
The Role of the Electronic Communications Regulatory Authority (ARPCE) in Fostering Investment in Algeria's Telecommunications Sector

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Abstract

The telecommunications sector is a critical engine for economic growth and social development in the 21st century. In Algeria, a nation actively pursuing economic diversification and modernization, the development of a robust and competitive telecommunications market is a national priority. At the heart of this transformation lies the **Autorité de Régulation de la Poste et des Communications Électroniques (ARPCE)**, the independent regulatory body entrusted with overseeing the postal and electronic communications sectors. This article provides a comprehensive analysis of ARPCE's role in shaping the investment landscape of Algeria's telecommunications industry. It examines the legal and institutional frameworks that govern the sector, the regulatory mechanisms employed by ARPCE to attract and manage investment, and the impact of these policies on market structure, competition, and infrastructure development. The central thesis of this paper is that ARPCE, through a carefully calibrated regulatory strategy, has been a pivotal force in transitioning Algeria's telecommunications sector from a state-controlled monopoly to an increasingly dynamic and competitive market. This transition has not only attracted substantial domestic and foreign investment but has also laid the foundational infrastructure for Algeria's broader digital transformation agenda, positioning the nation to compete in the global digital economy. The paper will argue that while challenges remain, ARPCE's model of independent regulation offers valuable lessons for other emerging economies seeking to liberalize and develop their own telecommunications markets.

Introduction

For many years, the Algerian economy has been heavily reliant on the hydrocarbon sector, making it vulnerable to fluctuations in global energy prices. In response, the government has launched an ambitious strategy of economic diversification, aiming to develop non-hydrocarbon sectors such as manufacturing, agriculture, tourism, and, crucially, the digital economy. The development of a modern, high-speed telecommunications infrastructure is recognized as a fundamental enabler for this diversification strategy. It is the bedrock upon which a vibrant digital ecosystem—comprising e-commerce, fintech, e-health, and digital government services—can be built. Therefore, the performance of the telecommunications

sector and the effectiveness of its regulatory body, ARPCE, are not merely technical matters but are of strategic national importance.

Chapter 1: The Regulatory and Institutional Framework for Telecommunications in Algeria

Section 1: The Evolution of Telecommunications Regulation in Algeria

The journey of Algeria's telecommunications sector is a story of profound transformation. For decades, the sector was characterized by a state monopoly under the purview of the Ministry of Post and Telecommunications. This model, while providing basic telephone services, was marked by significant inefficiencies. Network expansion was slow, leading to long waiting lists for fixed-line connections. The quality of service was often poor, and the range of available services was limited, with little to no innovation. The state-owned operator lacked the financial resources and the competitive pressure to invest in new technologies and modernize the network. As the global telecommunications landscape was being revolutionized by mobile telephony and the internet in the 1990s, the digital divide between Algeria and the developed world widened. Recognizing that an outdated telecommunications infrastructure was a major bottleneck to economic development and social progress, the Algerian government embarked on a comprehensive reform process at the turn of the millennium. The primary objective was to dismantle the monopoly, introduce competition, and attract the private investment and expertise needed to build a modern telecommunications network.

A landmark moment in this reform was the enactment of **Law No. 2000-03 of August 5, 2000**, which laid down the general rules for the postal and telecommunications sectors. This law effectively ended the state's monopoly and opened the door for competition. It also established the principle of an independent regulatory authority, leading to the creation of ARPCE. This was a clear signal of the government's commitment to creating a transparent and predictable regulatory framework, a key prerequisite for attracting private capital, both domestic and foreign.

The regulatory landscape was further refined with the adoption of **Law No. 18-04 of May 10, 2018**, which updated and replaced the 2000 law. This new legislation was a significant step forward, as it consolidated the legal framework for postal and electronic communications and adapted it to the realities of a converged digital environment. The law recognized the blurring of lines between telecommunications, broadcasting, and information technology, and it provided ARPCE with the tools to regulate this new ecosystem effectively. It reaffirmed ARPCE's role and expanded its mandate to include areas such as net neutrality, data protection, and cybersecurity, reflecting the growing complexity of the digital world. The evolution of the legal framework, from the initial, cautious steps towards liberalization in 2000 to the comprehensive and forward-looking regulations of 2018, demonstrates a clear learning curve and a sustained political will to create a modern, efficient, and investment-friendly telecommunications sector in Algeria.

