

The role of digital transformation in the social security sector in the fight against corruption in Algeria

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Abstract:

Financial and administrative corruption is one of the major challenges facing countries around the world. For this reason, Algeria has been working to implement a digital system in public institutions and administrations in order to improve performance on the one hand, and to achieve transparency and reduce corruption on the other.

The reform of the social security system is linked to the need to adapt its means to technological changes and developments, in line with modern global digitalisation, which aims to accelerate sustainable development and improve services for social security beneficiaries.

The digital transformation of the social security sector contributes to the fight against corruption, with the aim of modernising the sector and improving performance by eliminating all forms of bureaucracy, favouritism, embezzlement, fraud and all practices related to corrupt activities. It also promotes the benefits of using information and communication technology to build a positive institutional culture among all staff.

Keywords: digitalisation, social security, corruption, transparency, technical systems.

INTRODUCTION

Administrative corruption is a prominent form of corruption worldwide, largely due to the dominance of bureaucratic dealings, bribery and favouritism. This requires governments to implement specific programmes and plans to eradicate it and its economic and social consequences.

In Algeria, administrative corruption has had a significant negative impact on all sectors. Strengthening digital transformation and expanding the scope of digitisation of public services in the government sector is one of the most effective ways to fight corruption and create a transparent administrative environment that promotes equitable economic development and treats all stakeholders according to the principle of equality.

The Algerian state has made a concerted effort to adopt a multi-pronged strategy to prevent and combat corruption, aimed at improving its legislative and institutional framework to ensure greater efficiency in the work of the institutions and bodies responsible, using modern digital approaches and mechanisms. Algeria was a pioneer in ratifying the United Nations Convention against Corruption in 2004¹, and was one of the first countries to align its domestic legislation with the Convention by enacting a stand-alone anti-corruption law in 2006². It has also worked to implement e-governance in various sectors, including the social security sector, which is the focus of our study.

E-governance is a new mechanism for modernising public services, aimed at ensuring the delivery of better services to citizens while combating all forms of corruption by promoting transparency and integrity in management and organisation. It also ensures alignment with scientific advances that have implications for improving development programmes, particularly in the economic and social dimensions.

¹ The United Nations Convention Against Corruption is a binding international legal document adopted by the UN in 2003, involving more than 187 countries. The convention contains 71 articles divided into eight chapters. The first part states: "Prevention means all legislation and procedures that each state must implement to establish transparency, oversight, and controls in a manner that makes it difficult for corrupt individuals to engage in corrupt activities." [Source: <http://www.unodc.org>]

² Anti-Corruption Law, Law No. 06-01, dated February 20, 2006, concerning the prevention and combating of corruption, Official Gazette No. 74, issued on November 22, 2006, Year 43.

Information and communication technology necessitates the development of government apparatuses in line with global advancements in utilizing technical systems for service management. The ultimate goal that countries seek to realize in their progress is to simplify and facilitate dealings between the government, citizens, and administrative and economic institutions, providing integrated and rapid information to all officials to improve the performance of government bodies and facilitate citizens' access to services at minimal cost. This increases the connectivity between workers and the government, allowing them to monitor and manage all resources¹.

Algeria has worked to modernize its social protection system and confront all forms of administrative and financial corruption through the digital transformation programs of social security bodies, aimed at improving performance and enhancing their ability to respond to the aspirations and ambitions of social security contributors, as well as combating all forms of corruption within the sector. From this standpoint, we pose the following question: To what extent has the digital transformation of the social security sector contributed to combating corruption in Algeria?

Study methodology

To address the problem of the study, the research requires the adoption of two main methodologies: the descriptive approach, which highlights and describes Algeria's experience in implementing modernisation techniques in the social security sector, and the analytical approach, which analyses and evaluates the extent to which the digital transformation of the sector contributes to combating corruption.

