

Modernizing public service in Algeria within the framework of digital transformation

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Received: 19/05/2024; Accepted: 12/09/2024, Published: 30/09/2024

Keywords

*Digital management ;
Digital service ;
Digital transformation ;
Modernization ;
Public service.*

Abstract:

The digital and technological development in the era of digitization constituted a qualitative leap that was reflected in the reality of public services provided in various countries, including Algeria.

Which was not outside the circle of this digital modernity and kept pace to some extent with this development by improving and upgrading public services through simplified and efficient mechanisms to facilitate administrative procedures, thus establishing an effective e-government.

Algeria has adopted e-administration as part of its digital transformation strategy to improve public services and has introduced several platforms to facilitate public services, most notably the "bawabatak" platform to improve public services. This is a qualitative leap in the way public administration works in Algeria and a developmental model for institutionalizing e-administration in line with digital development.

عصرنة الخدمة العمومية في الجزائر في إطار التحول الرقمي

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تاريخ الاستلام: 2024/05/19 - تاريخ القبول: 2024/09/12 - تاريخ النشر: 2024/09/30

الكلمات المفتاحية	الملخص
الإدارة الرقمية؛ التحول الرقمي؛ الخدمة الرقمية؛ العصرنة؛ الخدمة العمومية.	شكل التطور الرقمي والتكنولوجي في عصر رقمنة التكنولوجيا قفزة نوعية انعكست في واقع الخدمات العامة المقدمة في مختلف البلدان، بما فيها الجزائر، التي لم تكن خارج دائرة هذه الحداثة الرقمية وواكبت إلى حد ما هذا التطور بتحسين الخدمات العمومية والارتقاء بها من خلال آليات مبسطة لتيسير الإجراءات الإدارية، ومن ثم إقامة حكومة إلكترونية فعالة. واعتمدت الجزائر الإدارة الإلكترونية كجزء من استراتيجيتها للتحول الرقمي من أجل تحسين الخدمة العمومية، واستحدثت عدة منابر لتيسير الخدمات العامة، ولا سيما منصة "بوابتك" لتحسين الخدمات العمومية. وهذه قفزة نوعية في طريقة عمل الإدارة العامة في الجزائر ونموذج إنمائي لإضفاء الطابع المؤسسي على الإدارة الإلكترونية بما يتماشى مع التنمية والتحول الرقمي.

1- Introduction:

Technological development has led to a digital revolution, transforming daily life, communication, work, and public services. Public administration has evolved to use modern technology for digital transformation. E-government is a new necessity, bringing public administration closer and improving service performance. Algeria is working towards digitization through digital transformation and competition among departments to improve public administration and develop digital models.

Hence, the question arises: To what extent has the performance of public services improved by keeping pace with digital transformations? To answer this question, a descriptive and analytical approach was adopted by enumerating, describing, and analyzing the most important features and elements of electronic management. The concept of public services, strategies for implementing them, and progress in their use were also discussed on the one hand, as were aspects of implementing electronic services on the other. and the case study approach was adopted, where the case study approach was adopted comprehensively for the subject and the study of the government portal for public services, which considers the experience of e-government in Algeria, was used to collect as much information as possible to study and try to evaluate the structure and results of its work.

The intervention was divided into two sections:

The first topic was the conceptual framework for electronic governance and public services in Algeria.

The second topic is electronic governance and its impact on public services through the "Bawabatak" platform.

2- The conceptual framework for electronic governance and public services in Algeria

Computer systems in public institutions have revolutionized administrative and commercial activities, reducing work and time, and promoting electronic management and public services.

2-1- Electronic public administration in Algeria and its characteristics

Many countries have entered the electronic world through administrative transactions and are trying to provide information and electronic services through new channels characterized by transparency and speed, through what is called electronic administration.