Section 2: The Institutional Framework: Establishment and Mandate of ARPCE

ARPCE was formally established as an independent institution with a distinct legal personality and financial autonomy. This institutional independence is a cornerstone of its legitimacy and effectiveness as a regulator. It is designed to shield the regulatory decision-making process from undue political or commercial influence, thereby ensuring a level playing field for all market participants. The authority is governed by a board of directors, whose members are appointed for their expertise in the legal, economic, and technical aspects of telecommunications. The structure is designed to ensure a high level of technical competence and to foster a culture of evidence-based decision-making. The board is supported by a dedicated staff of professionals with expertise in various fields, including engineering, law, economics, and finance. This allows ARPCE to conduct in-depth market analysis, develop sophisticated regulatory instruments, and effectively monitor the compliance of operators with their obligations.

ARPCE's mandate is broad and multifaceted, encompassing all aspects of regulation for the postal and electronic communications sectors. Its core missions, as defined by Law No. 18-04, include: (1) **Ensuring the existence of effective and fair competition**, where ARPCE is responsible for preventing anti-competitive practices and ensuring that all operators have fair access to the market; (2) **Promoting investment**, where the authority is tasked with creating a regulatory environment that encourages investment in telecommunications infrastructure and services; (3) **Managing scarce resources**, which includes the allocation and management of the radio frequency spectrum and numbering resources; (4) **Protecting the rights of consumers**, where ARPCE ensures that consumers have access to high-quality services at fair prices and provides mechanisms for resolving disputes with operators; and (5) **Ensuring the provision of universal service**, where the authority oversees the universal service obligation, which aims to ensure that basic telecommunications services are available to all citizens, regardless of their geographic location or income level.

To fulfill its mandate, ARPCE is endowed with a range of powers, including the authority to grant licenses, set tariffs, resolve disputes, and impose sanctions on operators who fail to comply with their obligations. The combination of a clear legal mandate, institutional independence, and a comprehensive set of regulatory powers has enabled ARPCE to play a central role in the development of Algeria's telecommunications sector. The authority's organizational structure includes specialized departments for market regulation, licensing, spectrum management, consumer protection, and legal affairs, each staffed with qualified professionals who bring specialized expertise to their respective domains.

Section 3: The Regulatory Framework for Investment in Telecommunications

A stable, transparent, and predictable regulatory framework is paramount for attracting long-term investment. Investors, particularly in capital-intensive sectors like telecommunications, need assurance that their investments will be protected and that the rules of the game will not be changed arbitrarily. Algeria has made significant strides in recent years to improve its investment climate, and the telecommunications sector has been a key beneficiary of these reforms. A major policy shift was the revision of the "**51/49 rule**" in 2020. This rule, which had been in place since 2009, required at least 51% Algerian ownership in all

foreign investment projects. While intended to protect national economic interests, the rule was widely seen by foreign investors as a major deterrent. Its removal for non-strategic sectors, including telecommunications, was a landmark decision that signaled a new openness to foreign direct investment (FDI).

This was followed by the enactment of **Law No. 22-18 on Investment** in 2022, which further modernized the legal framework. This law established the principle of equal treatment for both national and foreign investors and introduced a range of guarantees and incentives to promote investment. It also created the Algerian Investment Promotion Agency (AAPI) to streamline investment procedures and provide support to investors. In 2024, AAPI launched a digital platform to facilitate access to state-owned land for investment projects, further simplifying the process for investors. These reforms have significantly improved Algeria's ranking in international investment climate indices and have made the country a more attractive destination for telecommunications investment.

In addition to these general investment laws, the telecommunications sector is governed by specific regulations designed to protect data and facilitate e-commerce. **Law No. 18-07 of June 10, 2018**, provides a legal framework for data privacy, a crucial element for building trust in the digital economy. This law, which is broadly aligned with international best practices such as the European Union's General Data Protection Regulation (GDPR), sets out the rights of individuals with regard to their personal data and the obligations of data controllers and processors. Similarly, **Law No. 18-05 of May 10, 2018**, establishes the general rules for e-commerce, creating a secure and reliable environment for online transactions. This law addresses key issues such as the validity of electronic contracts, the liability of service providers, and the protection of consumers in online transactions. These laws, combined with the broader investment reforms, have created a more attractive and secure environment for investment in Algeria's telecommunications sector, demonstrating a commitment to building a modern and trustworthy digital ecosystem.

