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ARTICLE

The shift towards electronic management as a mechanism for reforming Algerian public organization- between importance and reality

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Abstract

The research topic aims to know the importance of activating the concept of electronic management and the shift from traditional work to electronic performance at the level of algerian public facilities, in order to establishing a modern administration based on investing in information and communication technology within administrative practices as a strategic administrative vision.in order to reformulate the system of administrative, organizational and service procedures, especially in the field of improving performance,in addition to, facilitating the provision of administrative services and removing all negative phenomena, which it has become known for with the optimal exploitation of available information sources by employing material, human and moral resources in a modern electronic framework, in line with the circumstances that the world is witnessing in all fields, especially after the emergence of the Covid-19 pandemic, which recognized the inevitability of reconsidering the methods of work and providing services .

Through our exploratory tour, it appeared that activating this modern concept within the frameworks of public organization is still far away despite the capabilities that have been harness it for that purpose.

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1- Introduction

The wave of change witnessed in organizational and administrative thought, resulting from the development of information and communication technology, has prompted many countries to shift toward the implementation of electronic administration, This shift aims to improve the performance of their institutions and ensure their survival and continued operation. This is particularly true given that institutions, regardless of their fields, are subsystems of larger systems: social, political, economic, technological, legal, cultural, and others, Algeria is part of this general system, seeking to adapt to the technological system in a desire to improve the performance of its institutions. This is particularly true given the realistic motivations for shifting toward electronic administration, dictated by its economic, political, social, and cultural context

From the above, our intervention aims to identify the importance of shifting toward electronic management as a mechanism for improving the performance of algerian public services.It is based on the importance of embodying

this modern administrative and managerial concept and the relationship between the reality of administration, its organizational culture, and the societal and individual cultures that contribute to its achievement. That is achieved by posing the following question: **What is the role of electronic management in reforming Algerian public services?** To answer the problem raised, we conducted a theoretical study, in which we used the descriptive approach, describing two phenomena: electronic administration and public services. We relied on desk survey research, which resulted in collecting information from reality through simple, ordinary observation, in addition to relying on references and research.

2-Motives for activating electronic management in algerian public utilities:

The Algerian state's endeavor to embody the concept of e- administration within the framework of public utilities stems from the conviction that activating this administrative model and shifting away from the traditional administrative model is dictated by a set of motives, including:

- Improving performance and enhancing its quality by exploiting the developments in the world of knowledge, which have had an impact on the development of information and communications technologies, radically changing the performance of administrative practices for the better.

- Achieving the goals of those dealing with the public service, whether employees or external clients, especially since the technologies produced by technological development have given them the ability and advantage in determining the institutions with which they wish to work.

The mandatory transformation of administrative practices functions, and tasks within the public service to electronic practices in line with the significant progress in the world of information and communications technology. This matter is no longer merely a motivation, but rather a justification and a challenge at the same time.

- Citizens are usually connected to the services provided by public facilities. Public facilities provide all the necessary facilities to ensure the best possible service delivery. This is where the role of e- administration becomes apparent, as was the case following the emergence of the COVID-19 pandemic.

- Keeping pace with international conditions, or what is known as globalization, organizations, especially public facilities that provide benefits to citizens, that are unable to keep pace with the standards of globalization and development will be doomed to disappear and become a source of other social phenomena.

- Public facilities, regardless of their activities, need an information system and database to deliver their outputs according to desired and appropriate standards.

- Reengineering public facilities to save costs and time, giving them an advantage over other organizations, especially those belonging to the private sector, as they compete with the public sector, in addition to achieving their operational objectives.

- Giving employees and customers the ability to participate in the management of public facilities and administer their affairs through available electronic programs, such as conducting electronic public opinion polls.

- It allows for the promotion and rewarding of employees in a more deserving manner, as it highlights the individual performance of each employee and allows for the identification of organizational gaps in both material and human resources.