2-1-1- The concept of electronic management

Researchers have increasingly focused on electronic management due to its modernity and importance, leading to various definitions, including the most important ones. Electronic management simplifies administrative processes by reducing paper use, eliminating traditional routines, and utilizing technology and information to achieve new



administrative goals, enabling all administrative bodies to be linked to e-government”. (Jumaa Ismail Al-Ayat, 2015, p. 10)

E-management is also defined as: “E-management involves converting traditional administrative tasks into electronic, efficient, and accurate processes, utilizing information and communications technology to achieve organizational goals by converting paper document cycles into electronic operations.” (Massaadawi, 2013, pp. 509-510)

E-management, a key feature of e-business applications, has revolutionized management principles, enabling continuous entry into new fields, adding advantages, and maintaining competitiveness. (Mahmoud Abdel Fattah, 2012, p. 19) *This is done by relying on the distinctive ability of electronic communication networks to link beneficiaries and sources of information by electronic means to achieve organizational goals such as planning, production, follow-up, and development.* (Imad Hassan Abdel Hafeez & Ahmed Mohamed, 2020, pp. 20-21)

The internet and communication networks are increasingly used in public administration, enhancing efficiency and resource utilization, and enabling remote services. (Jumaa Ismail Al-Ayat, 2015, pp. 18-19). *Its benefits are based on three principles:*

- *Paperless management: relying on e-mail, electronic archiving, and voice messages.*
- *Spatial-independent management: It relies on virtual electronic meetings remotely using phones.* (Ben Masoud Adam, 2019, p. 78)
- *Time-independent management: It works throughout the day, week, month, or year and is not bound by time restrictions.* (Khannouchi, 2013, p. 30)

Electronic management is being promoted in many countries, including Algeria, due to its practical applications. It is characterized by modernity, innovation, and real-time information, strengthening the link between employees and senior management. It also tracks and manages all human and material resources, using email instead of outgoing and incoming records. Centralized decision-making is achieved by managing each department centrally, enhancing monitoring and support. Standardized data collection and data linking reduce constraints on decision-making.

This modernization also aims to achieve transparency and eliminate bureaucracy through international accountability and electronic controls, ensuring community participation and quality communication. (Markan Muhammad Al-Bashir & Bouabdallah Dan, 2015, p. 106)

2-1-2- The legal framework for establishing electronic administration in Algeria

Algeria's public policy focuses on establishing electronic administration through the development of information and communication technologies. The "Electronic Algeria



Project 2009–2013" reflects the global information revolution and the need for modern technology in managing citizen-state relations, reflecting the country's commitment to this new direction. The Algerian legislature has adopted several laws aimed at promoting and expanding the use of information and communications technology in public administration. First, Executive Decree No. 98-275 was issued, regulating the conditions for implementing Internet services. (Algerian official Journal, Executive Decree 98/257, 1998), which ended the state's monopoly on the Internet sector and opened the sector to public and private service providers. Subsequently, Decree 2000-307 was issued regulating the Internet, Internet access, conditions for obtaining Internet licenses, and the cancellation of Internet licenses. (Algerian official Journal, Executive Decree 2000-307, 2000)

With the issuance of Law No. 2000-03, which established the rules for post and telecommunications, (Algerian official Journal, Law 2000-03, 2000) Algeria Telecom was established as an independent body from Algeria Post through the restructuring of the Ministry of Post and Telecommunications, and these were the first building blocks in creating a new digitally oriented legal structure.

Issuing laws to implement e-government and experimenting with electronic transactions requires developing regulations and laws that guarantee users' rights, taking into account comprehensiveness, flexibility in modernization and development, clarity, and the applicability of a system that covers all activities and sectors of the institution. For this purpose, the country will expand the capacity of the international Internet network, raising the capacity of the international network from 1.5 terabytes per second in 2020 to 7.8 terabytes per second. (Khannouchi, 2013, p. 33) Algeria's digital transformation includes Law No. 18-07, which protects natural persons in personal data processing and requires technical experts to participate in legislation development. (Algerian official Journal, Law No. 18-07, p. 00). Law No. 18-05 relating to electronic commerce (Algerian official Journal, Law 18-05, 2018). As well as Law No. 18-04, which includes rules related to postal and electronic communications. (Algerian official Journal, Law No. 18-04, 2018)

2-2- Public services and their reality in Algeria

Electronic administration reduces bureaucracy, improves services, and clarifies the relationship between electronic administration and public services, which is crucial for organizational continuity worldwide.