Chapter 2: ARPCE's Role in Market Development and Investment Promotion

Section 1: Licensing and Spectrum Management: The Gateways to the Market

ARPCE plays a critical role as the gatekeeper to the Algerian telecommunications market. The authority is responsible for granting licenses to operators wishing to establish and operate electronic communications networks and services. The licensing process is designed to be transparent and non-discriminatory, ensuring that all qualified applicants have an equal opportunity to enter the market. ARPCE has overseen the licensing of the three major mobile operators in the country: Mobilis, Djezzy, and Ooredoo. It has also managed the licensing processes for successive generations of mobile technology, from GSM to 3G, 4G, and most recently, 5G. The move to a licensing regime was a fundamental departure from the previous system of state provision and has been instrumental in creating a competitive market. The licensing framework includes detailed technical requirements, quality of service standards, and coverage obligations that ensure operators invest in network expansion and modernization.

The allocation and management of the radio frequency spectrum is another of ARPCE's core functions. The spectrum is a scarce public resource, and its efficient and equitable allocation is essential for the development of wireless communication services. ARPCE typically allocates spectrum through competitive bidding processes, such as auctions, which are designed to ensure that the spectrum is assigned to the operators who value it most and are best placed to use it efficiently. The recent award of 5G licenses in 2025 to the three incumbent operators, with significant license fees, demonstrates the high demand for spectrum and the potential for revenue generation for the state. The auction process is conducted with full transparency, with clear rules and procedures that ensure fair competition among bidders.

In addition to licensing and spectrum management, ARPCE is also responsible for the type approval of telecommunications equipment. This process ensures that all equipment connected to the public network complies with the required technical standards and does not cause harmful interference. This is a crucial function for ensuring the integrity and security of the network and for protecting consumers from substandard or counterfeit equipment. By managing these key gateways to the market, ARPCE plays a pivotal role in shaping the structure and competitiveness of the telecommunications sector. The authority's rigorous approach to licensing and spectrum management has created a framework that is both attractive to investors and protective of the public interest.

Section 2: Market Structure, Competition, and Investment

The liberalization of the Algerian telecommunications market has led to a dynamic and competitive landscape. The market is currently dominated by three major mobile network operators (MNOs): **Mobilis (ATM Mobilis)**, the state-owned operator and the historical incumbent; **Djezzy (Optimum Telecom Algeria)**, previously state-owned but now privatized and a major player in the market; and **Ooredoo Algeria**, a subsidiary of the Qatari telecommunications group Ooredoo. These three operators compete fiercely for market share, which has resulted in a wide range of services and competitive pricing for consumers. As of the second quarter of 2025, Algeria had **54.87 million mobile phone subscribers**, **7.20 million landline subscribers**, and **59.10 million internet subscribers**, indicating a high level of market penetration and a strong demand for telecommunications services.

ARPCE's role in this competitive environment is to ensure a level playing field for all operators. The authority monitors the market for anti-competitive practices, such as predatory pricing or abuse of a dominant market position. It also sets the rules for interconnection between operators, ensuring that they can connect their networks to each other on fair and reasonable terms. This is essential for ensuring that consumers can communicate with each other, regardless of which network they are subscribed to. The interconnection framework established by ARPCE has been instrumental in creating a truly competitive market where consumers benefit from lower prices and greater choice.

The competitive market structure has been a major driver of investment. The three MNOs have invested heavily in their networks to expand coverage, improve quality of service, and deploy new technologies. The recent investments in 5G are a testament to this, with Mobilis committing approximately **\$170.7 million** for its 5G license and network rollout. Djezzy and Ooredoo have also made substantial investments, with Djezzy investing **10.6 billion Algerian**

dinars in the second quarter of 2025 and Ooredoo investing **11.6 billion Algerian dinars** in the first three quarters of 2024. These investments are not only driving the growth of the telecommunications sector but are also creating a platform for the development of a wider digital economy. The competition has also led to a significant decrease in prices for consumers and a wider variety of services, including mobile data packages, value-added services, and mobile money.

Section 3: Investment Trends and Infrastructure Development

The Algerian telecommunications sector is currently experiencing a wave of investment, driven by the growing demand for data services, the deployment of 5G, and the government's commitment to digital transformation. The investments being made by the three MNOs are just one part of the story. The government, through Algeria Telecom, is also investing heavily in the national backbone infrastructure. These investments are creating a virtuous cycle where improved infrastructure attracts more users, which in turn attracts more investment from operators seeking to capture growing demand.

