



LEGITIMACY OF ELECTRONIC ADMINISTRATIVE DECISIONS IN THE CONTEXT OF DIGITAL TRANSFORMATION

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Abstract

Electronic administrative decisions have become an essential tool in modern administration, combining legal legitimacy with digital efficiency. They are characterized by fast notification, archival documentation, and enhanced transparency and accountability, while preserving the traditional elements of administrative decisions: authority, public interest, legal form, and timing, in addition to the digital dimension represented by security, digital signatures, and electronic documentation.

Despite these advantages, electronic decisions face contemporary challenges, including lack of specialized legislation, cyber security risks, insufficient digital training for staff, and the need to educate citizens. To ensure the legitimacy and effectiveness of electronic decisions, it is necessary to update laws to keep pace with digital transformation, adopt secure and reliable systems, train administrative personnel, and raise awareness among beneficiaries on how to interact with these decisions. Consequently, electronic administrative decisions become an effective and legitimate means of organizing public administration in the digital era.

Keywords: Electronique administrative décision, digital transformation, legal legitimacy, électronique documentation, digital administration.

Introduction

The digital revolution has led to a profound transformation in public administration, moving from traditional paper-based methods to a digital environment reliant on information systems and artificial intelligence. This transformation has made electronic administrative decisions a central element of modern administration, raising a key legal issue regarding compliance with the principle of legality, which is fundamental in administrative law.

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While digitalization offers advantages such as speed, efficiency, and reduced bureaucracy, it also introduces new challenges related to ensuring transparency, protecting rights and freedoms, and subjecting automated or intelligent decisions to judicial oversight.

Research Problem:

To what extent can the requirements of digital transformation be reconciled with the principle of legality in electronic administrative decisions?

To address this question, we employed a descriptive approach to clarify the concept of electronic administrative decisions and their elements, followed by an analytical approach to assess the impact of smart decisions on the principle of legality.

1- Conceptual and Legal Framework of the Electronic Administrative Decision

The electronic administrative decision represents a contemporary mechanism for the effective management of public affairs, combining legal legitimacy with digital technology. Its operational effectiveness and security depend on the existence of an integrated legislative and technological framework. Accordingly, this section examines the concept and evolution of the electronic administrative decision, followed by an analysis of the legal basis for its validity.

1.1. The Concept and Evolution of the Electronic Administrative Decision

Before defining the electronic administrative decision, it is essential to establish the meaning of the traditional administrative decision. The latter is defined as a unilateral legal act issued by a competent administrative authority, which produces legal effects by creating a new legal position or by modifying or revoking an existing one (Aouabdi, 2003, p. 10). It thus becomes evident that the traditional administrative decision constitutes, in essence, an expression of the will of a single party—namely, the administrative authority—issued with the intent of producing legal effects, and formalized through conventional procedures.

By contrast, the electronic administrative decision is defined as an electronic document embodying the binding and unilateral will of the administration, adopted with the purpose of producing a specific legal effect (Shbeir, 2016, p. 219).



The electronic administrative decision may take the form of an individual decision addressed to specific persons in their personal capacity, or a regulatory decision addressed to individuals in their general capacity, commonly referred to as an electronic regulation.

Accordingly, the electronic administrative decision constitutes the administration's expression of its binding will through the use of digital means in order to produce a specific legal effect. It is regarded as an extension of the traditional administrative decision; however, it is distinguished by qualitative features, including its intangible nature, its potential for automation, and, in certain instances, its reliance on algorithmic processes (Rivero & Waline, 2004, p. 44).

This development is not limited to formal aspects; rather, it extends to a redefinition of the relationship between the administration and the citizen. The administration thus evolves from a traditional authority into a digital actor relying on data processing in decision-making, with significant implications for the guarantees of legality and administrative lawfulness (Chapus, 2001, p. 49).

1.2 . Legal Basis for the Lawfulness of the Electronic Administrative Decision

The electronic administrative decision is subject to the principle of legality, which requires the administration to comply with legal rules at all hierarchical levels. Legal recognition of the digital medium, however, goes beyond mere acknowledgment of its existence, as the success of this approach depends on the capacity of traditional legal norms to accommodate digital transformations.

Accordingly, modern legislation has recognized the evidentiary value of digital instruments, including electronic signatures and digital documents, while ensuring data integrity and verifying the source of the decision in order to guarantee its legality and validity (Nations, 2022, p. 60).