In order to analyse the subject of the study, we have divided the research into two main sections:

Section One: The strategy for modernising the social security sector in the fight against corruption in Algeria

Electronic governance is considered a new mechanism for modernising public services, aiming to provide the best services to citizens while ensuring transparency in management and organisation, as well as equality, while keeping pace with scientific progress. The field of information and communication technology is now based on

¹- Jaque Audinet (1971). Sécurité Sociale, published by the Ministry of the Interior, Algeria, p. 91.

legal oversight standards, as these are the primary criteria by which the progress and transparency of nations in the 21st century will be measured¹. This has become an indicator for detecting various forms of corruption. Thus, we find that “comparative social security systems take into account the social and economic context, both national and international, within the characteristics of social protection systems that need to adapt to the challenges of digital globalisation”².

Subsection One: Checks on the modernisation of the social security sector to combat corruption in Algeria

Algeria’s economic development can only succeed if it is accompanied by genuine social development that fights all forms of corruption. This will require the adoption of a number of decisions and measures³ to facilitate the modernisation of the social protection system in accordance with specific controls.

Subsection One: Objectives of the digital transformation of the social security sector in Algeria

The shift of countries towards digital transformation strategies since the beginning of this century is not coincidental, but is the result of new factors that have contributed to the phenomenon of government strategies for digital transformation. These factors include governments’ recognition of the importance of the knowledge economy and the digitisation of public services, as well as their ability to drive economic development.

Digital transformation is also considered to be one of the most effective management approaches, creating a dual effect of “improving the quality of public services and rationalising public spending while combating corruption”, which has had a negative impact on the functioning of public services.

¹- Mahmoud Al-Qudwa. E-Government and Contemporary Administration, 1st Edition, Dar Osama, Jordan, 2010, p. 5.

²- Jean-Jacques Dupeyroux (2005). Droit de la Sécurité Sociale, 15th ed.; Dalloz, Paris.

³- Araba Haj and Zarqoun Mohamed. "Modernizing the Social Security System in Algeria: The Experience of the Health Card," Economic Researcher Journal, Issue 2, University of Bordj Bou Arreridj, Algeria, 2014, p. 126.

Faced with this reality, imposed by the results of the global era of digital technology, the Algerian government has outlined the “E-Algeria” project with a vision for 2013¹. This initiative aims to keep pace with these developments in various sectors, including social security, by improving the information and communication technology infrastructure. The aim of e-government is simply to produce and distribute information and services electronically, 24 hours a day, 7 days a week, through electronic administration, in a way that is focused on meeting the needs of citizens and businesses².

The electronic applications recently launched³ by the Ministry aim to provide electronic services to citizens and simplify administrative procedures to digitise services and reduce bureaucracy. The outlined digital transformation strategy focuses on four main pillars for the digitisation of public services, enabling the creation of these applications to provide electronic services to citizens and reduce the burden on employees.

The main objectives of the digital strategy for the social security sector can be summarised as follows:

1. Complete digitisation of the services provided by the sector.
2. To strengthen and extend the use of information technology.
3. Introduction of electronic certification and elimination of the physical nature of documents.
4. Rapid implementation of information systems and centralisation of data.
5. Improving collaboration and providing qualified human resources through intensive and specialised training.

In this context, the Social Security Sector has announced the launch of 10 new digital applications and platforms. These digital services include features such as facial

¹- Nour Eddine Chenoufi and Moulay Khalil. "Towards Establishing E-Government in Algeria: Achievements and Obstacles—The Experience of the Social Security Sector," *Journal of Strategy and Development*, Issue 10, Vol. 6, Mostaganem, Algeria, 2016, p. 266.

²- Mohamed Samir Ahmed. *E-Government*, 1st Edition, Dar Al-Maseera, Amman, 2009, p. 53.

³- Algerian Radio, Channel One. "The Digitization Strategy of the Ministry of Labor, Employment, and Social Security Aims to Combat Bureaucracy," 01/04/2021.

recognition for pensioners¹, an individual account platform for employees, remote maternity leave compensation applications and an electronic pension account service at the National Social Security Fund for the self-employed.