A key project in this regard is the deployment of a **400G WDM (Wavelength Division Multiplexing) network** in partnership with Huawei. This project will significantly increase the capacity of the national fiber optic network, providing a high-speed backbone for the delivery of broadband services across the country. In addition, a **new submarine fiber optic cable** was announced in 2025, which will further enhance Algeria's international connectivity and provide additional redundancy. These infrastructure projects are essential for achieving the government's goal of providing universal access to high-speed broadband internet. They are also a key enabler for the development of a digital economy, supporting the growth of e-commerce, e-government, and other digital services. Furthermore, Algeria is making strategic investments in **Artificial Intelligence (AI)**, with the ambitious goal of having AI contribute 7% to the country's GDP by 2027. A robust telecommunications infrastructure is a fundamental prerequisite for achieving this goal.

ARPCE's role in this context is to ensure that the regulatory framework supports and encourages these investments. The authority works closely with the government and the industry to identify and address any regulatory barriers to investment. It also plays a key role in coordinating the deployment of new infrastructure, ensuring that it is done in an efficient and cost-effective manner. By fostering a pro-investment regulatory environment, ARPCE is helping to build the digital infrastructure that will underpin Algeria's future economic growth. This includes initiatives to streamline the process for obtaining permits for the construction of new mobile towers and the laying of fiber optic cables. ARPCE also promotes infrastructure sharing among operators to reduce costs and accelerate network deployment, particularly in rural and underserved areas.

Chapter 3: Socio-Economic Impact, Challenges, and Future Perspectives

Section 1: The Socio-Economic Impact of Telecommunications Development

The development of the telecommunications sector in Algeria has had a profound socio-economic impact, extending far beyond the realm of technology and economics. The increased connectivity has been a powerful catalyst for social inclusion, providing citizens with access

to information, education, and healthcare services that were previously out of reach. The proliferation of mobile phones has been particularly transformative, enabling people in remote and rural areas to connect with the wider world, access financial services through mobile banking, and participate in the digital economy. The number of mobile subscribers has grown exponentially over the past two decades, from a few million in the early 2000s to over 54 million today, reflecting the transformative impact of mobile technology on Algerian society.

In the education sector, the internet has opened up a world of learning opportunities for students and educators. Online learning platforms, digital libraries, and educational resources are now accessible to a growing number of Algerians, helping to improve the quality of education and to bridge the knowledge gap. Similarly, in the healthcare sector, telemedicine is emerging as a promising tool for improving access to healthcare services, particularly in remote areas where there is a shortage of medical professionals. Remote consultations, teleradiology, and other e-health applications have the potential to revolutionize healthcare delivery in Algeria. The growth of the telecommunications sector has also been a significant source of job creation. The three mobile operators are major employers, and the development of the wider digital ecosystem is creating a host of new employment opportunities in areas such as software development, digital marketing, and e-commerce. Furthermore, the increased connectivity is enabling the growth of the gig economy and providing new income-generating opportunities for individuals.

However, the socio-economic impact of telecommunications development has not been without its challenges. The digital divide between urban and rural areas remains a major concern, and there is a risk that the benefits of the digital revolution will not be shared equally by all. There are also concerns about the impact of social media on society, the spread of misinformation, and the need to protect children online. Addressing these challenges will require a multi-faceted approach, involving not only the regulator but also the government, civil society, and the private sector. The role of ARPCE in promoting digital literacy and ensuring that vulnerable populations have access to affordable telecommunications services is crucial for achieving inclusive digital development.

Section 2: Challenges and Criticisms

Despite the significant progress that has been made, the Algerian telecommunications sector and its regulator, ARPCE, still face a number of challenges. One of the main criticisms leveled at the sector is the relatively high cost of broadband internet access compared to other countries in the region. While prices have come down in recent years, they remain a barrier for many Algerians, particularly those in lower-income brackets. This has a direct impact on the uptake of digital services and the development of the digital economy. The affordability issue is particularly acute for fixed broadband services, which are significantly more expensive than mobile broadband. ARPCE has been working to address this issue through regulatory measures aimed at promoting competition and reducing barriers to entry for new providers.

Another challenge is the quality of service. While the mobile networks have seen significant investment and improvement, the fixed-line network, particularly in rural areas, still suffers from underinvestment and poor quality of service. This digital divide between urban and rural areas is a major concern, and addressing it will require a concerted effort from both

the government and the private sector. The challenge is compounded by the geographic and demographic characteristics of Algeria, with vast distances and a dispersed population in some regions making infrastructure deployment costly. ARPCE has implemented universal service obligations to ensure that operators invest in underserved areas, but more needs to be done to bridge this gap.