In this context, reference may be made, for example, to the Electronic Signatures in Global and National Commerce Act (E-SIGN Act), enacted in 2000 by the United States Congress, which regulates the use of electronic signatures and electronic records in commercial transactions. This Act grants electronic signatures the same legal validity as handwritten signatures in contracts and transactions within the United States.

Similarly, the Saudi Electronic Transactions Law, issued in 2007 as a legal framework governing electronic transactions, signatures, and records in the Kingdom of Saudi Arabia, establishes the legal validity of digital records and promotes secure online dealings in both commercial and governmental services.

Likewise, Egyptian Law No. 15 of 2004 on Electronic Signatures regulates the use of digital technologies in civil and commercial transactions in Egypt. It aims to confer legal recognition upon electronic documents and signatures and to enhance trust in online transactions between individuals and both public and private entities. Accordingly, this law has contributed to paving the way for the development of e-government applications, digital banking services, and electronic commerce.

With the expansion of digital transformation, it is regarded as a cornerstone in the development of subsequent technological legislation, including data protection and cybercrime laws (Egyptian Law, 2004).

The eIDAS Regulation (Regulation (EU) No. 910/2014) is a legal instrument of the European Union that establishes a common framework for electronic identification, authentication, and trust services. It aims to facilitate secure cross-border digital transactions within the European Union by ensuring interoperability and mutual recognition of electronic signatures and electronic identities.

In the Algerian context, the legislator has likewise recognized electronic signatures and granted them legal validity through Law No. 15-04 on electronic signature and certification (Government G. S., 2015). This, in turn, enhances trust and security in digital transactions, promotes the development of electronic commerce, and supports the digitalization of public administration by establishing a legal and technical framework equivalent to handwritten signatures.

Likewise, Law No. 18-05 on electronic commerce provides the regulatory framework governing electronic commercial activities, ensuring the legal recognition and organization of online transactions within the digital environment (Government G. S., 2018). It recognizes the validity of electronic transactions, thereby paving the way for the acknowledgment of electronic administrative decisions. Law No. 18-07 on the protection of natural persons in the processing of personal



(Government G. S., 2018) data establishes a legal framework for data protection, which constitutes an essential prerequisite for the lawfulness of electronic administrative decisions.

It is noteworthy that the electronic administrative decision has become a legal reality imposed by digital transformations. Modern legislation has sought to confer legality upon it through the recognition and regulation of electronic means. However, the effectiveness of this legal framework remains dependent on the extent to which traditional principles of legality are respected, as well as on the development of legal protection mechanisms, particularly in the fields of information security and personal data protection.

2. Constituent Elements of the Lawfulness of the Electronic Administrative Decision

For an electronic administrative decision to be considered lawful and valid, a set of essential elements must be satisfied to ensure its integrity and effectiveness. These elements largely mirror those governing the traditional administrative decision, while incorporating the digital dimension, including electronic documentation, digital signatures, and the assurance of security and reliability.

2.1. The Requirement of Competence and Form in the Digital Environment

The requirement of competence refers to the legally established authority vested in an administrative body, or in officials acting on its behalf, to issue specific decisions within a defined subject matter and within a determined temporal or territorial scope (Baali, 2005, p. 49). For an electronic administrative decision to be valid, its essential elements must be satisfied. These include the personal element, whereby the decision must be issued by the competent administrative authority or by an official legally designated for that purpose, except in cases expressly provided for by law, such as delegation, substitution, or agency.

The material element requires that the scope of matters in which such a decision may be issued be clearly defined. In other words, the legislature determines and allocates competences among administrative bodies in a manner that prevents any *ultra vires* exercise of authority; otherwise, the decision would be vitiated by lack of competence.

As for the temporal element, it refers to the possibility of adopting the decision within a specified time frame, defined by the period during which the authority or official is legally empowered to exercise such competence.

Finally, the territorial element concerns the geographical scope within which administrative bodies are authorized to exercise their powers (Messaoudi, 2015, pp. 153-154).

On this basis, the electronic administrative decision must be issued by a legally competent authority. This requirement raises particular challenges in the context of automated decisions, where the responsibility of the programmer may intersect with that of the administration, giving rise to what is described as the “fragmentation of administrative responsibility,” which may, in turn, weaken the guarantees of legality (Labed, 2010, p. 28).

As regards form, the digital document must ensure data integrity and be capable of providing guarantees equivalent to those afforded by traditional documents, particularly with respect to evidentiary value (OECD, 2019, pp. 36-40-45).