The social security sector is considered one of the leading sectors in the integration of information technology in its management. It is constantly working to develop the digital services it offers and to keep pace with sustainable development in the context of building a new Algeria, through an ambitious work programme based on clear strategies derived from the government's action plan to fulfil the commitments of the President of the Republic.

Subsection Two: Dimensions of the strategy to modernise social security in the fight against corruption in Algeria

The United Nations defines administrative corruption as the misuse of public authority, position or power for private gain, whether through bribery, extortion, abuse of influence, favouritism, fraud or offering bribes to expedite services, or through embezzlement. Meanwhile, the Algerian legislator defines it as any criminal or improper use manifested in the following forms “misappropriation of and damage to property, bribery and similar offences, offences relating to public contracts and concealment of corruption offences”².

Algeria is striving to develop its digital services, despite a significant delay in entering the era of digital transformation and digitisation of public services. The country aims to curb rampant administrative and financial corruption in social security funds, while creating a dynamic growth environment linked to digitalisation and the knowledge³ economy, which play a key role in preventing and combating administrative corruption.

Digital transformation is an indispensable entry point for preventing and combating corruption because of its speed in detecting corrupt individuals and its effectiveness in developing preventive plans. Algeria is not outside this field.

¹- Statements by the Minister of Labor, Employment, and Social Security, reference above, 01/04/2021.

²- Article 2 of Law No. 06-01 concerning the prevention and combating of corruption, reference above.

³- Abdel Hamid Roulami. "Enhancing Digital Transformation as a Strategic Approach to Preventing and Combating Administrative Corruption in Algeria," *Journal of Social and Human Sciences*, Vol. 15, No. 3, Algeria, December 2022, p. 86.

E-governance, with its various applications, has contributed significantly to modernising all areas of the social security sector at all levels. Its technologies have evolved from traditional paper-based management to electronic management and are aimed at combating all forms of corruption, particularly administrative and financial corruption, which affects many countries, including Algeria, as reflected in the rankings established by Transparency International in its annual report¹.

The modern management of the social security sector, equipped with innovative technologies, has rationalised the direct relationship between users of the sector and social security contributors, which was often characterised by tensions and disputes. This has helped to avoid any form of extortion, favouritism or falsification, as social security contributors now interact directly with a computer and a digital platform.

Algeria's strategy is to use all programmes and technologies related to digitisation, including visual communication technologies, remote working and the introduction of digital applications and platforms. It also aims to digitise administrative documents, which play an important role in reducing corruption by leaving an electronic trail for each transaction.

The digital transformation of the social security sector has enabled citizens to access the information they need under optimal conditions and in a shorter time. This has led to improved interaction with the authorities, resulting in a qualitative leap in the delivery of services to social security contributors, indicating an increase in the efficiency of electronic administration in the sector.

This digital transformation has brought numerous benefits to social security contributors, including "facilitating interactions, improving the efficiency of the economic system, increasing transparency and reducing corruption"². It has also progressively eliminated the reliance on paper documents for medical treatment, simplified procedures and cancelled reimbursement processes at social security centres, allowing, as a first step, faster access to entitled reimbursements.

Without qualified human resources and the promotion of collaborative work and collective intelligence, the social security system will not be able to keep pace with

¹- Abdel Aziz Shamlal. "E-Government and Its Role in Combating Corruption," *Journal of Legal and Political Sciences*, University of Al-Wadi, Vol. 10, No. 2, Part 4, Algeria, 2019, p. 1373.

²- Khawla Rashij Hassan. "The Economic Dimensions of E-Government," *Al-Ghari Journal for Economic and Administrative Sciences*, Issue 30, University of Kufa, Baghdad, 2014, p. 6.

technology in a way that reflects Algeria's social and economic realities. The ultimate goal of modernisation is to continuously improve the performance of social security, to enhance its ability to interact with the aspirations and ambitions of citizens, and to develop its contribution to accelerating sustainable development, as it is one of the leading sectors in integrating information technology into its management¹.

