the automation of all administrative tasks and activities, based on the necessary information, to achieve the new administration's goals of reducing paper use, simplifying procedures, eliminating red tape, and quickly and accurately completing tasks and transactions, so that each department is ready to be linked to the e-government system later." (Al-Salami, 2003, p. 13)

E-government is the transition from traditional manual transactions and service delivery to electronic forms, ensuring optimal use of time, money, and effort. In other words, it involves completing administrative transactions and providing public services via the internet or intranet, without requiring customers to physically visit departments to complete their transactions, which entails a waste of time, effort, and energy. (Bakir, 2006)

Thus, e-administration has helped societies improve their conditions for the better. It represents another aspect of modern administration due to its role in good performance, speedy completion of tasks, and the elimination of administrative corruption and bureaucracy, etc. Based on this, we can present the characteristics of e-administration in the following points: (Al-Hasanat, p. 28)

- **Paperless management:** Everything is becoming electronic: electronic archives, email, automated tracking application systems...;

- **Management without a place:** It mainly depends on mobile phones and other electronic devices;

- **Timeless management:** Continue 24 hours a day, the idea of night and day, summer and winter no longer has a place;

- **Management without rigid organizations:** Peter Drucker spoke about smart organizations that rely on knowledge work, as the North is moving towards knowledge industries and throwing the non-knowledge industry to the South.

Thus, e-management is a new type of management that has greatly impacted institutions and their field of work. These impacts were not only on the technological level, but also on the administrative level, through the development of traditional concepts (planning, organization, leadership, control) to become electronic as follows:

- **Electronic planning:** It is a dynamic process towards broad, flexible, immediate and short-term goals, and is subject to continuous renewal and development, unlike traditional planning, which sets goals for implementation in the coming year. Changing goals usually negatively affects the efficiency of planning. The constant flow of digital information adds continuity to everything in the organization, including planning, which has transformed it from intermittent time planning

(preparing quarterly reports) to continuous planning. All employees work on the front line and contribute to electronic planning in every location and at all times. (Mohammed, 2009, p. 54)

- **Electronic organization:** In light of the electronic transformation, the components of the organization have emerged in a new organizational structure based on some fixed and large units, and from the vertical organization from top to bottom to another form known as the matrix organization, which is based mainly on small units and institutions without an organizational structure. Thus, the administrative division has become based on teams, instead of the administrative division on the basis of units and departments, and the transition from the chain of linear administrative orders to independent units and advisory authority, and from the administrative organization that highlights the role of the direct manager to the organization of multiple direct managers, and from detailed regulations to self-managed teams, and from the centralization of authority to multiple centers of authority (Ashour, 2010, p. 30) Thus, the electronic organization works on a flexible organization that allows communication and cooperation between different individuals, broad networking among all employees via the internal network, the use of highly specialized and skilled workers, and transforming customers into active participants in product design, feature selection, and combinations. (Abdel Nasser, Qurayshi, 2011, p. 94)
- ✓ **Electronic leadership:** The change in the e-business environment and the shift in management concepts have led to a qualitative shift, one of the results of which has been the transition to an e-leadership model, which is divided into the following three types: (Ashour, 2010, p. 31)
- ✓ **Practical technical leadership:** Its activities are based on the use of Internet technology, and are characterized by increased availability, quality, and speed of information, in addition to being characterized by leadership in the sense of time and speed of movement.
- ✓ **Soft human leadership:** It is distinguished by the presence of a leader who is distinguished by his professionalism, knowledge, and good dealings with customers, through quick response to their demands, managing competition, access to the market, and focusing on innovation for customers;
- ✓ **Self-driving:** Characterized by the ability to motivate one self, focus on completing tasks, and the desire to take initiative, in addition to high skill and flexibility in adapting to developments in the changing environment.
- **Electronic censorship:** and It is more capable of knowing the implementation-related variables as they occur and in real time. The information recorded immediately after implementation is available to the manager at the same time, which enables him to know the changes before or during implementation. (Najm, 2009, p343) Thus, electronic monitoring allows for real-time monitoring through the internal network, which allows for reducing the time gap between the process of discovering a deviation or error and the process of correcting it. It is also a continuous, renewable process, through the flow of information and networking between managers, workers, suppliers, and consumers. Everyone works at the same time, which leads to increased electronic trust and electronic loyalty among all actors, which has made electronic monitoring closer to trust-based monitoring.. (Ashour, 2010, p. 31)