2.2. The Elements of Cause, Subject Matter, and Purpose

The constituent elements of the electronic administrative decision remain, in principle, the same as those recognized in traditional administrative law; however, they encounter new challenges within the digital environment (Pasquale, 2015, p. 57):

2.2.1. Cause (Legal and Factual Grounds)

Cause refers to the material or legal facts, independent of the intention or will of the competent administrative authority, that prompt it to issue a specific administrative decision. It should be noted, however, that the extraction and assessment of such facts through algorithmic processes may be affected by technical biases or errors.

2.2.2. Subject Matter

The subject matter of the decision must be both feasible and lawful, while taking into account the technical risks associated with digital data.

2.2.3. Purpose

The objective of serving the public interest may be compromised when decisions rely entirely on automated systems without adequate



human oversight, potentially leading to unfair or discriminatory outcomes.

3. Contemporary Challenges to the Lawfulness of the Electronic Administrative Decision

Despite the advantages offered by electronic administrative decisions—particularly in terms of speed, efficiency, and enhanced transparency—their lawfulness remains subject to complex contemporary challenges affecting all their constituent elements. From a legal perspective, a key issue lies in the inadequacy of traditional legislation to fully accommodate digital transformation. In many jurisdictions, the existing legal framework remains insufficient to regulate the evidentiary value of electronic signatures and digital documents. Furthermore, difficulties related to proof—especially in attributing a decision to the competent authority within a virtual environment—may adversely affect the requirements of competence and form (Baali, Administrative law, 2010, pp. 215-218). Likewise, the protection of personal data raises a fundamental challenge in the context of the expanding use of databases, which necessitates striking a balance between the requirements of e-administration and the safeguarding of individual rights and freedoms (Kana'an, 2013, pp. 134-137). From a technical perspective, security breaches and system malfunctions may compromise the integrity and reliability of the administrative decision, which in turn affects its underlying cause and subject matter, particularly where the decision results from automated data processing without sufficient human oversight (Aouabdi, Theory of administrative decisions, 2009, pp. 302-305).

At the administrative level, digital transformation requires the reskilling of human resources and the adaptation of traditional procedures to the electronic environment, particularly with regard to electronic notification and compliance with formal requirements, in addition to issues of coordination among various administrative bodies (Al-Tamaw, 2007, pp. 445-448). Cultural challenges also emerge, notably resistance to change and a lack of trust in digital tools, alongside the digital divide, which may hinder certain groups from accessing electronic services.

Future challenges likewise arise from the need to align with international standards in the fields of data protection and cyber

security, as well as issues of jurisdiction in cross-border electronic disputes. To overcome these challenges, comprehensive legislative reforms are required, together with the strengthening of digital infrastructure, the development of administrative competencies, and the promotion of digital literacy among citizens, thereby ensuring the consolidation of the legality of the electronic administrative decision within the framework of the rule of law (Al-Sanhuri, 2000, pp. 56-60).

3.1. Automated Decisions and Artificial Intelligence

The reliance on artificial intelligence in decision-making raises the issue of “algorithmic transparency,” that is, the extent to which the underlying grounds of a decision can be understood. This directly affects the ability to challenge such decisions and poses a significant challenge to judicial review (Pasquale, 2015, p. 60).

3.2. Protection of Digital Rights and Freedoms

Despite its advantages in enhancing the efficiency of public services and expediting administrative procedures, the electronic administrative decision may constitute a potential source of interference with digital rights and freedoms, particularly in light of the extensive collection and processing of personal data through information systems. Excessive reliance on digital technologies may lead to violations of the right to privacy if data processing operations are not accompanied by adequate legal safeguards, especially with regard to the principles of necessity and proportionality, as well as the requirement to obtain explicit consent or to rely on a clear legal basis for data processing (Nations, 2022, pp. 63-64).

Algorithm-based decisions also raise issues relating to transparency and explainability, as individuals may encounter difficulties in understanding the grounds upon which a decision is based or in challenging it, particularly in the absence of effective human oversight. This may, in turn, affect the guarantees of a fair trial and the right of defense (Nations, 2022, pp. 65-66).

On the other hand, the digital divide emerges as one of the most serious challenges threatening the principle of equality before public services. Unequal access to digital tools and technological infrastructure may lead to the exclusion of certain groups, particularly in remote areas or among low-income populations and individuals



with limited educational attainment, thereby undermining the principle of universality of public service.