The social security sector is highly focused on elements that enhance functional performance in the context of digital transformation. This includes training during internships and on-the-job training to achieve a level of service quality in the social security sector, while improving the professional scientific level of employees to keep pace with digitalisation.

Establishing control mechanisms in the digital system of the social security sector

The control function is the final result of the performance of a series of administrative functions aimed at protecting public funds and property from misuse, waste and abuse. Financial and administrative control are fundamental pillars in the concept of good governance, making them essential mechanisms for combating administrative and financial corruption in the social security sector. In addition, medical oversight plays an effective role in ensuring that social security contributors and their beneficiaries receive services in a legitimate and regulated manner.

The Ministry of Labour, Employment and Social Security has been working on the modernisation of services and management to establish control principles within the databases and software designed for this purpose.

Subsection 1: Transparency and accountability

Transparency and accountability are effective mechanisms for reducing administrative and financial corruption, and they are fundamental components of good governance, which is a prerequisite for achieving development. These concepts are interrelated and intrinsically linked; there can be no transparency without accountability, and accountability cannot be achieved without transparency.

¹- Samia laib and Rima laib. "The Impact of Digital Technology on Human Development in the Social Security Sector in Algeria," Research Journal in Educational, Human Sciences, Literature, and Languages, University of Basra and Al-Ramah Center, Vol. 2, Issue 4, 15/04/2021, Jordan, p. 76.

The standard of transparency is a successful means of contributing to the detection and eradication of financial and administrative corruption. Transparency enables the disclosure of facts and informs citizens about government policies, especially those related to the state budget, through various media, which play an important role in exposing government corruption and crimes related to the misappropriation of public funds¹.

The concept of transparency goes beyond the mere prevention of corruption, which results from the absence of democratic practices and the restriction and closure of public freedoms. When a society becomes truly democratic, transparency is achieved and corruption becomes an impossible challenge.

With regard to the principle of accountability, the United Nations Development Programme has defined it as the requirement that public officials provide stakeholders with the necessary explanations of how they exercise their powers, carry out their duties, respond to criticism directed at them, meet necessary requirements, and accept some responsibility for mistakes or failures resulting from their decisions. Accountability involves giving an account of actions to a body that has the right to oversee those actions.

In the context of social security, the concepts of transparency and accountability are linked to the legal framework, policies and procedures of financial, administrative and medical oversight bodies, which are essential to ensure the effectiveness of the bodies responsible for disclosing the legality and effectiveness of the use of public funds and the actions taken within that framework.

Subsection 2: Integrity and accountability

There is a close relationship between the concepts of transparency and integrity; however, integrity relates to moral ethical values, whereas transparency relates to systems and practical procedures. Integrity is defined as a set of values related to honesty, trustworthiness and dedication to work, as well as adherence to proper conduct to avoid conflicts of interest and a commitment to the public good. It requires individuals in high public positions to disclose any potential conflicts of interest that may arise between their private interests and the public interests associated with their

¹- Fares bin Aloush bin Badi Al-Subaie. "The Role of Transparency and Accountability in Reducing Administrative Corruption in Government Sectors," Naif Arab University for Security Sciences, PhD Thesis, Riyadh, 2010, p. 14.

positions. For example, if a person holds a government position while having interests in the private sector, this could give rise to conflicts in various areas, such as contracts, gifts or bribes to influence actions that affect the public interest or lead to the misappropriation of public funds.

The principle of accountability refers to the legal, ethical and administrative responsibility of individuals in public positions for the results of their actions in the event of any form of corruption. In this regard, the Director of the Modernisation of Labour, Employment and Social Security Systems at the Ministry has emphasised that the electronic applications recently launched by the Ministry aim to provide electronic services to citizens and simplify administrative procedures for the digitalisation of services, as well as to combat bureaucracy, favouritism and bribery.