2.2 Service institutions

In order to accurately define service institutions, we must define the institution in general and the service as the foundation of service institutions. According to Ahmed Shaker, institutions can be defined as "an economic unit comprising a number of individuals and utilizing various elements of production to transform them into outputs through activities and events, with the goal of satisfying needs and desires." (Al-Askari, 2000, p. 15)

A service is defined as "an activity or benefit provided by one party to another, which is essentially intangible and does not entail any ownership. Providing a service may or may not be linked to a physical product." (Kotler, 2006, p. 462), as he knew it Stanton defines it as "intangible activities that provide a benefit to the customer, and are not necessarily related to the sale of other goods or services, i.e., the production or provision of a particular service does not require the use of a physical good." (Al-Amlaq, Al-Taie, 2007, pp. 35-36) Therefore, both Kotler and Armstrong believe that services cannot be seen, tasted, heard, or felt before they are purchased (used), and they cannot be separated from their providers, and both the service provider and the customer influence the outcome of the service. (Al-Shammari, 2010, p. 4)

Therefore, service organizations are "a system consisting of a group of people and means that are organized and interact with each other to produce non-material value to satisfy the needs and desires of the customer." (Boujnana, 2010, p. 3) It also refers to any institution whose primary purpose is to provide a service to the customer. Examples of service-providing institutions include hotels, restaurants, hospitals, financial and educational institutions, and various other service institutions. (BinAishawi, 2006, p. 08) The nature of a service differs from the nature of a commodity, and therefore a service organization differs from organizations that produce commodities. This has made the service organization distinguished by a set of characteristics, the most important of which are: (Boujnana, 2010, pp. 5-6)

- These institutions have a service culture based on a comprehensive approach to all functional activities.
- Service quality is considered a main focus that must be provided consistently and regularly at the same level.
- It is based on the principle that the customer is the main axis of its movement and continuity.
- Its constant need for accurate information and close monitoring of its environment so that it can plan its marketing activities.
- The intangible nature of its products and the nature of the business it does are more persuasive than others.
- Its products are characterized by being produced, presented and utilized simultaneously and sequentially.
- It is based on transforming a variety of tangible and intangible inputs into intangible outputs, but they are tangible in the form of experiences or experiments that the institution's clients go through. For example, the education service requires the presence of educational buildings, books and pens, but they are not tangible in themselves because they are higher mental knowledge and learning experiences whose dimensions cannot be determined materially.
- Its customers obtain the services they require at its production sites, and sometimes participate directly in its production.

- Customers cannot own, store and consume the services they receive in the economic sense, as they are variable and varied according to what each customer demands.

3. The relationship between e-administration and service institutions

The success of an e-government project hinges on the need to provide a set of necessary requirements, including human, financial, organizational, technical, and security requirements, which must be provided to prepare this massive project. This is something our Algerian institutions mostly possess, because as rapidly as they develop, they are also characterized by their ease of understanding. Furthermore, this technology is a digital chain, the components of which are closely linked.

Therefore, this project requires significant efforts in terms of providing the necessary basic requirements for it. Therefore, the transition from traditional management to electronic management in the Algerian service institution is primarily a matter of providing a set of necessary requirements for this.

3.1 Regulatory requirements: In order for a service organization to achieve its desired goals, e-management requires good management that supports and encourages development and change, and embraces all new administrative methods. It also requires the presence of e-management leaders who deal efficiently and effectively with information and communications technology, and who are capable of innovation, re-engineering organizational culture, and creating knowledge. This is because digital management requires a clear development of the traditional components of a service organization's culture, moving beyond hierarchical relationships and communications to networked ones, from verticality to horizontality, and from specialization to administrative empowerment.

E-administration also requires the need to work on raising awareness among individuals of the feasibility and importance of implementing e-administration work and transactions. (Al-Hasanat, p. 56) The application of e-management in service institutions requires providing the necessary organizational requirements for use in: determining the degree of contribution of each process or function to achieving the desired goals, absorbing unnecessary processes with the aim of simplifying the system and making it compatible with the requirements of the transition to e-management, adding the necessary processes to support the process of transitioning to e-business, providing a sufficient degree of flexibility for the system and determining the extent of its ability to achieve the desired goals. (El-Sayrafi, 2006, p. 200).