- Establishing a digital culture among employees and customers, making them feel valued by the country's leaders and senior leadership.

- The most effective way to monitor the performance and quality of public service delivery is through the establishment of electronic portals for citizens to submit their complaints. Public services still suffer from negative administrative phenomena such as favoritism, nepotism, bureaucracy, arbitrariness, and others.

- Aligning with the aspirations of society's components, especially the youth, who make significant use of cyberspace and utilize electronic tools effectively.
- Establishing transparent public administration in line with the aspirations of society's members.

Comprehensive development is no longer limited to the economy, as previously known, but rather extends to all essential fields, and investment in the world of knowledge is the most important means of achieving it, including the technological field.

3- The Concept of electronic administration:

After discussing a number of motives that necessitate the activation of electronic management within public facilities, and the transformation in the performance of tasks and functions to avoid the negative administrative phenomena experienced in traditional administration at the public facility level, and to remove the ambiguity surrounding this modern administrative concept, we must develop a set of definitions to understand the content and substance of e- administration, particularly the importance of its embodiment.

We also see that electronic management is composed of two words: administration and electronic. Administration refers to a human gathering united by an organizational framework subject to a set of rules and regulations, encompassing material, human, and technical resources, striving to achieve a set of objectives for which it exists. Electronic is a term associated with the world of the internet, encompassing tools, software, applications, and technologies that collectively constitute information and communications technology.

This administrative concept has been of interest to many researchers and those interested in organizational thought, as it has become a source of development and distinction for all actors of comprehensive development, and a definitive abandonment of administrative phenomena that undermine all the foundations for the advancement of all sectors, especially those directly related to the aspirations and needs of citizens. In general, a set of technical definitions can be cited to facilitate the reader's understanding.

electronic management "is the development, dissemination, and implementation of policies and laws, and the creation of the infrastructure that will enable information and communication technology to create a knowledge-based society in which secure, more effective, and appropriate electronic services are available to all segments of society, such that these services are delivered with the least possible effort, time, and cost, using various electronic outlets" (Al-Qabilat, 2014, p. 25)

It is further clarified as "information resource management that relies on the internet and communication networks, tending more toward abstracting and concealing things and their associated resources, to the point where knowledge capital has become the most effective factor in achieving its goals and the most efficient resource" (najm, 2008, p. 157)

It is additionally defined as "a modern approach that relies on executing all business and transactions between two or more parties, whether individuals or institutions, using all electronic means, such as email, electronic exchange, and electronic newsletters" (Saddam & Alaa, 2011, pp. 53-75)

Muhammad Samir Ahmad defined it as "the use of advanced information technology systems to enhance the role of the organization's strategic management and raise its level of performance. It also works to design and implement a plan to use information technology to accomplish the organization's work, helping it achieve the application of the e-business model and build and strengthen close relationships between the organization and its customers, partners, and suppliers, characterized by continuity and effectiveness" (Ahmad, 2009, p. 42) .

As is clear from the technical definitions. electronic administration is a modern administrative concept based on the use of the internet and its resulting electronic tools and methods, information and communication technology, and business networks to carry out administrative functions such as planning, organization, leadership, electronic oversight, and organizational or public service functions such as production, marketing, finance, recruitment, recruitment, training, and education through electronic networking. This is done to shorten implementation time and reduce costs, facilitating the use of public service seekers with complete transparency and

democracy. It is an administrative concept closely linked to the world of technology, which is characterized by rapid change and development.