Moreover, insufficient digital literacy among some citizens may hinder their ability to effectively exercise their administrative rights, resulting in the erosion of the practical effectiveness of legal guarantees (OECD, Digital Government Review, 2020, pp. 41-42).

Accordingly, ensuring the protection of digital rights and freedoms in the context of electronic administrative decisions requires the establishment of a comprehensive legal framework for the protection of personal data, the promotion of transparency and accountability in the use of intelligent systems, and the guarantee of equitable access to digital services, while maintaining alternative traditional channels. Such measures are necessary to strike a balance between administrative efficiency and the respect of fundamental rights.

3.3. Judicial Review

Judicial review of electronic administrative decisions faces unprecedented challenges in the context of digital transformation, as traditional mechanisms are no longer sufficient to keep pace with the technical nature of administrative disputes. Determining the lawfulness of such decisions requires a precise understanding of the technical aspects related to information systems and algorithms. This may pose significant difficulties for the administrative judge, who is often confronted with complex digital facts that go beyond the scope of traditional legal training (Chapus, 2001, pp. 52-54). Moreover, the issue of electronic evidence emerges as one of the most significant obstacles, as digital documents raise questions regarding their legal evidentiary value, their integrity against manipulation, and the possibility of attributing them to the competent administrative authority. This is particularly critical in the absence of a clear and unified legislative framework governing digital means of proof (OECD, <https://www.oecd.org>, 2019, pp. 45-47). It becomes even more complex with the use of automated decision-making systems, as this raises questions regarding the extent to which algorithms can be subjected to judicial review, and the judge's ability to examine the criteria underlying decision-making and assess their compliance with the principle of legality. In addition, the cross-border nature of certain electronic transactions may give rise to issues relating to jurisdiction

and the enforcement of judgments, thereby necessitating the development of new legal rules adapted to the digital environment. Accordingly, it has become necessary to modernize judicial review mechanisms by training judges in digital matters, relying on technical expertise, and adopting flexible rules of electronic evidence, in order to ensure the effectiveness of judicial oversight and the continued protection of the principle of legality within the framework of electronic administration.

Conclusion

The electronic administrative decision represents an inevitable stage in the modernization of public administration. However, it requires a reconsideration of traditional administrative law concepts, particularly the principle of legality.

Digital legality is no longer limited to mere compliance with legal rules; it now encompasses the assurance of algorithmic transparency, the protection of data, and the effectiveness of judicial review. Consequently, achieving a balance between technical efficiency and legal safeguards constitutes the main challenge facing administrative law in the digital era, and it requires continuous legislative and judicial intervention.

Findings:

- Enhancing administrative efficiency: Electronic decisions provide faster decision-making and notification processes, thereby reducing bureaucracy and increasing administrative efficiency.
- Improving transparency and accountability: The possibility of maintaining a digital archive for each decision facilitates legal oversight and strengthens citizens' trust in public administration.
- Ongoing legal and technical challenges: Certain traditional legal frameworks remain misaligned with digital realities, with persistent risks related to cybersecurity and data protection.
- Need for capacity building and digital awareness: The lack of adequate training for both administrative staff and citizens in digital systems may limit the effectiveness of electronic decision-making.



Recommendations:

- Modernizing legal frameworks: Enacting updated legislation covering all aspects of electronic decisions, including digital signatures, evidence, and data protection.
- Adopting secure digital systems: Using encryption and electronic authentication technologies to ensure the integrity of decisions and prevent manipulation.
- Training administrative personnel: Developing staff competencies in digital transformation and the use of electronic platforms.
- Raising public awareness: Promoting digital literacy regarding how to receive and interact with electronic administrative decisions.
- Strengthening inter-administrative integration: Developing integrated digital systems to facilitate data exchange and ensure the harmonization of procedures across different administrative bodies.