Section Two: Achievements of the modernisation of the social security sector in the fight against corruption in Algeria

The digital future of social security looks promising, as the sector has one of the most advanced digital platforms and advanced data centres (DATA CENTER). This is in addition to the many successes achieved by the sector at national and international levels, such as the awards received by the National Social Security Fund (CNAS) at the World Summit on the Information Society organised by the International Telecommunication Union in Switzerland¹, as well as the recent award for the best website² in the public administration category for 2019.

Subsection One: Technical systems for the digitalisation of the social security sector in Algeria

The social security sector has embarked on a major reform programme for its institutions, aimed at providing the best possible service to social security contributors and their beneficiaries. This initiative aims to improve the quality of services,

¹- The Union was established in 1865 to enhance cooperation among international telegraph networks at the time, thus predating many other standardization bodies. Its rich and distinguished history makes it "the first" in several important areas, such as standardizing the use of Morse code and the first radio communication networks. For more information, see: [ITU Document](https://www.itu.int/dms_pub/itu-s/opb/conf/S-CONF-AREP-2009-PDF-A.pdf).

²- Statement by the Minister of Labor, Employment, and Social Security, 17/12/2019.

modernise the management of social security institutions and maintain their financial stability¹.

The programme also focuses on intensifying efforts to improve and promote public service by equipping funds and agencies with digital platforms and advanced data centres. This includes connecting networks and developing systems according to international standards and benchmarks, ensuring the security of information and the continuous provision of remote services using the latest technologies. Internal communication networks (intranet) have been created, as well as several operational systems specific to these networks.

Subsection Two: Establishing professional software

The success of economic development in any country can only be achieved alongside genuine social development, which should be based on an effective social security system. This system must consistently respond to the lived social reality and be based on tools and mechanisms that keep pace with the various developments in the world of social protection², adapting to modern technological and digital advances.

First: Digital technologies

The introduction of computerisation and the provision of professional software to various social security departments has facilitated the procedures for obtaining various benefits. This has led to a significant increase in the sector's computer capacity, which is a source of pride, as well as a significant increase in the number of accounting centres.

The Ministry of Labour, Employment and Social Security is drawing up a future programme for digital transformation, adopting the best and latest digital technologies, encouraging innovation and creativity, and strengthening their role in improving the various tasks of the social security sector.

¹- Bouhania Qawi and Ghaziz Mohamed Tahar. "Self-Management of the National Social Insurance Fund in Algeria," Political and Legal Notebooks, University of Ouargla, Issue 7, Algeria, 2012, p. 135.

²- Araba Haj and Zarqoun Mohamed. "Modernizing the Social Security System in Algeria: The Experience of the Health Card," Economic Researcher Journal, Issue 2, University of Bordj Bou Arreridj, Algeria, 2014, p. 126.

The SYSCAS system, a newly developed electronic information system, has significantly improved the overall performance of the social security funds¹. It is designed to manage all operations related to the collection, monitoring and dispute management of social security funds.

This system (SYSCAS) has effectively improved the performance of the fund through accuracy and speed in processing operations, which has had a positive impact on the performance of the fund. Electronic information systems designed for automated operation are more effective and efficient than less complex systems. This has led social security structures to take advantage of modern information technology by replacing manual information systems with computerised systems that are faster, more accurate and more efficient.

The discussion of information systems in their traditional form is not new; rather, the computerisation of information systems is the innovation. The emergence of computers, networks, software and other dimensions in information systems represents this new approach. Turban defines an electronic information system as “a system that uses computer technology to perform some or all of the required tasks”².

Second: Technologies for the provision of remote services

The Ministry has undertaken highly advanced technological projects in the social security sector, with services diversifying and multiplying according to their nature. The most important initiatives include

- Establishing data centres and connecting networks, while developing systems according to international standards and benchmarks. This ensures the security of information and the continuous provision of remote services using the latest technologies. Several applications have been developed, particularly in the fields of employment and social security, as part of a coordinated and integrated strategy involving other sectors in the framework of mutual administrative assistance.