3.2 Technical requirements: E-governance requires the provision of an appropriate infrastructure for its success in the organization. It is important to note in this regard the necessity of e-governance being linked to all types of digital technology, including media, networks, tools, and techniques. Digital technology is developing at a rapid pace, and its types are diversified, which creates permanent and open options for management to link some business activities with mobile phone services and the Internet and its technologies, such as messaging services, Internet Protocol and other information media, and the use of information technology tools and systems. These networks are considered an important and essential element and a reason for implementing e-governance. (Yassin, 2005, p. 235)

The application of e-management in service institutions requires the provision of the necessary technical requirements, which are: (binSaleh, 2008, pp. 28-35)

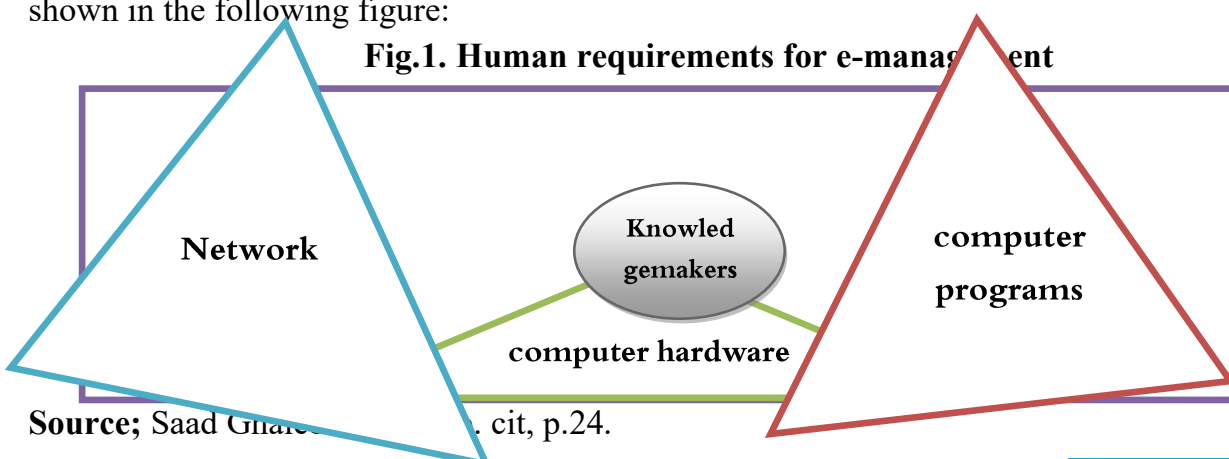
- **Communication networks:** Any connection of a group of computers together directly, via telephone lines, or via satellites, for the purpose of obtaining and exchanging information between these computers;
- **Computer:** It is a high-speed, high-precision electronic machine that can accept, store and process data to reach the desired results.
- **Computer programs:** It is a group of programs used to take advantage of its various capabilities and is called software and is divided into operating software, translation software, application software and educational software.

3.3 Financial requirements: E-government is a huge project that requires huge amounts of money to ensure its continuity, success, and achievement of the desired goals of the service organization, such as improving the level of infrastructure, providing the necessary devices, tools, and electronic programs, updating them from time to time, and continuously training human elements. Therefore, sufficient funding must be provided for this project, which differs in type and size from the financial requirements necessary to implement traditional management systems and methods. Therefore, decision-makers must implement rational financial planning and allocate sufficient allocations for e-government applications. (Al-Hasanat, p. 59)

The application of e-management in service institutions requires the provision of the necessary financial requirements, which include providing the infrastructure in terms of purchasing devices, establishing websites, connecting networks, designing and developing the electronic programs necessary for e-management applications, employing qualified trainers to train human resources, maintaining electronic devices and programs, and updating devices and software. (Al-Hasanat, p. 60).

3.4 Human requirements: One of the most important components of e-administration is the human element, in addition to the technical requirements and tools for its ability to operate e-administration tools, understand its system, work to contain information in digital form, and ease of moving it, reformulating it, and using it electronically from one place to another. (Jamal, p. 36) They represent Experts, specialists, and knowledge workers represent the human and functional structure of the e-management system. They are its most important component and represent the digital leaders, managers, and analysts of knowledge resources and the intellectual capital of the organization. (binSaleh, 2008, p. 35)

Saad Ghaleb Yassin believes that e-administration is the product of a fertile blend of three requirements: computer hardware, software, and, and communication networks, and at the heart of these components are knowledge makers of experts and specialists (Yassin, 2005, p. 24), as shown in the following figure:



3.5 Security requirements: Information security is one of the most important dilemmas of electronic work, meaning that the information and documents that are stored and processed and transferred electronically to implement work requirements must be kept secure, as electronic security and electronic confidentiality must be available at a high level to protect national and personal information, and to protect the electronic archive of the service institution from any tampering, so that the application of electronic management in service institutions requires providing the necessary security requirements to protect the security of information systems, which are represented in (Abdel Nasser, Qurayshi, 2011, pp. 91-92):

Establish security policies for information technology, including Internet services. Adopt a national information security strategy that ensures cooperation between public and private sector agencies. Establish laws and regulations that limit cyber theft and information privacy violations in e-government. Senior management in the service organization must support the security of its information systems and assign this responsibility to specific individuals. Determine the necessary protection for operating systems and various applications. Determine monitoring and inspection mechanisms for information systems and computer networks. Maintain secure backup copies of information systems. Encrypt information that is saved, stored, and transmitted on various media.

4. The reality of e-management in the Algerian Telecommunications Corporation, Biskra branch.

After identifying in the previous sections the theoretical framework of the most important theoretical concepts and dimensions related to the study variables as well as the nature of the relationship that links them, this section comes in order to achieve the objectives of the study, which is to know whether the available requirements are related to the possibility of applying electronic management in Algerian service institutions or not? This study was conducted on one of the national service institutions, which is the Algerian Telecom Company - Biskra branch -. This choice was not automatic, but rather due to the important position that the institution occupies in the national market in the field of its activity and the quality of its services. It is one of the institutions required to constantly innovate its used technologies, to ensure the smooth running of its services.

4.1 Study community and sample: The study community includes all workers of the Algerian Telecommunications Corporation - Biskra branch - whose number is (379) workers, and a random sample of 50 workers was selected.

4.2 Data collection tool: This study relied on the questionnaire as a tool for collecting data, and it was distributed to a sample of (50) Factors, and it was possible to retrieve (30) questionnaires with complete data, i.e. 60% of the total volume of distributed questionnaires. A three-dimensional Likert scale was adopted to measure its degree.

4.3 Statistical analysis: The statistical program was relied upon. ^{9(*)}SPSS.V1 was used to convert data into numbers. The questionnaire included a set of variables: organizational requirements (4 statements), technical requirements (5 statements), financial requirements (4 statements), human requirements (6 statements), security requirements (4 statements), and the possibility of implementing electronic management (7 statements). The methods used include:

Cronbach's Alpha test, arithmetic mean, standard deviation, and Spearman's correlation coefficient.(Spearman Correlation.

4.4 - Consistency and validity transactions: This is to ensure their accuracy and reliability, as shown in the following table:

Table 1. Stability and reliability transactions

Questionnaire axes	Number phrases	of stability coefficient	reliability coefficient
Regulatory requirements	04	0.79	0.88
Technical requirements	05	0.63	0.79
Financial requirements	04	0.73	0.85
Human requirements	06	0.61	0.78
Security requirements	04	0.69	0.83
The possibility of implementing electronic management	07	0.74	0.86
Total	30	0.89	0.94

Source: Prepared by the researchers based on the program outputs SPSS.

The previous table shows that the reliability and validity coefficient of the measurement tool (questionnaire) was high, as it achieved a reliability coefficient of 0.89, and the reliability coefficient was 0.94, as the Cronbach's alpha value for all variables was above the required value of 0.6. Therefore, these results indicate that the measurement tool is characterized by stability and reliability, and is valid for analyzing the results.

4.5- Analyzing the trends of the study sample's opinions on e-management variables.

- Regulatory requirements: Table No. (shows 02) The arithmetic mean, standard deviation, and direction of the answer regarding the regulatory requirements variable.

Table 2. Arithmetic mean and standard deviation of the statements after regulatory requirements

Phrases	arithmetic mean	standard deviation	Trend	Arrangement
The Foundation works to encourage you to use modern technologies.	2.60	0.62	Agree	1
There is sufficient awareness of the importance of applying and using e-management.	2.47	0.73	Agree	2
The management is keen to ensure that business is conducted electronically.	2.37	0.66	Agree	3
There is a department or section in the organization that specializes in computers and information technology.	2.17	0.64	Neutral	4
Regulatory requirements	2.40	0.46		Agree

Source: Prepared by the researchers based on the program outputs SPSS.