To clarify this concept, we can mention its distinguishing features, through which we can determine the difference between it and traditional administration. among these features, we mention the following:

- It is a paperless organization, which is one of the most important drivers of the transition to electronic work, as it saves the administration the costs and risks of using paper, similar to what was the case in traditional administration, where the process of using paper exposes it to damage, loss, and high costs. Instead, electronic archives, email, and other methods are used.
- An organization without time constraints: Its work system differs from traditional organizations, which are restricted by time constraints. With a shift system, the employee or service applicant can perform their duties or request their services at any time they wish, 24 hours a day, including holidays and other activities. This is similar to what the Ministry of Housing is currently doing regarding housing applicants and registration in Adl 3 through the portal and website outlined in this regard.
- Organization without a place: Traditional administration, before carrying out its activities, establishes vast structures to achieve its goals. However, in e-administration, its structure exists online.
- Organization without structures: This takes the form of network organizations linked to the internet. For example, we currently find many emerging institutions operating online, such as the Oued Kniss Foundation, the Yassir website, and others.
- Clarity and speed: This has provided a strong incentive for administrations and public services to shift to e-administration, as it ensures speedy performance and interaction, unlike traditional administration, which intertwines administrative levels, communication lines, multiple offices, authorities, and supervisory processes.
- Flexible organization: It responds to all circumstances and changes occurring in the environment in which the facility and administration are located. The importance of this feature has become apparent following the outbreak of the COVID-19 pandemic.
- Direct Administrative Control: The information and communications technologies and systems incorporated into public utility systems enable monitoring of all activities and tasks within public facilities, the progress of services, and other functions. They provide protection for information and data, facilitate access to them, and ensure their proper use, particularly in decision-making and managing relationships between administrative levels within the facility itself.

4- Principles of electronic administration:

These can be summarized in a set of principles:

- Providing services to citizens by creating a work environment with diverse skills and competencies prepared to use modern technology. This type of management is based on the use of information, extracting results, proposing appropriate solutions for each problem, and utilizing them effectively within the management environment.
- Focusing on results by realizing their outcomes on the ground, with regard to achieving citizen interests in terms of effort and time, providing continuous service around the clock, and completing work efficiently and quickly.
- Continuing change: By transforming the traditional management approach with the use of technology, activating and applying it at the individual level, keeping pace with the renewed and rapid changes in the world of technology and communications.
- Reducing costs: Investing in information and communications technology contributes to the emergence of a type of competition, which provides the advantage of improving performance and quality, in addition to reducing costs

for the beneficiary group, as the facility management seeks to attract a larger segment of the public, such as mobile phone users.

- Privatization and security: achieving the highest degree of confidentiality and credibility, which contributes to building trust between the management of the public facility and its public.

These principles contribute to the creation of a special management system in the field of public facilities and public institutions, known as e- administration, by leveraging modern technology and eliminating traditional methods. This facilitates the beneficiary's ability to follow up on the information and services provided without spatial or temporal barriers, which further enhances a sense of trust between the citizen and the public administration or public facility.

5- The concept of public utility:

A public utility is considered a tool used by the state to implement public services, its primary objective is to meet the public needs of all those directly related to citizens. Public utility definitions' vary, depending on the organic (formal) and objective meanings, in addition to the mixed criteria.

- According to the organic or formal criteria, a public utility is an activity undertaken by a public legal entity with the aim of achieving a public benefit for individuals, it is a form of administrative activity, the goal of which is to satisfy a collective need. By analogy, any organization established by the state and subject to its management with the intent of achieving the needs of the public interest is a public utility, such as a municipality, judiciary, or security.

- As for the objective standard of the public utility, it is concerned only with the nature of the activity itself. According to this standard, the public utility is any activity or project that aims to achieve the public benefit without regard to the organization or body that undertakes it (Baal, 2002, p. 205) .

In this regard, Dr. Muhammad Farouk Abdul Hamid defines it as "any activity undertaken by a public person with the intention of satisfying public needs" (Farouk, 1987, p. 6) .

As for the mixed standard, the proponents of this approach combined the previous organic and objective approaches, based on the premise that a public utility is based on a set of elements, some of which are derived from the organic link between the project and its management, and others from the content of the activity undertaken by the project.

