

**Digital Governance as a New Mechanism for Achieving Public Service Quality
in the Context of the Emergence of Digital Economy in Algeria**



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Abstract:

Embracing the digital economy, Algeria's public administration stands at a crossroads - seeking to modernize public service through the transformative lens of digital governance. This paper tackles the pivotal question: how can this digital metamorphosis elevate the quality and efficiency of public service for Algerian citizens?. Through a descriptive-analytical approach, we navigate digital governance, revealing its core pillars for Algerian integration: robust infrastructure, skilled workforce, and future-oriented strategy. To conquer the digital frontier, Algeria must invest in a three-pronged strategy: retool institutions for seamless integration, upskill its workforce, and equip them with cutting-edge tools. Building bridges with private partners and meticulously adapting global solutions will complete this tapestry of progress, ensuring a vibrant future rooted in efficient, citizen-centric services.

Keywords: Digital governance; Public service; Digital Economy; Digital divide.

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Introduction:

The global landscape has been irrevocably altered in the wake of a transformative digital revolution. Concepts like digital governance, the digital economy, and globalization have emerged, prompting nations to adapt and embrace this paradigm shift. To maintain stability and secure a competitive edge in this new international community, navigating this transition to a digital economy is no longer optional but essential.

Consequently, effective public sector governance becomes the cornerstone of any successful strategy for public administration reform. This necessitates the active participation of diverse stakeholders through innovative methods and mechanisms. At the core of this endeavor lies the meticulous governance of public institutions across all dimensions and structures. This meticulous approach, often termed 'digital governance,' fosters transparency, minimizes bureaucracy and elevates the quality of public service. By strategically redesigning and restructuring public policies, and fostering flexibility, inclusivity, and efficiency, nations can meet the challenges of the digital age and create an environment conducive to capitalizing on its immense potential.

The digital economy's influence rivals traditional revenue sources like oil in some countries, so the imperative for robust digital governance has never been more pronounced. Embracing this imperative will empower nations to keep pace with the new international order and thrive within it.

1. Research Problem:

Based on the above, the following question can be raised:

How can digital governance contribute to improving public service in Algeria?

From the main question, some sub-questions can be highlighted:

- What is the theoretical background of digital governance?
- What mechanisms are necessary for applying digital governance in the Algerian public sector?
- How does digital governance contribute to the promotion of the activity of public institutions in light of the Algerian state's orientation towards the digital economy?

2. Research Hypothesis:

Based on the research problem and the sub-questions, we can formulate the following main hypothesis:

- « Public institutions need digital governance to achieve their governance goals in the context of adopting the electronic economic approach. »

3. Research Objectives:

The objectives of the research are to:

- ✓ Understand the conceptual framework of digital governance in public institutions, by automating the tasks of employees and improving their performance by implementing the digital transformation project in all administrative tasks and activities, and making the information system in the organization more flexible and effective than before.
- ✓ Improve the quality of services provided to citizens at a lower cost, faster, and 24/7, which makes the virtual aspect of these activities reflected in the practical reality of the institution.

4. Research Importance:

The importance of the research lies in highlighting the essential role of digital governance, which has become a necessary option for governments in the context of adopting an economic model that relies on digital management, innovation, and information and communication technologies in the management of government facilities, i.e., the transition from the rigid public institution system to the productive electronic government institution system, which is called the digital public economy.

It is worth noting that digital governance is often less costly and effort-intensive and of better quality than traditional governance methods, which achieves further gains and development for public institutions and reduces the risk in the work environment.

5. Methodology:

In this study, we adopted the descriptive-analytical approach, which aims to explore the concept of digital governance and its impact on the quality of public service in the public sector in the context of the Algerian public administration's adoption of the digital economy approach. We also aim to clarify the most important results of the digital transformation outputs in the sectors that have adopted the concept of the digital economy.