Through table No. (02) It became clear to us that the variable of regulatory requirements achieved an arithmetic mean of 2.40 and a standard deviation of 0.46. The arithmetic mean of this

paragraph exceeded the neutrality level, meaning that the direction of the answer to all the statements of this variable is “agree”. Therefore, the institution under study has the regulatory requirements necessary to implement electronic management, as the results proved that the institution is keen to motivate individuals to use modern technologies, which supports the implementation of electronic management. This statement ranked first in terms of importance, followed in second place by the presence of sufficient awareness of the importance of implementing and using electronic management, in addition to the institution’s keenness to ensure the conduct of business electronically, as this statement ranked third. However, despite the availability of these requirements, the institution does not have a department or section dedicated to computers and information technology. This statement obtained an arithmetic mean of (2.17) and a standard deviation of (0.64). The direction of the answer to this statement was “neutral”.

-Technical requirements: Table No. (shows 03) The arithmetic mean, standard deviation, and direction of the answer regarding the technical requirements variable.

Table 3. Arithmetic mean and standard deviation of the following statements: Technical requirements

Phrases	arithmetic mean	standard deviation	Trend	Arrangement
The institution has a network that connects all its offices.	2.50	0.63	Agree	1
Corporate email is used for business.	2.47	0.81	Agree	2
There is a connection between the organization's network and the Internet.	2.43	0.77	Agree	3
Your organization has the necessary number of computers.	2.20	0.88	Neutral	4
Your organization has the latest advanced electronic devices and software.	2.17	0.79	Neutral	5
Technical requirements	2.35	0.48	Agree	

Source: Prepared by the researchers based on the program outputs SPSS.

From the previous table, we find that the arithmetic mean of the technical requirements variable is: 2.35, and a standard deviation of 0.46. The answer direction regarding the statements measuring this variable is “agree,” which indicates that the institution has sufficient technical requirements to implement e-management. The answers showed that the institution has a network that connects all its offices, where this statement ranked first in terms of importance. It also has its own email that it uses for work and facilitating its transactions, and this statement ranked second. There is also a connection between the institution’s network and the Internet, where this statement ranked third. However, there is a deficiency in the institution’s technical requirements, as the results also showed that the institution does not have the latest advanced electronic devices and programs, nor does it have the necessary amount of computers, where the arithmetic mean for this statement was 2.20 and a standard deviation of 0.88, and the answer direction was towards “neutral,” where this statement also achieved an arithmetic mean of 2.17 and a standard deviation of 0.79, and the answer direction was towards “neutral.”

Financial requirements: Table No. (shows04) The arithmetic mean, standard deviation, and direction of the answer regarding the financial requirements variable.

Table 4. Arithmetic mean and standard deviation of the following statements: Financial requirements

Phrases	arithmetic mean	standard deviation	Trend	Arrangement
Financial support is available for the maintenance of electronic hardware and software.	2.50	0.68	Agree	1
Financial support is available to purchase electronic technologies.	2.43	0.62	Agree	2
Financial support is available to develop the software used in the work.	2.30	0.83	Neutral	3
Adequate financial support is available to hire qualified trainers to train employees on e-work.	2.13	0.81	Neutral	4
Financial requirements	2.34	0.48		Agree

Source: Prepared by the researchers based on the program outputs SPSS.

Through table No. (04) We note that the financial requirements variable achieved an arithmetic mean of 2.43 and a standard deviation of 0.48, and the response trend was towards “agree”, which indicates that the institution has sufficient financial requirements to implement e-management, as the institution has the necessary financial support to maintain electronic devices and programs and to purchase electronic technologies, as this statement achieved the first rank in terms of importance, in addition to the availability of the necessary financial support to purchase electronic technologies, and this statement was ranked second. However, despite the availability of these two requirements, there is a deficiency on the part of the institution with regard to developing the electronic programs used in the work, as this statement achieved an arithmetic mean of 2.30 and a standard deviation of 0.83, and the response trend was towards “neutral”. In addition, the institution does not have sufficient financial support necessary to hire qualified trainers to train employees on electronic work, as this statement achieved an arithmetic mean of 2.13 and a standard deviation of 0.81, and the response trends were towards “neutral”, which constitutes an obstacle to improving the opportunities for implementing e-management.

- **Human requirements:** Table No. (shows05) Arithmetic mean, standard deviation and direction of answer regarding the human requirements variable.