It is not possible to rely on one of these two elements without the other to provide the correct meaning. Rolland defined it as "a public utility project that is of public benefit, subject to the control or supreme management of rulers, and aims to satisfy the general needs of the public due to the inadequacy or absence of private projects that achieve these purposes. It is subject to a minimum of special rules, i.e., a special and exceptional legal system" (Awabdi, 2005, pp. 57-58).

From the previous definitions, we conclude that the term "public utility" refers to any activity undertaken by the state with the aim of achieving the public benefit, whether these activities are owned and managed directly by the state or are in the hands of the private sector and subject to its supervision and oversight, and whether these activities are called a public administration, a public body, or a public institution.

6-Public utility: Between elements and types:

6-1- Elements of public utility: the elements of public utility are based on the following:

- Meeting public needs: The basis and justification for the existence of any public utility is to meet the public's general needs, free of charge, in accordance with the requirements of citizens' public life.

- A public utility is a public project or organization: The existence of a public utility requires coordination and organization between its various components (human and material) in a manner that allows it to fulfill its role in meeting public needs.
- Linkage to public administration: That is, it is linked to the central administration, whether in terms of its establishment, management, administration, or abolition.
- Subjection to an exceptional legal system: This means that it is subject to a legal system that differs from that governing the private sector and the activities of individuals. This is particularly evident in the so-called basic principles governing public utilities.

6-2- Types of Public Utilities: public utilities vary depending on the nature of their activities and the objectives they specialize in. They are divided into three categories, as follows:

- Administrative public utilities: These are institutions that engage in activities of a purely administrative nature, and are used by the state and regional groups (states, municipalities) as a means of managing their administrative public utilities.
- Industrial and commercial public utilities: These are facilities whose commercial or industrial activities are similar to those undertaken by private industrial establishments, and are used by the state (states, municipalities) as a means of managing their industrial and commercial facilities. They are subject to the provisions of both public and private law, providing them with the flexibility and conditions to ensure rational economic efficiency and achieve their objectives in the shortest possible time, at the lowest cost, with the least effort and quality (Labbad, 2010, p. 203).
- Cultural and scientific public utilities: These are facilities that specialize in activities and achieve objectives of a scientific and cultural nature, such as universities and educational schools.
- Professional public facilities: These facilities often take the form of a union and are managed by a council elected by members of the same profession, such as the Bar Association in Algeria, the Pharmacists Association, etc.

7-General principles governing public utilities and the most important problems facing their performance:

7-1- General principles governing public utilities:

In order for public utilities to achieve the public interest for all beneficiaries, islamic jurisprudence has established foundations and principles unanimously agreed upon by jurists that govern all public utilities, whether administrative, economic, or social:

- The principle of continuity: Public utilities play a significant role within society, regardless of their activity, by providing services to the public on a continuous and ongoing basis. Their cessation would cause significant harm to the public interest.
- The principle of equality among beneficiaries: The entities responsible for the operation of public utilities are committed to providing their services to all those who request them from the public who meet the eligibility criteria, without discrimination.
- The principle of neutrality of public utilities: This is a result of the principle of equality before the public utilities for citizens. Neutrality is the failure to favor a public utilities in a particular direction, which goes beyond the principle of equality.
- The principle of free public services: This principle is linked to the fundamental idea that the services they provide are essential and must therefore be provided free of charge. However, this principle is fraught with difficulties, particularly in light of rising state expenditures and increasingly demanding returns and profit, making it difficult to apply this principle on a broad scale.

7-2- Problems with the performance of public services in Algeria:

problems with service performance and provision are common to almost all public services, to the point that they have become a well-known habit among members of society. In general, they can be summarized as follows:

- Slow service delivery due to the lengthy and complex administrative procedures and processes for service production and provision.
- Discrimination in service provision due to the prevalence of bureaucracy and mediation.
- Lack of communication between the administration of public services and the public, which leads to a gap between the services provided and citizens' expectations.
- Weak monitoring and evaluation systems for public services and the lack of effective oversight.
- Misuse of available organizational resources in service production and provision, due to negligence or indifference.
- The prevalence of administrative corruption in the organizational structures and relationships of public facilities, negatively impacting workers, work values, and service delivery.
- Failure to maintain a high level of service delivery due to the absence of quality control standards.
- Lack of technological programs and equipment within public facilities.