Indernotes:

1. Al-Sanhuri, A. A. (2000). Al-Wasit fi sharh al-qanun al-madani The intermediary in the explanation of civil law . Beirut, Lebanon: Lebanon: Dar Ihya Al-Turath Al-Arabi.
2. Al-Tamaw. (2007). Theory of administrative decisionst. Cairo, Egypt: Dar Al-Fikr Al-Arabi.
3. Aouabdi, A. (2009). Theory of administrative decisions. Algeria: Office of University Publications.
4. Aouabdi, A. (2003). Theory of administrative decisions between public administration and administrative law. Algeria: Houma Publishing.
5. Baali, M. S. (2010). Administrative law. Annaba, Algeria: Dar Al Ouloum for Publishing and Distribution.
6. Baali, M. S. (2005). Administrative decision. Algeria: Dar Al Ouloum for Publishing and Distribution.
7. Chapus. (2001). Droit administratif généra. Paris, France: Montchrestien.
8. Chapus, R. (2001). . General administrative law (15 ed.). Paris, France: Montchrestien.
9. Egyptian Law, N. (2004, April 21). the Regulation of Electronic Signatures and the Establishment of the Information Technology Industry Development Authority. EgyptT, EgyptT.
10. Government, G. S. (2015). Journal, Official. (6) . ALGRIA.
11. Government, G. S. (2018, May 10). Official Journal. (28) . Algeria.

12. Government, G. S. (2018, JUIN 10). Official Journal of the Algerian Republic. (34) . Algerian.
13. Kana'an, N. (2013). Electronic administrative law. Amman, Jordan: Dar Al-Thaqafa for Publishing and Distribution.
14. Labed, N. (2010). Administrative law. Dahleb, Algiers.
15. Messaoudi, H. (2015). The elements of the electronic administrative decision. Journal of Law, Society and Authority , 153-154.
16. Nations, U. (2022). United Nations E-Government Survey. United Nations, The Future of Digital Government, New York. USA.
17. OECD. (2020). Digital Government Review. PARIS, France: OECD Publishing.
18. OECD. (2019). Digital government review. PARIS: OECD Publishing.
19. Pasquale, F. (2015). The black box society: The secret algorithms that control money and information . Cambridge, MA: Harvard University Press.
20. Rivero, J., & Waline, J. (2004). Administrative law (21 ed.). (Dalloz, Ed.) Paris. France.
21. Shbeir, M. S. (2016). The electronic enforceability of administrative decisions: A comparative applied study. 219. Faculty of Law and Political Science, Ain Shams University, Cairo, Egypt, Egypt.

References

I. Books and Academic Treatises

- Al-Sanhuri, A. A. (2000). *Al-Wasit fi sharh al-qanun al-madani: The intermediary in the explanation of civil law*. Beirut, Lebanon: Dar Ihya Al-Turath Al-Arabi.
- Al-Tamaw. (2007). *Theory of administrative decisions*. Cairo, Egypt: Dar Al-Fikr Al-Arabi.
- Aouabdi, A. (2009). *Theory of administrative decisions*. Algeria: Office of University Publications.
- Aouabdi, A. (2003). *Theory of administrative decisions between public administration and administrative law*. Algeria: Houma Publishing.
- Baali, M. S. (2010). *Administrative law*. Annaba, Algeria: Dar Al Ouloum for Publishing and Distribution.
- Baali, M. S. (2005). *Administrative decision*. Algeria: Dar Al Ouloum for Publishing and Distribution.
- Chapus, R. (2001). *Droit administratif général* (15th ed.). Paris, France: Montchrestien.
- Kana'an, N. (2013). *Electronic administrative law*. Amman, Jordan: Dar Al-Thaqafa for Publishing and Distribution.
- Labed, N. (2010). *Administrative law*. Dahleb, Algiers.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Cambridge, MA: Harvard University Press.
- Rivero, J., & Waline, J. (2004). *Administrative law* (21st ed.). Paris, France: Dalloz.



II. Official Journals, Laws, and Legislation

- Egyptian Law No. 15 (2004, April 21). *The Regulation of Electronic Signatures and the Establishment of the Information Technology Industry Development Authority*. Egypt.
- Government General Secretariat. (2015). *Official Journal*, (6). Algeria.
- Government General Secretariat. (2018, May 10). *Official Journal*, (28). Algeria.
- Government General Secretariat. (2018, June 10). *Official Journal of the Algerian Republic*, (34). Algeria.

III. Reports, Journals, and Theses

- Messaoudi, H. (2015). The elements of the electronic administrative decision. *Journal of Law, Society and Authority*, 153-154.
- Nations, U. (2022). *United Nations E-Government Survey: The Future of Digital Government*. New York, USA: United Nations.
- OECD. (2020). *Digital Government Review of Argentina*. Paris, France: OECD Publishing.
- OECD. (2019). *Digital Government Review*. Paris, France: OECD Publishing.
- Shbeir, M. S. (2016). *The electronic enforceability of administrative decisions: A comparative applied study*. Faculty of Law and Political Science, Ain Shams University, Cairo, Egypt.