Table 5. Arithmetic mean and standard deviation of the following statements: Human requirement

Phrases	arithmetic mean	standard deviation	Trend	Arrangement
You have good computer skills.	2.37	0.80	Agree	1
The administration is keen to keep pace with technical developments in the field of computers.	2.33	0.71	Agree	2
You will be trained to use modern electronic technologies in your field of work.	2.30	0.75	Neutral	3
The institution has IT specialists.	2.30	0.79	Neutral	4
The organization has programmers who design and develop electronic programs for administrative work.	2.27	0.78	Neutral	5
The managers in the organization are quick to move, respond, and take initiative in carrying out their administrative tasks and duties.	2.10	0.84	Neutral	6
Human requirements	2.27	0.37		Neutral

Source: Prepared by the researchers based on the program outputs SPSS.

It is clear from the previous table that the arithmetic mean of human requirements has been achieved 2.27, and a standard deviation of 0.37. The respondents' responses tended towards "neutral," which indicates that the organization does not have the necessary human resources to implement e-management. The results showed that employees do not receive adequate training to use modern electronic technologies in their field of work. The organization also lacks IT specialists. There are also no programmers in the organization who design and develop electronic programs for administrative work. In addition, managers do not possess the agility, responsiveness, and initiative to carry out their administrative tasks and duties. There is also a lack of keeping up with technical developments in the field of computers to keep abreast of all that is new, which hinders the implementation of e-management. Despite the lack of human resources necessary to implement e-management, individuals have the ability to deal with computers well. This statement achieved the largest arithmetic mean of 2.37 and a standard deviation of 0.86, and the response trend was towards "agree."

- **Security requirements:** Table No. (shows06) The arithmetic mean, standard deviation, and direction of the answer regarding the security requirements variable.

Table 6. Arithmetic mean and standard deviation of the security requirements statements

Phrases	arithmetic mean	standard deviation	Trend	Arrangement
The use of electronic administration contributes to the protection and confidentiality of information.	2.53	0.73	Agree	1
The use of e-administration increases confidence in administrative transactions.	2.47	0.68	Agree	2
The institution has a system for information protection and security.	2.23	0.77	Neutral	3
The institution has a mechanism for recovering data in the event of damage or computer failure.	2.20	0.71	Neutral	4
Security requirements	2.35	0.44		Agree

Source: Prepared by the researchers based on the program outputs SPSS.

From the previous table, we note that the security requirements variable has achieved its arithmetic mean 2.35, and a standard deviation of 0.44, meaning that the arithmetic mean exceeded the neutrality level, and the individuals' attitudes were towards "agree", and therefore the institution has the necessary security requirements to implement electronic management, as the results showed us that individuals in the institution have full confidence that the use of electronic management leads to the protection and confidentiality of information, as this statement was ranked first in terms of importance, and also contributes to increasing confidence in administrative transactions, and this statement was ranked second. Despite this, there is no system for protecting and securing information in the institution, as this statement achieved an arithmetic mean of 2.23 and a standard deviation of 0.77, and the answer trend was towards "neutral". Also, the institution does not have a mechanism for recovering data in the event of damage or computer malfunction. This statement achieved an arithmetic mean of 2.20 and a standard deviation of 0.71, and the answer trend was towards "neutral".

- **E-management requirements:** Table No. (shows07) The arithmetic mean, standard deviation, and direction of the answer regarding all variables of e-management requirements together.

Table 7. The overall level of e-management requirements in the institution under study.

Requirements Management Electronic	arithmetic mean	standard deviation	Trend	Arrangement
Regulatory requirements	2.40	0.46	Agree	1
Technical requirements	2.35	0.46	Agree	3
Financial requirements	2.34	0.48	Agree	4
Human requirements	2.27	0.37	Neutral	5
Security requirements	2.35	0.44	Agree	2
Level kidney For requirements Management Electronic	2.34	0.33		Agree

Source: Prepared by the researchers based on the program outputs SPSS.

So, by analyzing the previous requirements and through the results of Table No (7) We conclude that although the institution under study does not have sufficient human resources, it has the necessary requirements to implement e-management. The overall arithmetic mean for the study variables was 2.34, which exceeded the neutrality level, as all responses to all statements were in the "agree" direction. The overall standard deviation was 0.33, indicating the homogeneity and consistency of the sample members' responses.

The results of the previous table also enable us to arrange the dimensions of e-management requirements in descending order, from the greatest contribution to the application of e-management in the institution under study to the least, as follows:

Regulatory requirements: It came in first place as the dimension that contributed most to the application of electronic management within the institution, with an arithmetic average of (2.40), which reflects a good interest in the organizational aspect of the institution under study.

Security requirements: It came in second place as the most important dimension contributing to the application of electronic management within the institution, with an arithmetic average of (2.35), which reflects a good interest in the security aspect in the institution under study.