¹- Shawki Jaddi and Haj Araba. "The Role of Electronic Information Systems in Improving the Performance of the Social Security Fund for Non-Salaried Workers in Tebessa Province: An Applied Study on the SYS-CAS System," *Researcher Journal*, University of Qasdi Merbah, Ouargla, Issue 16, Algeria, 2016, p. 135.

²- Moussa Ahmed Al-Saudi. "The Impact of Computerized Administrative Information Systems on Employee Performance in the Social Security Institution (Field Study)," *Journal of Administrative Sciences Studies*, Scientific Research Deanship, Jordan University, Amman, Vol. 33, No. 1, Jordan, 2005, p. 59.

The link between the databases of the social security funds and the National Business Register database has been established. This allows citizens who are registered in the commercial register to be automatically enrolled in the National Social Security Fund for Employees (CNAS) and the National Social Security Fund for the Self-Employed (CASNOS). The sector aims to keep pace with the era of modern information technologies and integrate the digital culture in order to provide faster and more effective responses to citizens' concerns and ensure quality services.

Subsection 2: The health system in Algeria

The health system is considered to be the largest project in the field of management modernisation. It is the result of a continuous and painstaking effort to combine information technology, electronics and wired and wireless communications. This system is based on the latest and most precise technologies and forms a vital link between the social security system, the insured and health professionals.

First: Stages in the establishment of the health system

The health system was implemented in two phases. The first phase, which began in 2007 and ended in 2012, was to lay the foundations for the system. During this period, the sector worked to put in place all the tools and mechanisms necessary for the proper functioning of the system, ranging from equipment to the establishment of an information network and the development of information applications¹.

The second phase involves the widespread use of the health card in all the country's provinces, which began on 3 February 2013. This means that every insured person can use the health card to obtain medicines from any contracted pharmacy, whether in the province where they live or in any other province in the country.

The ambitious healthcare project relies on the use of "precise" technologies to produce a smart card, known as the Health Card, with a storage capacity of "32 kilobytes". This card complies with ISO standards 7810 and 7816. This system is part of a comprehensive modernisation of the social security sector, the implementation of which has made Algeria a pioneer at both continental and Arab level. It is a complex system, both technically and operationally, with structural implications for the functioning of the Fund and its environment.

¹- Official website of the National Social Insurance Fund for Salaried Workers (2024), Health Page.

The objectives of this system include improving the quality of the services provided by simplifying the procedures for obtaining benefits, ensuring regular and rapid reimbursements, improving relations between health care providers (pharmacists, doctors, health facilities), managing operations through productive capacity, ensuring accuracy in monitoring, combating all forms of fraud and abuse, establishing an accurate social security information database and facilitating long-term forecasting studies for the social security system¹.

Second: The Health Card and Electronic Keys in Uncovering Administrative and Financial Corruption

Executive Decree No. 10-116 was issued to define the content of the electronic card for social security contributors, as well as the electronic keys for healthcare facilities and health professionals, including the conditions for its issuance, use, and renewal². Article 2 of this decree refers to the electronic card as the “health card,” which contains personal information along with a photo of the insured individual, as well as an electronic structure known as a “microchip.”

The health card is divided into three types: an individual card (for chronic illness), a family card (for up to six members), and a card for dependents (for more than six members). Notably, the serial number is unique for each card, even if the same insured individual holds all three types.

A National Center for the Electronic Health Card was established under Executive Decree No. 12-92, which classifies it as a public institution with legal personality and financial independence³. This center oversees the widespread application of the health card and considers all studies aimed at improving services or developing the health card further⁴.