Furthermore, while ARPCE is legally an independent body, there are concerns about the extent of its de facto independence from the government. The appointment process for the board of directors and the authority's reliance on the government for its budget can create potential for political influence. Ensuring the full and effective independence of the regulator is crucial for maintaining a stable and predictable investment climate. International best practices suggest that regulators should have multi-year budgets, independent appointment procedures, and clear protections against arbitrary dismissal of board members. Strengthening these aspects of ARPCE's governance would enhance its credibility and effectiveness.

Finally, the rapid pace of technological change presents a constant challenge for the regulator. The emergence of new technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain will require ARPCE to continuously update its regulatory framework and to develop new skills and expertise. The authority will need to be agile and proactive to ensure that the regulatory environment keeps pace with the market and that it is able to effectively regulate these new and emerging services. This may require the recruitment of additional staff with specialized expertise in emerging technologies and the establishment of partnerships with academic and research institutions.

Section 3: Comparative Analysis: ARPCE and Other Regional Regulators

To better understand ARPCE's role and performance, it is useful to compare it with other telecommunications regulators in the region. The regulatory landscape in North Africa and the Middle East is diverse, with different countries adopting different approaches to telecommunications regulation. Some countries, such as Morocco and Tunisia, have established independent regulators similar to ARPCE, while others have maintained a more centralized approach to regulation. The comparative analysis reveals that ARPCE's model of independent regulation has been effective in promoting competition and attracting investment. However, there are also lessons to be learned from the experiences of other regulators, particularly in addressing challenges such as the digital divide and ensuring consumer protection in the digital age. ARPCE's participation in regional regulatory networks, such as the Arab Regulators Network (AREGNET), provides opportunities for knowledge sharing and best practice exchange with other regulators in the region.

Conclusion and Future Perspectives

The Electronic Communications Regulatory Authority (ARPCE) has been a central figure in the transformation of Algeria's telecommunications sector. By creating a stable, transparent, and pro-competitive regulatory environment, ARPCE has successfully attracted significant investment, both domestic and foreign. This investment has led to a modern and competitive telecommunications market, characterized by a wide range of services, competitive prices, and a high level of innovation. The authority has successfully navigated the

complex transition from a state-controlled monopoly to a liberalized market, balancing the interests of the state, investors, and consumers. The result is a telecommunications sector that is not only a significant contributor to the national economy but also a key enabler of the country's broader development goals. The Algerian experience offers a compelling case study of how an independent and competent regulator can play a pivotal role in unlocking the potential of the telecommunications sector and in driving a country's digital transformation. While the journey is far from over, the foundations have been laid for a vibrant and inclusive digital future for Algeria.

Looking to the future, the Algerian telecommunications sector is poised for further growth. The deployment of 5G, the expansion of the national fiber optic network, and the growing demand for digital services will continue to drive investment in the sector. However, there are also challenges that need to be addressed. These include the need to ensure that the benefits of the digital economy are shared by all citizens, the need to protect consumers from the risks of the digital world, and the need to continuously adapt the regulatory framework to the rapid pace of technological change. ARPCE will continue to play a critical role in addressing these challenges and in shaping the future of Algeria's telecommunications sector. The authority's priorities in the coming years will likely include: (1) facilitating the rapid and efficient deployment of 5G networks; (2) promoting investment in rural and underserved areas to bridge the digital divide; (3) strengthening the consumer protection framework to address the challenges of the digital age; and (4) adapting the regulatory framework to the convergence of telecommunications, media, and information technology.

By continuing to pursue a forward-looking and pro-investment regulatory agenda, ARPCE can help to ensure that the telecommunications sector continues to be a major driver of economic growth and social development in Algeria for years to come. The authority's ability to adapt to technological change, to foster a competitive and innovative market, and to ensure that the benefits of the digital revolution are shared by all will be crucial for Algeria's future prosperity in the digital age. The success of ARPCE in these endeavors will not only benefit Algeria but will also serve as an inspiration and a model for other developing countries seeking to harness the transformative power of telecommunications for economic and social progress. In conclusion, ARPCE's role as the regulatory authority for Algeria's telecommunications sector has been instrumental in creating an environment conducive to investment and innovation. As the sector continues to evolve and new challenges emerge, ARPCE's continued commitment to independent, transparent, and pro-competitive regulation will be essential for ensuring that Algeria's telecommunications sector remains a driver of economic growth and social development in the years to come.

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