Technical requirements: It came in third place as the most important dimension contributing to the application of electronic management within the institution, with an arithmetic average of (2.35), which reflects a good interest in the technical aspect of the institution under study.

Financial requirements: It came in fourth place as the most important dimension contributing to the application of electronic management within the institution, with an arithmetic average of (2.34), which reflects a good interest in the financial aspect of the institution under study.

Human requirements: It came in fifth and last place as the least contributing dimension to the application of electronic management within the institution, with an arithmetic mean of (2.27), which reflects a lack of interest in the human aspect of the institution under study.

4.6- Testing the study hypotheses: In order to test the study hypotheses, we calculated Spearman's correlation coefficient to determine the correlation between the requirements available in the service institution and the possibility of applying electronic management, as shown in Table No. (08).

Table 8. The correlation coefficient between the requirements available in the service institution and the possibility of implementing electronic management.

requirements Management Electronic	Spearman's correlation coefficient	Probability value (Sig)
Regulatory requirements	0.259	0.083
Technical requirements	0.537	0.001(*)
Financial requirements	0.376	0.020(*)
Human requirements	0.432	0.009(*)
Security requirements	0.309	0.049(*)
Requirements Available	0.496	0.003(*)

(*)The correlation is statistically significant at the significance level (0.05).

Source: Prepared by the researchers based on the program outputs SPSS.

- The first hypothesis: There is a statistically significant relationship between regulatory requirements and the possibility of implementing e-management in the service institution under study.

Through table No. (08) It is clear that the correlation coefficient between the availability of regulatory requirements and the possibility of applying electronic management in the institution under study is equal to 0.259, and that the probability value equal 0.083 It is greater than the significance level (0.05) This indicates the rejection of the hypothesis that states that there is a statistically significant relationship between the availability of regulatory requirements and the possibility of implementing electronic management in the organization Service.

- The second hypothesis: There is a statistically significant relationship between technical requirements and the possibility of implementing e-management in the service institution under study.

Through table No. (08) It is clear that the correlation coefficient between the availability of technical requirements and the possibility of applying electronic management in the institution is equal to 0.537, and the probability value is equal 0.001 It is less than the significance level (0.05) This indicates the acceptance of the hypothesis that states that there is a statistically significant relationship between the availability of technical requirements and the possibility of implementing electronic management in the institution Service.

- The third hypothesis: There is a statistically significant relationship between financial requirements and the possibility of implementing e-management in the service institution under study.

Through table No. (08) It is clear that the correlation coefficient between the availability of financial requirements and the possibility of applying electronic management in the institution is equal to 0.376, and the probability value is equal 0.020 It is less than the significance level (0.05) This indicates the acceptance of the hypothesis that states that there is a statistically significant relationship between the availability of financial requirements and the possibility of implementing electronic management in the service institution.

- The fourth hypothesis: There is a statistically significant relationship between human requirements and the possibility of applying electronic management in the service organization. Study location.

Through table No. (08) It is clear that the correlation coefficient between the availability of human requirements and the possibility of applying electronic management in the institution is equal to 0.432, and the probability value is equal to 0.009. It is less than the significance level (0.05). This indicates the acceptance of the hypothesis that there is a statistically significant relationship between the availability of human requirements and the possibility of implementing electronic management in the service organization.

- The fifth hypothesis: There is a statistically significant relationship between security requirements and the possibility of implementing electronic management in the service institution under study.

Through table No. (08) It is clear that the correlation coefficient between the availability of security requirements and the possibility of applying electronic management in the institution is equal to 0.309, and the probability value is equal to 0.049. It is less than the significance level (0.05). This indicates the acceptance of the hypothesis that there is a statistically significant relationship between the availability of security requirements and the possibility of implementing electronic management in the service organization.

- Main hypothesis: There is a statistically significant relationship between the requirements available in the service institution and the possibility of applying electronic management in the service institution under study.

Through table No. (08) It is clear that the correlation coefficient in general between the available requirements and the possibility of applying electronic management in the institution is equal to 0.496, and that the probability value is equal to 0.003. It is less than the significance level (0.05). This indicates the acceptance of the main hypothesis, which states that there is a statistically significant relationship between the available requirements and the possibility of implementing electronic management in the service organization.