¹- Rkia Skil. "Adapting the Legislative Framework to Modernize the Social Security System: The Legal Framework for the Electronic Health Card," *Comparative Legal Studies Journal*, University of Hassiba Ben Bouali, Chlef, Vol. 2, No. 1, Algeria, 2016, p. 91.

²- Executive Decree No. 10-116, dated April 18, 2010, defining the content of the electronic card for the insured, the electronic keys for healthcare structures and health professionals, and the conditions for their issuance, use, and renewal, *Official Gazette* No. 26 of 2010.

³- Executive Decree No. 12-92, dated February 28, 2012, establishing the National Center for the Electronic Card for the Insured, *Official Gazette* No. 13 of 2012.

⁴- Article 5 of Executive Decree No. 12-92, reference above.

The health card is a key tool for detecting any abuse or manipulation by the insured or their relatives, as well as by social security staff, including pharmacists, who use it through software linked to the electronic keys.

Recently, the Algerian social security sector has experienced numerous cases of corruption in this context, which have led to criminal prosecutions. This suggests that the electronic health system has been instrumental in detecting any attempts at negligence, shortcomings, fraud or misuse of health cards.

As for the electronic keys, the legislator regulated them in chapter two of the aforementioned Decree No. 10-116, clearly defining their content and use, as well as the conditions for their issuance and renewal to health care institutions and professionals¹. These keys operate on the basis of software provided free of charge by the National Social Security Fund.

The use of electronic keys by health facilities or services involved in treatment, as well as by health professionals, allows access to authorised data on the insured person's health card. They also allow the creation and signing of electronic invoices and the submission of any documents or additional data to the social security authorities. Furthermore, this modern technology contributes to the registration and recording of all services and benefits provided to social security contributors and/or their dependents.

This technology also facilitates remote electronic access by insured persons, in compliance with medical ethics, to all medical treatments and pharmaceutical products covered or reimbursed by the social security system. This information is detailed in the databases of the social security institutions and must be verified before any medical treatment or pharmaceutical product is prescribed or provided, except in cases of medical emergency or force majeure².

Despite the many benefits that technological systems bring to the modernisation of the social security sector in Algeria, it unfortunately still suffers from technical shortcomings, mainly due to insufficient internet bandwidth, which has a negative impact on the efficiency of services. In addition, there is a lack of effective control

¹- Article 3 of Law No. 08-01, dated January 23, 2008, Official Gazette No. 4 of 2008, amending Law 83/11 concerning social insurance.

²- Article 20 of Law No. 11-08, dated June 5, 2011, Official Gazette No. 32 of 2011, amending Law 83-11 concerning insurance.

over the software systems, as human resources struggle to manage these systems easily.

Sub-section two: Applications of digital transformation in the social security sector

The social security sector has received its share of Algeria's efforts to modernise public administration, with a focus on better meeting citizens' needs and ensuring greater stability and improved performance. This requires a commitment to providing quality public services from all its basic structures, with the aim of improving communication and ensuring respect and appreciation for the insured.

The social security sector is concentrating on developing its modernisation programmes by facilitating administrative procedures and ensuring the quality of public service provision at the infrastructure level, as this is the direct link between the insured and the agencies and funds. The development and modernisation of the infrastructure has taken two forms: modernisation in terms of new services offered or modernisation in the management of the social security system.

Subsection One: Modernising social security services

Optimal and effective use of digital programmes and systems requires that services are delivered in the shortest possible time and under the best conditions, especially when used as intended and in an appropriate environment. Digital transformation in the social security sector has enabled faster processing of files remotely, without recourse to traditional paper medical records, significantly reducing the burden of travel on the insured to national fund offices. The modernisation of benefits and monitoring services is evident in the newly established services, which take the following forms:¹

First: Setting up remote reporting for administrative and financial control

Activity declarations to the social security offices are generally submitted by filing a dossier with the National Social Security Fund for Salaried Employees in the province where the company is located. However, as part of the modernisation process, the

¹- Slim Ammiour. "Modernizing the Social Security System: An Informational and Awareness Day for Public Administrations and Local Communities in Qalmah Province," April 26, 2018, National Social Insurance Fund for Salaried Workers, Qalmah Agency, Algeria, 2018, p. 3.

social security sector now offers a new service called “remote declaration via the Internet”.