8- Requirements for the transition to e-administration for Algerian public facilities:

To implement any administrative project, especially if it aligns with and keeps pace with the development requirements imposed by globalization, it becomes necessary to provide a set of requirements and create the necessary material, human, and organizational conditions for the implementation of e-administration. This is the case with the Algerian state's current approach, given the strategic objectives it seeks to achieve.

As we saw previously, it is an effective means of eliminating all negative administrative practices, such as bureaucracy, favoritism, red tape, and administrative slowness, and replacing them with qualitative administrative practices based on high-quality, simple, and easy performance. Communication lines are clear, both within the facility itself and between the public facility and the service seeker.

This is particularly true with regard to responding to the concerns of citizens, who are the focus of the state's attention, taking advantage of the information revolution and information and communications technology, as well as in the field of preparing and making decisions. Therefore, a set of requirements must be available to implement the e-transformation in administrative functions across all public facilities. Among these requirements, we mention the following:

8-1- Administrative requirements: this concerns the development of an effective administration that undertakes the planning process, as the state has done. Algeria is preparing the High Commission for Digitization, which specializes in and oversees the process of developing plans, monitoring their implementation, and converting traditional services to electronic services, as well as involving consultants and specialists in this field. This is because digitization is considered a process of change, and change may encounter resistance even from those in charge of these facilities and administrative organizations, regardless of their scope. In this regard, we may find specific requirements, such as:

- Administrative commitment: Administrative leadership is the fundamental pillar of the success or failure of an e-government project, as it creates the appropriate conditions for it, or vice versa. Likewise, follow-up and providing feedback on information, as well as leaders' conviction in the field of applying information and communications

technology across all organizational levels, are considered one of the most important factors in achieving administrative success, whether in the process of transformation or electronic implementation. - **Organizational Structure:** Organizational structures in e-government differ, as they are based on network structures and matrices, unlike traditional governance. Therefore, this element is linked to the previous one and falls within the framework of the development taking place in information and communications technology. Consequently, changes appear in structural and organizational aspects and in administrative methods, as administrative levels are eliminated, others are merged, and others with greater efficiency and effectiveness are created. Here, specialists insist that this element be within a gradual developmental timeframe.

- **Human Resource Qualification:** This is the fundamental pillar of the e-administration transformation and the source of knowledge, innovation, and creativity. Here, the importance, quality, and system of education and training culture within the public sector emerge, in line with the significant development taking place in the world of information and communications technology, while also promoting trust and an e-culture within the community, which is linked to public sector services.

8-2- Adapting the Legal and Legislative System: As previously mentioned, the lack of trust and electronic culture among citizens, and the preference for traditional transactions, stems from a lack of trust and security in electronic means. This is due to the lack of a legal framework that guarantees rights in transactions. Many individuals are exposed to fraud via electronic means through fake and fictitious accounts that lack credibility. Therefore, providing a legal system in this context can contribute to embodying the electronic transformation in administrative practices.

8-3- Human Requirements: This element is the source of technological development and administrative change. Therefore, the human element is of particular importance in the transition to electronic work and performance, as it invented it and worked to develop it until it reached its current status. The human requirements for electronic jobs are linked to the skills and competencies possessed by human resources that qualify them to practice and contribute to the electronic transformation in both its aspects, whether in the hard infrastructure, which includes connections, applications, and software, or the soft infrastructure, such as browsing services, new businesses, etc.