5. Discussion of the study results

Based on the results of the statistical analysis and quantitative treatments that were reached through the case study and the questionnaire distributed to the study sample in the Algerian Telecommunications Corporation, several results were reached that are closely related to the subject of the study, where it was found that:

- There is no statistically significant relationship between regulatory requirements and the feasibility of implementing e-governance in the organization under study. Despite the organization's availability of the necessary regulatory requirements for implementing e-governance, the organization is committed to: motivating individuals to use modern technologies, which supports the implementation of e-governance; having sufficient awareness of the importance of implementing and using e-governance; and ensuring that business processes are conducted electronically.
- There is a statistically significant relationship between technical requirements and the feasibility of implementing e-governance in the organization under study. This is because the organization possesses the technical requirements sufficient to implement e-governance. This is evident in the organization's possession of: a network connecting all its offices; its own email address, which it

uses for work and to facilitate its transactions; and a connection between the organization's network and the internet.

- There is a statistically significant relationship between financial requirements and the feasibility of implementing e-management in the institution under study. This is due to the institution having sufficient financial requirements to implement e-management, as the institution has: the financial support necessary to maintain electronic hardware and software and to purchase electronic technologies, and the financial support necessary to purchase electronic technologies.
- There is a statistically significant relationship between human resource requirements and the feasibility of implementing e-management in the organization under study. This is despite the fact that it was found that the organization does not have the necessary human resources to implement e-management, due to the following reasons: Individuals working in the organization do not receive adequate training in the use of modern electronic technologies in their field of work; the organization lacks IT specialists; there are no programmers in the organization to design and develop electronic programs for administrative work; managers lack agility, responsiveness, and initiative in carrying out their administrative tasks and duties; and they do not keep up with technological developments in the field of computers to stay abreast of all the latest developments.
- There is a statistically significant relationship between security requirements and the feasibility of implementing e-governance in the organization under study. This confirms that the organization has the necessary security requirements to implement e-governance, as individuals within the organization have complete confidence that the use of e-governance leads to the protection and confidentiality of information and increases confidence in administrative transactions.
- Based on the previous results, it is possible to identify the requirements that lead to the actual embodiment and real success of the e-management project in Algerian service institutions. This is done by arranging the e-management requirements in the institution under study according to their contribution to the application of e-management from the highest contribution to the lowest, in ascending order according to their arithmetic average as follows: organizational requirements, security requirements, technical requirements, financial requirements, human requirements.

6. CONCLUSION

Implementing e-government requires the organization's management to provide a set of essential and necessary requirements that must be present together. These requirements include: organizational requirements, technical requirements, financial requirements, human requirements, and security requirements.

Through this, it can be concluded that the implementation of the e-government project is a successful one, enabling the organization to achieve its current and future goals, streamline work procedures, and conduct business efficiently and effectively. Through this study, we arrived at a set of conclusions and suggestions.

First: Results

- Theoretical results:

- Under e-management, traditional functions (planning, organization, leadership, control) have changed to become electronic functions (electronic planning, electronic organization, electronic leadership, electronic control);
- To implement e-government, the organizational, financial, human, technical and security requirements must be met.
- Implementing e-management in an organization makes businesses efficient and effective while increasing productivity.

- Applied results:

- In the institution under study, the organizational, technical, financial and security requirements necessary for implementing electronic management are available, but in contrast, the human requirements necessary for implementing electronic management are not available. However, despite this, there is agreement among the study's researchers that these requirements are related to the possibility of implementing electronic management.
- There is no statistically significant relationship between regulatory requirements and the possibility of implementing e-management in the institution under study.
- There is a statistically significant relationship between technical requirements and the possibility of implementing e-management in the institution under study.
- There is a statistically significant relationship between financial requirements and the possibility of implementing e-management in the institution under study.
- There is a statistically significant relationship between human requirements and the possibility of implementing e-management in the institution under study.
- There is a statistically significant relationship between security requirements and the possibility of implementing electronic management in the institution under study.

Second: Suggestions

Based on the results of this study, the following suggestions can be adopted:

- The necessity of preparing employees psychologically and morally to use e-management, by urging them that e-management is not an alternative to them, but rather a complement to them in completing their work efficiently and effectively;
- The need to have a department or division in the organization dedicated to information technology to explain how to accomplish tasks automatically;
- The organization must have IT specialists and programmers who design and develop electronic programs for administrative work, otherwise there will be no results or benefit from providing the other requirements;
- The need for senior management to support the implementation of e-management by explaining the advantages and benefits of its implementation and spreading the culture of e-work. Otherwise, it will be met with resistance and the project will fail.

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