2-2-1- The concept of public services

This element deals with the various concepts and definitions of public services by defining them in terms as defined by public administration scholars: "Public services are needs necessary for the continuity of human life and well-being, and satisfying them is primarily the responsibility of the state and is limited to a specific period. It is not



something limited to a specific period; rather, it is a process. "Continuous and permanent. It is not something limited to a specific period, but rather a continuous and permanent process, and the state must ensure that its citizens obtain it in the best possible way."

At the level of public administration and public institutions, the desires of individuals are met, their various needs are met, and the administrative bodies are linked to citizens. It is also "a series of activities carried out by a group of employees, and this activity is organized to enable the public administration to carry out the tasks and functions entrusted to it." (Labid , Mouazi , 2021, p. 86)

2-2-1- The reality of public services in Algeria

The future of public wealth distribution and management in Algeria depends on the government's ability to confront the economic and social challenges facing the country. The government must work to diversify the economy, combat corruption, and ensure a fair distribution of wealth. The Algerian government has developed several programs for this, including:

- A- Price Support Program: This program provides basic food items at subsidized prices.*
- B- Social Housing Program: This program is designed to provide suitable housing for people with limited income.*
- C- Employment programs: This program provides job opportunities for young people.*

3- Electronic governance and its impact on public services through the "Bawabatak" platform

This study explores the relationship between e-governance and public services in Algeria through the government's electronic services portal, "Bawabatak." It aims to clarify the quality standards of the portal and its contribution to improving public services, considering both tangible realities and expected challenges. The study aims to clarify the relationship between electronic administration and public services.

3-1- The contribution of government portals to public services in improving electronic services

To reduce the distance between the government and citizens through the electronic portal, the portal was developed so that citizens can obtain answers and services directly through their email.

3-1-1- keeping pace with the digitization of the portal and the legal transformation in Algeria

Algeria's digitization spread rapidly during the COVID-19 pandemic, catalyzing technology adoption and sector growth. A Ministry of Digitization and Statistics was established to ensure digital success. (Hadjar khalfallah , khaled bendjelloul, 2023, p. 778)

The digitization of public services requires not only simplifying procedures but also involving citizens in their interactions with public administration. This can be achieved through electronic communication and improved internet access based on laws and bodies.

First: *Keeping pace with the digitization of administration through public bodies and agencies:*

Even the authorities regulate the use of digital services in general and enable them to keep pace with digital developments in Algeria, hence the need to prepare this platform, "Bawabatak."

1. *National Agency for the Protection of Personal Data (ANDPP): This institution is keen to protect personal data and respect human dignity and the right to privacy when processing personal data. It protects the privacy of individuals in the digital environment and regulates the collection, processing, and transfer of personal data. It should be noted that the provisions of Law No. 18-07 relating to the protection of personal data entered into force on August 10, 2023, under Article 75. According to Article 4 of the law, its provisions apply to all public and private bodies that deal with personal data.*

2. *The National Agency for the Prevention and Combat of Crimes Related to Information and Communications Technology: This agency carries out a dual role: a preventive role about terrorism, subversive activities, and crimes related to national security, and a role about other crimes related to information and communications technologies, in addition to supporting the judicial authorities after the crime occurs. This is stipulated in Law No. 09-04. (Algerian official Journal, Law No. 09/04, 2009)*

National authentication and electronic signature systems aim to achieve international recognition, ensuring digital services' integrity and compatibility with other accredited bodies worldwide.

Second: *Legislatively keeping pace with digital administrative development*

The government has issued many regulatory decisions and executive decrees to improve public services and keep pace with the electronic administration process. Some laws supporting digital management are general.

Law No. 15-04 of 2015 provides a reference document on electronic signatures, defining the system, issuing certificates, and regulating electronic signatures and documents in Algeria to enhance electronic transaction confidence.

Algeria's legislature has enacted Law No. 18-05 to regulate e-commerce, establishing a legal framework for e-government activities and establishing authorities and legal bodies.