First Axis: The Conceptual Framework of Digital Governance - Public Service

1. The Concept of Digital Governance

a. Concept of Digital Governance

Digital governance represents one of the main pillars for improving public service in the public sector, due to its great importance as an effective mechanism for modernizing public administration. The word "governance" is derived from the Greek word "Kybrnan", which means supervision and leadership (Fares, 2009). The concept of governance one of the concepts that has several definitions in the

academic world because it shares many economic, organizational, financial, and social areas of government organizations, which directly affects society and the economy according to the nature of the system in any country (Suleiman, 2006).

a.1. Linguistic Concept of Governance:

Governance is a term that means rationalizing various administrative tasks and activities in institutions to establish a kind of control and continuous monitoring by partners and beneficiaries of the service, in support of greater transparency, accountability, and justice in the distribution of services with all quality and excellence. When viewed from the administrative concept perspective, governance can be said to be "a set of laws, systems, standards, and procedures, aimed at regulating the nature of the relationship between the administration and citizens to achieve quality and excellence in performance" (Majid, 2021).

a.2. Definition of Digital Governance:

This term emerged with the emergence of digital technology and network communication, derived from the original word of ordinary governance, but with different mechanisms of use. After previously relying on traditional means and classical theoretical frameworks, it has become more advanced and effective than before thanks to the use of modern technologies and the Internet. Therefore, it can be said that digital governance is "the use of information and communication technology in public administration, followed by changes at the level of organization and new individual preparations" (Hamdaoui, 2001).

According to Henri François, digital governance is "a set of actions and behaviors that include digital information for the administration, where transparency and efficiency are the golden rule to serve the citizen to the fullest" (François, 2012).

In other words, all administrative work and activities carried out within the framework of institutional digital transformation have several benefits and positive effects in terms of improving the quality of public service for citizens.

2. Characteristics of Digital Governance in Public Institutions:

According to (Iman, 2009), the most important characteristics of digital governance in the organizational and institutional field are as follows:

- ✓ Transfer of the responsibility of modernizing public institutions to the citizen as the main partner in evaluating the quality of electronic public services provided remotely.
- ✓ Complete transparency in providing information and detailed data on public services through the network to reduce administrative and financial

corruption through citizen participation in holding government officials accountable.

- ✓ Use of information technology tools in institutional communication with other organizations and social partners involved in political and administrative decision-making.
- ✓ Finding new ways to solve administrative and organizational problems in the institution, such as managing meetings and meetings via video conferencing over the Internet.
- ✓ Providing new sources of funding through the use of new methods and approaches adopted in the digital economy (modern public management).

3. Objectives of Digital Governance in the Public Sector:

Digital governance emerged through several experiences and rounds of conventional governance through the years of political and administrative reform in Western countries, to move in turn to developing and emerging countries. Digital governance is known to have two main objectives, which are:

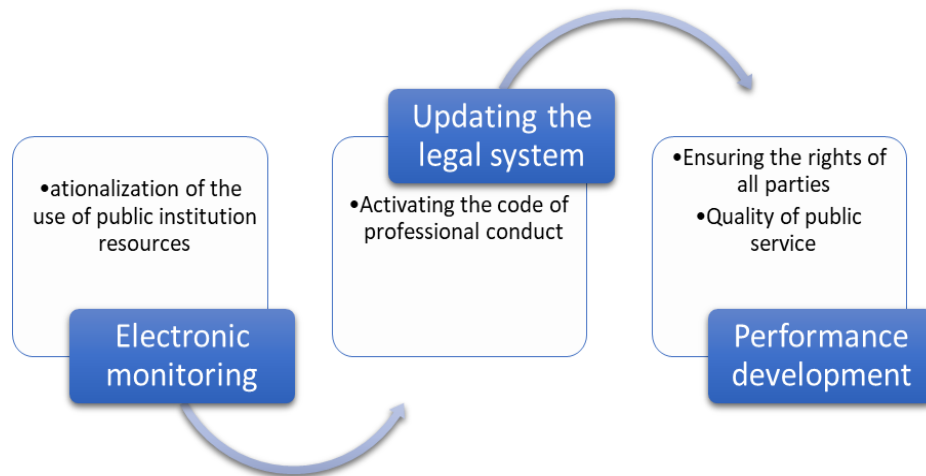
a. Achieving efficiency and effectiveness in managing state resources:

- By rationalizing the exploitation of state resources in public institutions in a way that reduces waste.
- Achieving continuous follow-up by the senior management of all branches and units affiliated to it to ensure the smooth running of all work and activities that are concerned with providing a public service of quality and credibility.

b. Ensuring the Rights of Customers (Service Beneficiaries):

- This means achieving citizen satisfaction through the activation of the code of conduct and ethics and ensuring the application of laws that protect citizens following the standards of integrity, transparency, and justice. For this reason, most countries have sought to moralize the public service and control it by laws and regulations that seek to achieve the objectives of the general policy set for each country.

Figure (01): Objectives of Digital Governance in the Public Sector



Source: (Majid, 2021, "Electronic Governance and Mechanisms to Combat Administrative Corruption")

2. The Nature of Public Service:

a. Concept of Public Service:

The diversity of perspectives and theoretical trends of researchers who have addressed the concept of public service or what is known as government service, has led to the multiplicity and diversity of definitions of it. There is no specific and accurate definition of the concept of public service. Most researchers associate it with the public interest or government policy (Fouzia, 2021). Among these definitions, we find:

The definition according to French administrative law: "Public service is that which is traditionally considered a technical service, carried out in general using equality, continuity, and adaptation to achieve the public interest" (Hussein Abdel Hamid, 1997, pages 109-110).

It can be said that the term "public service" refers to the relationship that brings together the public administration and citizens by providing their various needs through public facilities and administrative bodies (Thabit Abdel Rahman, 2003, page 145).

b. The Concept of Digital Public Service:

Digital public service is a service that can be provided remotely by the public administration (Evanschitzky, 2007), through the use of digital technology in administrative management, which produces a new type of activities and businesses that are characterized by accuracy, speed of performance, lower cost, and quality of services provided.

c. Criteria for Digital Public Service:

Digital governance works to improve the level of public service by adopting several operational bases for change, the most important of which are (Ghalem, 2018):

❖ **Modernization and development:** The adoption of digital technology in various administrative activities in public facilities contributes to the development of institutional performance in a way that changes the nature of routine and rigid services to high-quality services, such as updating the banking sector, public transportation, paying gas and electricity bills, and electronic payment using a credit card to drive the wheel of development and upgrade public service.

❖ **Continuity:** It is an ongoing service that is linked to meeting the needs of citizens, which requires the development of well-defined plans and strategies that preserve the continuity of public service even if public institutions are exposed to factors of chronic stoppage due to strikes, natural disasters, or other factors.

❖ **Justice and equality:** It is a major feature in the management of public service in terms of non-discrimination between citizens based on color, race, sex, religion, or political affiliation while providing the service free of charge.

Second Axis: Requirements of Digital Governance in the Public Institution

Digital governance seeks to develop and improve public service in government institutions through an attempt to satisfy the beneficiaries of its services, meet their needs, and meet all their desires. To achieve this, it is necessary to provide several essential requirements that can be identified as follows:

1. Achieving interaction between the public administration and the beneficiaries of the service: through opening communication channels to involve all stakeholders in the change process, and the transition from using traditional management to applying the digital management model. This is achieved through (Hassina, 2014):

2. Relying on Public Relations: This requires improving the institutional communication policy with all stakeholders that have a relationship with the public

institution in terms of organization and services. This includes giving great importance to the opinion of citizens and customers, and correcting any distortion if found in the performance of employees when providing services. Using digital technology in the communication process can help to improve the effectiveness of public relations by making it easier for the public administration to reach citizens and businesses.