8-4- Material and technical requirements: This is the most important requirement for the digital and electronic transformation of administrative functions. As we currently observe, this element often stands as an obstacle to electronic transformation. The infrastructure includes tools, media, networks, technologies, and the ability to connect the organization's functions to internet services, providing computers and their software, and electronic applications. These requirements aim to achieve significant results across various facilities and fields, contributing to the flow of information from available technical tools such as the internet, intranet, and extranet.

8-5- Security requirements: This is the basis for using e-administration because it provides confidence, security, and assurance to its users. This is especially true given the ease of hacking, information theft, and easy access to encrypted accounts, which constitutes an obstacle to the use of digital technologies. Therefore, the importance of protecting all electronic files through security and confidentiality is evident. This is to protect information related to public services, given its negative repercussions, both in relation to the interests of citizens and the interests of the state, based on its institutions and facilities.

9-The Importance of Activating the Concept of E-Administration Within Algerian Public Facilities:

The importance of activating electronic management is evident in keeping pace with the qualitative developments in the world of technology and the world of information and communications. This is because the survival and continuity of organizations depends on the ability to adapt to all changes occurring in their external environment, as they are part of the general system (society), which is affected by and influences them. The following are the importance of transformation for public facilities:

- Facilitating the way public facilities operate and improving the services they provide to their customers.
- Establishing clear, effective, and informed lines of communication, unaffected by the multiple administrative levels of public facilities, known as tiered organizational structures.

- Contributing to building a rich database and information, which is important for constructing and making successful decisions.
- Establishing transparency in the relationships that govern organizations with their customers, and even within them.
- Shifting from physical effort to intellectual and cognitive effort, by converting tasks and functions into electronic ones, avoiding traditional obstacles such as wasted effort, time, and communication barriers.
- Providing continuous service to those seeking it via the Internet, which knows neither time nor place.
- Contributing to transforming organizational structures into networked structures that recognize the importance of individual competencies and capabilities by providing rapid information storage and flow across all administrative directions, avoiding centralization.
- Reducing the costs often associated with human resources, whether in attracting, employing, training, or developing them, and shifting to an electronic form, which requires minimal work that transcends geographical constraints or large buildings. Providing services through e-administration requires a limited number of competent and skilled workers in the use of information and communications technology.
- Improving the effectiveness of public services in terms of performance and decision-making. Therefore, e-administration is considered an entry point for developing organizations and eliminating traditional administrative shortcomings through the use of technological tools, which have a distinct impact on developing societies and providing electronic services in a short time and with minimal effort.
- Contributing to the decision-making process through the ease of collecting and absorbing information produced by information and communications technology, as well as the principle of participation in the various stages of decision-making, especially in the event of a problem affecting the operation of the public service.

10-Obstacles to implementing the concept of e-administration within Algerian public facilities:

- As we saw previously, achieving a shift to an e-functional model requires requirements, and this is a challenge in itself. From here, we conclude that this project or administrative transformation faces obstacles, including:

10-1- Organizational Obstacles:

- Administrative change comes from within, and if the administration, starting with its leadership, is not convinced of the transformation, all processes undertaken in this context will fail, based on organizational planning as the primary administrative function. This is compounded by a lack of coordination at the leadership level and a failure to define the parameters for implementing economic services and information. Among these obstacles, the following can be mentioned:
- Lack of awareness of the objectives of the e-transformation, whether for the administration, its employees, its users, or those benefiting from its services (lack of vision for implementing this project).
- Lack of interest in e-transformation by leaders. Therefore, Algeria currently requires administrations to convert their functions to e-services. This highlights the importance of administrative support as an important step towards implementing the concept of e-administration.
- Some sensitive and private public facilities refuse to use modern technologies.
- Preference for traditional methods over digital and electronic methods, whether for employees or citizens.
- Administrative centralization of public facilities hinders and obstructs any administrative change.