3-1-2- Contents of the e-government portal for public services



The government portal for public services was officially launched by the Prime Minister on December 7, 2022, under a purely Algerian electronic address (dz). The portal provides citizens and institutions with information.

Detailed and accurate procedures for various public services. The slogan written on the interface of the platform is “A portal for easy access to public services and government information.” (bawabatic, 2024) under the slogan “Algeria is taking a big step towards developing and modernizing its public administration in line with digital transformation.” The portal currently offers 433 digital public services and digital administrative procedures. (Diafi, Haroush, 2023, p. 78) The platform is available in three languages (Arabic, English, and French) and covers 25 ministries, allowing citizens immediate, around-the-clock access to all digital public services provided by the ministries. (bawabatic, 2024)

The portal is a reliable source of official information about all public services under an advanced security system against piracy and electronic attacks. The government portal for public services is one of the recorded achievements in the field of developing e-government infrastructure, which has enabled the creation of interconnected databases between various sectors for a real digital transformation of Algeria. In its report on e-government 2022, (United Nations , 2022) the specialized agency of the United Nations refers to the development achieved by Algeria, which enabled it to exceed the global average.

3-2- The reality and challenges of electronic administration through the government platform for public services.

Through government portals, e-government aims to improve the provision of public services via the Internet and make them accessible to everyone through the services it provides and the challenges it faces.

3-2-1- The reality of public services through the government portal for public services

Digital public service platforms play an important role in providing services to citizens and facilitating access to public services. We note here the similarity between the digital economy and ICT compared to the administrative sphere. According to the Organisation for Economic Cooperation and Development (OECD) and the National Institute of Information and Communication Technology (INTECH), projects that produce goods and services that support the digitization of the economy include the digitization of the information used or provided (Kichou Ryma, Oueliken Selim, 2021, p. 31). In particular, we note that the State portal for public services (Bawabatak) provides citizens with easy access to a wide range of public services without having to visit an agency or department.

There are a variety of services available through the government portal. As for digital services, there are approximately 342 services included within the scope of 25 ministerial departments, such as: applying to open a current account, applying to participate in competitions, applying for an identity card or passport, paying registration rights, and registering for services of a social nature such as school scholarships, Ramadan pause, other services, and more than 101 administrative procedures.

The following is the distribution of services by category:

Religious services: This section includes 16 services that provide information about various Islamic services, including fatwas, electronic reading portal, Hajj portal, mosque opening portal, Umrah licenses, and others.

Sports and Culture: This section includes 15 services that provide information about sports and culture services, such as requests for elite athletes' certificates, requests for organizing sports events, electronic tickets, and others.

Education: This section includes 37 services and procedures that provide information about higher education services, such as the national portal for notifications of university theses, the university transfer information platform, a portal for new baccalaureate graduates, and the electronic publishing platform for Algerian scientific journals, for example, registration in the baccalaureate, a digital platform for parents, vocational training, etc.

Housing and Urbanism: It includes about 22 platforms, services, and procedures, including housing justice: choosing a justice location, justice appeals, and justice file status. It also includes public housing: a public housing register, etc.

Social Security includes more than 64 procedures and platforms for accessing information and services: in the field of retirement: retirement accounts and tracking the retirement file; in the field of employees: obtaining affiliation certificates; accessing tax returns and employee lists; and in the field of non-salaried workers: requesting a medical declaration for after.

3-2-2- Challenges facing the quality of public services with the progress of digital transformation

Improving public services themselves and adapting them to the requirements of information and communications technology and digitizing public services means creating websites that provide information about administrative services and the required services and adding the models used in their performance, but some obstacles prevent them from reaching the required quality, and sometimes digitization is not a means to simplify providing services in the first place but rather an obstacle to providing public services:

Electronic services depend heavily on a strong Internet network, and the state must increase Internet provision to globally acceptable levels and provide modern delivery

mechanisms such as optical fibers to connect all subscribers to terrestrial Internet services, including public bodies seeking to connect to the Internet. A smooth and advanced legal environment, financial support to improve infrastructure, modern and updated security protection mechanisms, and a strong infrastructure (Évènements scientifiques , 2024).