3. Promoting Digital Democracy: This requires expanding the use of digital technology in all administrative transactions in the public institution and providing all information and data on its websites to activate the role of accountability from citizens through expressing their opinion about the services and transactions that concern them, to facilitate the processes of taking care of their daily concerns under the required standards.

- **Protecting the electronic data of citizens:** This is an important requirement in terms of providing trust to the customer in the field of protecting his personal and professional data from theft or loss when requesting digital services from the relevant public institution, which leads to achieving social satisfaction and enhances the trust between the public administration and the citizens.

- **Promoting neighborhood media:** By encouraging the culture of social communication in the internal and external environment of the institution to involve all stakeholders in public service in making official decisions that concern the affairs of citizens, and inform them of the importance of the measures taken and working to simplify them into components that are easy to understand by the ordinary citizen. In addition, this policy requires the care to publish the addresses of the websites of public institutions and their email addresses over the Internet to facilitate the process of communication with citizens and social and economic partners in the environment surrounding the institution.

4. Training of Staff: Training programs in public institutions contribute to improving the levels of employees in the field of performance and communication by intensifying training sessions and training courses in the field of information and communication technology during service to integrate all employees in the digital transformation project in the institution and reduce the phenomenon of resistance to change among them, and this guarantees the success of the strategic objectives set by the higher authorities in the state.

5. Motivating Employees: Activating the wage system, which helps to encourage employees in public institutions to make more effort in developing their skills and functional competence and creating an atmosphere of cooperation and solidarity within the institution that improves the overall performance and increases the quality of services provided.

6. Activating the Code of Professional Conduct in the Institution: To control the behavior of employees in public institutions reduce nepotism and negative bureaucracy and transform ethical values into a basic basis in the social system (Husseinah, 2014), in addition to codifying these ethical behaviors and making them regulatory controls in the field of administrative dealings inside and outside the institution, within the framework of the general law that runs the public administration of the state.

7. Adapting the legislative System Following the Principles of Digital Governance: By enacting laws and legislations that are in line with the new changes in the field of applying information and communication technology in improving the quality of public service and defining a specific law for digital transactions in the public administration that ensures the smooth running of electronic transactions instead of paper transactions and establishes an effective database that is characterized by flexibility and superior protection from hacking and theft.

8. Improving the Digital Governance Infrastructure: The availability of the digital governance infrastructure in the public institution is considered one of the most important factors that require the success of the digital transformation project in the government sector in general, through the availability of several elements, the most important of which are:

- Providing the necessary digital means and equipment to build a digital base and electronic network on which the pillars of digital governance in the public institution are based.
- Providing a modern internal and external communication network connected to the computer systems in the institution that has a specialized database in the field of work of the institution and is connected to the international information network to facilitate internal and external communication between employees and citizens.
- Providing electronic applications and management programs and updating them to facilitate digital administrative processes and improve the quality of public service provided to citizens.
- Ensuring the protection of electronic information and maintaining its confidentiality.

Third Axis: The Strategy of Governing Public Institutions as an Option for Moving towards the Digital Economy in Algeria

Algeria attaches great importance to the digitization of public sectors to face the challenges of the digital economy, which has become an urgent necessity in light of the global market's trend towards shifting from traditional transactions in the field of free trade, energy, and hydrocarbons to exchanges in a wider way in

the field of digital technology, alternative energy, and even electronic services through the trend towards online work over the Internet and distance education as new alternatives that emerged during the spread of the Corona pandemic (Covid19) and have increased in expansion more and more until now, due to its importance in the field of diversifying the national economy and increasing national income, which enhances the position of the state in the global market and achieves stability and prosperity in Algerian society. According to the definition of the Organization for Economic Cooperation and Development (OECD), the digital economy includes "all economic activities that rely on the use of digital inputs, including digital technologies, digital infrastructure, digital services, and data, or those that help the use of digital inputs to support and significantly enhance them, including all producers and consumers, including the government" (OECD, 2020).