10-2- Technical Obstacles: some public facilities in Algeria still suffer from a lack of even the most basic technological tools, such as:

- Power outages and weak and fluctuating internet flow.
- Disparities between facilities in terms of technological equipment.
- Lack of computer literacy among some public facilities.
- Lack of information security programs and privacy concerns in some public facilities.

10-3- Human Obstacles:

- Poor educational levels in the field of digitization and technology, and difficulty communicating via modern technologies.
- Absence of training courses and retraining of employees in the field of digital technology.
- The costs of using advanced technologies, which are not commensurate with the budget of employees or citizens, are high for the acquisition of advanced devices.
- Not all members of society own technological devices (some groups own devices while others lack them).
- The substitution of machines for humans, resulting in redundancies and a lack of need for human resources, has led to the emergence of resistance to transformation for fear of losing positions and privileges.
- The lack of employees or users with the necessary skills to use computers or internet applications.
- The preference for traditional methods over electronic ones due to limited electronic literacy.

10-4- Financial Obstacles:

- The cost of acquiring and using technological tools.
- The costs of equipping with digital tools, infrastructure, establishing networks, and developing hardware and software.
- Qualification and training processes and the resulting costs in the field of implementing digital management.
- All programs are now non-free and encrypted, imposing additional costs on public services.

10-5 Cultural and Educational Obstacles:

- The lack of standards in the field of digitization and information technology hinders the construction of an information society and the lack of educated personnel.
- The lack of interest in computer languages and software.
- Poor English proficiency among employees, even those in important positions.
- Lack of confidence among employees and citizens in using technological devices and tools, similar to what is currently happening with housing applicants.

10-6 - Legal and legislative obstacles:

- Failure to update legislation that stipulates penalties for piracy, software hackers, and electronic accounts, especially with regard to bank accounts and private documents. Many individuals have been subjected to fraud by certain institutions and fake accounts that conduct sales, for example, via cyberspace. Many have lost money by using gold cards.
- Lack of flexibility in legislation with the development of cybercrime.

11- Conclusion:

From the above, whether through our exploratory tour or through our experience in the world of employment, it can be said that the implementation of the concept of e-administration in Algeria is still far from what was hoped for, despite the results that public facilities and citizens can reap from it, especially in its service aspect, as it is the foundation of sustainable and comprehensive development, which means progress in all sectors. On this basis, the Algerian state focuses its efforts on this aspect, such as postal services, banks, housing, taxes and their collection, in order to avoid the negative administrative phenomena that were known in the traditional approach under various names: digitization, e-administration, remote administration, and virtual administration. This project is still proceeding at an unsatisfactory pace, despite the establishment of independent governorates for this program. The registration process for the AADL 3 housing units is a prime example of this. Citizens have tried numerous times to access their portal, which has led them to appeal to the authorities to return to traditional methods, under the slogan of "paperwork" instead of "digitization," meaning relying on paper to be more reassuring and secure. Providing services, regardless of financial transactions, citizens still prefer to withdraw their money by check rather than by gold card due to its lack of security. This is directly related to the lack of electronic culture and the lack of trust and security, which are among the most significant obstacles to implementing the concept of e-administration within Algerian public facilities.

Hence, we see the importance of developing a set of recommendations to implement the concept of e-administration as a mechanism for reforming Algerian public facilities. These recommendations revolve around the following:

- The need to change mentalities toward everything digital and electronic, by spreading e-culture among various facilities, institutions, and citizens, as many citizens prefer paper transactions to electronic transactions.
- Human resource development, as many employees, even those in high positions, are not proficient in using computers.
- The need to provide a legal framework to protect the personal data of individuals or institutions, given the proliferation of smart devices and the emergence of electronic applications with serious potential for hacking.
- Training in foreign languages, as they are the language of computers and smart devices.
- Providing a quality infrastructure in the field of media and communication. For example, some vital service departments, such as post offices and municipalities, still suffer from the simplest requirements for implementing electronic administration, such as recording daily fluctuations in the Internet networks.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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