Implementing the e-government strategy aims to develop and simplify administrative services, link all administrative services and procedures, and ensure administrative ease and flexibility. The new Algeria will be embodied through the e-government strategy in public facilities, which Algeria considers a successful solution in the field of modernization.

A statement by the Ministry of Digitization and Foresight stated: “The main axis of the road map of the Ministry of Digitization and Foresight is: “The main axis of the road map of the Ministry of Digitization and Statistics: preparing a draft law for the digitization that regulates, frames and organizes the field of digitization in Algeria, developing a national strategy for digitization for the period extending until 2034, and adopting a plan Five-year plan to implement the strategy 2024-2029, with the need to develop an infrastructure for a strategic network for digitization in a participatory and consultative manner; and to ensure the organization of study days on strategic topics for digitization with the participation of stakeholders in the sector.” (Minister of Digitalization and Statistics, 2023)

The Minister announced that the Ministry has launched important projects to complete the strategic infrastructure for e-government, including establishing a government data center, a government cloud, and a secure government network infrastructure. (Minister of Digitalization and Statistics, 2023)

After the poor relationship between public administration and citizens, the failure to respond to citizens’ needs, the exploitation of the phenomenon of bureaucracy, and the loss of confidence due to successive failed administrative reforms, the digitization of services provided to citizens was initiated through the introduction of modern technology to ensure the quality of public services. The emergence of new concepts of citizens' rights and freedoms and the emergence of a conscious and educated civil society that seeks to improve the quality of services have made the introduction of modern electronic systems necessary to achieve quality and meet the needs of individuals. (Saad Ghaleb Yassin, 2017, p. 22)

4- Conclusion:

Electronic public administration can be considered an integrated formation of technical, informational, financial, legal, and other interconnected elements. After examining the impact of the “Bawabatak” platform as a model for electronic



administration and as a model for providing public services, it becomes clear to us that Algeria, which has taken a big step towards modernizing public administration and providing smooth and sophisticated services, is on the right path towards development, modernization, and keeping pace with the times, and has proven that it is on the right path and keeping up with the times. Developments taking place in the world:

Launching development projects: establishing a full-time central administration, such as the Ministry of Digitization and Statistics, to formulate a strategy.

Developing a technical information bank: updating the protection system periodically to update and develop it.

Providing adequate financial support: by supporting and continuing financial support for all electronic management requirements.

Establishing twinning between the public and private sectors: The private sector must be utilized to integrate and achieve the strategy.

Providing infrastructure: Implementing electronic management requires changes to the structures in line with its process.

To achieve faster, more efficient, and effective operation within the time frame of the gradual development phase according to a three-fold framework:

- *Restructuring the service performance platform with unified algorithms for all administrative departments.*
- *Activating biometric national ID cards and providing a database to improve the use of digital platforms.*
- *Focus on developing infrastructure in line with current developments and the quality of services provided.*

Training users to control the digital field: preparing professional and technical cadres regarding the use of informatics.

Information security and protection mean protecting the information controlled by the platform electronically and preventing easy access to it.

Aligning legal transformation with digital transformation: This is a major challenge facing e-government and must be prepared for.

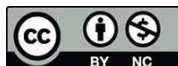
tightening penalties for information security, with tougher penalties for hacking and penetrating public administration networks.

Establishing security teams in the public administration to monitor security and process data before it is hacked to ensure its privacy.

We also believe that this study has opened another field of research due to the need to continue this research, which has a legal and applied aspect. After the applied statistical study of the “Gateway” platform, to reach other areas of knowledge that contribute to the development of scientific research and the development of the platform based on future research.

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Citation: Hamidani. N, Hamidani. A. **Modernizing public service in Algeria within the framework of digital transformation**. *Social Empowerment Journal*. 2024; 6(3): pp. 17-28. [DOI 10.34118/sej.v6i3.3969](https://doi.org/10.34118/sej.v6i3.3969)

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