Based on this, the Algerian state has adopted a strategy that aims to encourage competition and innovation in the service sector by applying several mechanisms that encourage public institutions to move towards adopting a new economic system based on digital technology and modern communications through:

- 1. Creating a New Ministry that Deals with the Affairs of Start-ups and the Knowledge Economy:** It is concerned with developing a comprehensive innovation strategy by adopting an innovation policy that defines the main objectives and develops activity programs through coordination between the actors in the field of innovation (financing bodies, agencies, university laboratories, civil society organizations, etc.) (chetouane, 2014)
- 2. Establishing the National Council for Scientific Research and Technology:** This council evaluates the national policy for scientific research and technological development and coordinates with the public and private sectors to activate scientific research activities among them while identifying the major directions of the national policy in the field of scientific research and technological development
- 3. Establishing an Electronic Portal Dedicated to Start-ups:** It aims to facilitate administrative procedures when establishing companies and economic institutions and following them up to eliminate all bureaucratic obstacles they face.

As for the government sector, the Algerian government has outlined several reforms intending to modernize its public sectors to be in line with the mechanisms of the digital economy to benefit from the benefits of this new economic system. The beginning was with a focus on the banking sector, as it adopted a new approach by employing digital technology in digital banking services through:

- 4. Launching Electronic Banking Applications:** They work to improve the relationship between banking institutions and the customer and provide most banking services remotely, and among them (Shoam, 2023, page 430):

➤ MYSALAM application for Al Salam Bank

- BANXY application for NATIXIS Bank
- BEA-MOBILE application for The External Bank of Algeria

5. Adopting electronic payment services in the headquarters of the Algerian Post and public banks to facilitate the payment of bills, insurance, installment sales, and other services that are now done remotely (Daabouz, 2021, pages 86-87) and with the use of the biometric card through which money is withdrawn or transferred to reduce the burden of citizens' travel and reduce costs from the side of banking institutions and the customer.

6. Launching digital platforms in various sensitive sectors such as higher education, the justice sector, the education sector, vocational training, and other government sectors, the purpose of which is to improve the quality of services of these sectors that have direct relations with the interests of citizens and contribute to raising the level of the national economy.

Table 1: Digitalization Results in the Public Sector in 2023

N	Public Sector	Digitalization Outcomes in 2023	Targeted Goals
01	Finance	Launched the "Taxation system" information system across 38 tax centers	Coordinate all tax services and directorates across the national territory
02		Launched the "jibayatek" Taxation system management system application	Allows tax services to provide payment receipts (car coupon)
03		Developed the "Information" software	Specifically for the tax situations of taxpayers in the commercial district
04	State	Launched an integrated data management platform	Allows the production and updating of land surveying, real estate registration, and national property interests

05	Property	Launched a real estate platform	A platform for consulting and delivering real estate survey documents remotely and paying taxes and fees remotely
06	Customs	Acquired a dedicated data center for the new information system	Develop the customs information system and expand the communication network with satellite stations
07	Education and Training	Updated the education and training platform	Digitize the transfer of students, entry and exit to the state, exceptional registration in the first grade of primary school, and teacher exchange
08	Vocational Training	Launched the "SIG" management platform	Digitize administrative and pedagogical activities
09	Transportation	Launched a digital portal for land and maritime transportation	Digitize all transportation operations and provide services remotely

Source: Echorouk Online Newspaper (Iman, 2023)

In addition to the above, several sectors have digitized their activities, such as the labor, employment, and social security sectors, the housing sector, and other public administrations, to improve the quality of their services and modernize their institutions in line with the internal and external developments in the digital environment.

The focus on digital governance as a new mechanism for sustainable development is an important economic requirement to encourage public institutions to change their traditional mode of operation, which is characterized by dependence on state sources of funding without relying on their resources and capabilities to create wealth, unlike what the digital economy offers in terms of public benefit in the field of improving the capabilities and efficiency of institutions, raising their level of capabilities, and improving the quality of their services.

Conclusion:

Digital governance, a blossoming approach to public service reform, flourishes in Algeria alongside the nation's embrace of the digital economy. This embrace sows fertile ground for numerous public sector projects, fostering a

vibrant digital environment crucial for development, resource diversification, and global economic advancement.

An intrinsic bond unites digital governance and public service, igniting the engines of both government institutions and national economic growth. To ensure this union bears bountiful fruit, we propose:

- ✓ Scrutinizing the structural composition of public institutions before crafting tailored digital governance rules.
- ✓ Investing in human capital, nurturing them with the digital and communication skills to navigate the modern landscape.
- ✓ Building robust infrastructure, equipping it with cutting-edge digital tools, software, and high-speed networks.
- ✓ Fortifying the digital fortress, safeguarding electronic documents with sophisticated programs and applications.
- ✓ Facilitating knowledge exchange through a tapestry of conferences and workshops woven within public institutions.
- ✓ Honoring the Algerian tapestry by adapting international experiences to its unique threads, while leveraging local expertise and university laboratories to weave impactful programs and applications.
- ✓ Forging strong partnerships with the private sector, stitching together a robust digital governance strategy.

Embracing these recommendations serves as the needle and thread, allowing Algeria to stitch together a thriving digital governance tapestry, propelling the nation towards a prosperous future.

References :

1. Boumediene, Y., & Chetouane, S. (2014, December 1). Innovation policy in Algeria and its role in promoting exports outside the hydrocarbons sector. *New Economy Journal*, 79.
2. Daabouze, K. S. (2021, October 1). The reality of electronic payment in Algeria. *New Economy Journal*, 86-87.
3. Evanschitzky, H. G. (2007). R.I.E-Services: Opportunities and threats.
4. François, H. (2012). *Governing together*. Québec: panphile le may.

5. Ghalem, M. A. (2018). E-government as an approach to administrative reform, theoretical foundations and mechanisms of application - the Algerian experience -. Egyptian Journal of Information Sciences, 222.
6. Hamdaoui, W. (2001). Strategy for organizational and administrative rehabilitation of the economic institution. Rehabilitation of the institution and maximizing the benefits of integration in the economic movement (p. 123). Setif: University of Setif.
7. Hassina, M. A. (2014, December 31). E-governance as an approach to developing public administration in Algeria. Journal of Economics and Human Development, 10(1), 144.
8. Hussein, A. H. (1997). Public relations and media from a sociological perspective. Cairo, Egypt: Modern University Press.
9. Iman, Z. A. (2009). E-government: An integrated administrative approach. Cairo, Egypt: Arab Organization for Administrative Development.
10. Kimoush, I. (2023, October 11). Echorouk Online. Retrieved December 4, 2023, from the results of digitization in 11 ministries: <https://bit.ly/4avH6JG>
11. Majid, M. A. (2021). E-governance and mechanisms for combating administrative corruption. Legal Journal.
12. OECD. (2020). Roadmap towards a common framework for measuring the digital economy. Retrieved December 11, 2023, from <https://bit.ly/3RwDApT>
13. Sadki, F. (2021). The role of digitization in improving public service in Algeria - an analytical study of local communities - (PhD thesis). Faculty of Media and Communication Sciences and Audiovisual, Constantine: University of Constantine 3.
14. Sakkak, M., & Habash, F. (2009). The role of social auditing in the context of socially responsible governance in the context of external openness. Setif: University of Setif.
15. Shoam, R. T. (2023, April). Digital transformation as a strategic choice in the context of the transition to the digital economy in Algeria. Journal of Economics and Environment, 422.
16. Suleiman, M. M. (2006). Corporate governance and the treatment of financial and administrative corruption. Cairo: Al-Dar Al-Jami'iyah.
17. Thabit, A. R. (2003). The modern approach to public administration. Cairo, Egypt: Al-Dar Al-Jami'iyah.