Remote reporting allows the declaration of social security contributions and the annual declaration of employees and wages to be completed online through a secure, free reporting portal that is available 24 hours a day, eliminating the need to travel and submit documents. With this procedure, the sector takes full responsibility for any delays in reporting¹, as all electronic mechanisms are available to ensure compliance within the legal deadlines.

Second: Establishment of electronic payment mechanisms for financial control

The National Social Security Fund for Salaried Workers has introduced a new procedure for employers: the “online payment service”. This service allows the immediate and secure payment of declared social security contributions through the remote declaration portal, which is available 24 hours a day, 7 days a week, without the need to travel or submit documents. This service offers three payment methods, including:

1. Electronic payment with bank cards,
2. Online banking
3. Payment through electronic payment terminals at social security offices, which allow direct payment by bank card.

There is a significant correlation between the dimensions of electronic banking and the quality of banking services provided to insured persons². The importance and contribution of electronic banking to the development of a digital economy in Algeria, based primarily on information technology and the Internet, is clear.

The introduction of this electronic service reflects the urgent desire of the social security sector to adopt new mechanisms for dealing with the various stakeholders, in line with the major changes taking place in the country, aimed at improving and modernising public services and eliminating all possible avenues for corruption.

¹- Article 6 of Law No. 83-14, dated July 2, 1983, concerning the obligations of contributors in the field of social security, amended and supplemented, Official Gazette No. 28 of 1983.

²- Ghazali Zareefa and Al-Ajjal Al-Oumariya. "The Role of Electronic Banking in Improving the Quality of Banking Services," Business and Trade Economics Journal, Vol. 7, No. 2, Algeria, 2022, p. 140.

Third: Implementation of the “e-Hena” space for equal access to public services

The social security sector has created electronic spaces dedicated to the insured, such as the “E-Hena” portal, which allows them to access available services and clearly improves the relationship between agencies, funds and the insured, thus reinforcing the principle of equal access to social security services.

This space embodies the continuity of the public service, while ensuring that the administration is closer to the citizens. It aims to eliminate delays in decision-making by providing the necessary data and linking them directly and in real time to central decision-making centres, thereby reducing bureaucracy and obstacles to timely decision-making.

Subsection Two: Modernizing the Management of the Social Security System

Efforts have been made to introduce several new mechanisms and measures aimed at reducing administrative procedures. These include the exchange of administrative documents between bodies under the supervision of the Ministry, instead of requiring the insured to submit them, as part of the administrative cooperation between social security funds. In addition, the requirement for notarisation of copies of administrative documents has been abolished.

The Ministry has been working on establishing new mechanisms within the modernisation programme, which focuses on modernising the infrastructure of the social security sector. Below are the main aspects that reflect the digital transformation of the sector in practical terms.

First: The role of reception and communication cells in improving transparency

The tasks of the “Citizen Reception and Social Listening Cell” are directly linked to the effective care and comfort of the insured by improving the quality of the services provided within the structures of the Ministry of Labour and Social Security. This cell aims to improve the relationship between public services and citizens. Its role is to intervene in support of all the central structures of the sector, the decentralised

services and the national bodies under its supervision, in order to facilitate the rapid resolution of complaints submitted by citizens¹.

These reception and communication cells are present in each agency and at the level of general directorates, where they guide and assist citizens through the procedures until they obtain the desired results. In this context, a Vigilance Committee has been set up to ensure the implementation of the Public Service Improvement Directives, which sends monthly reports to the Directorate-General for follow-up. In addition, a survey has been carried out in all structures, accessible to citizens, in order to assess the quality of the public service in all its aspects².

Second: The one-stop shop and cutting red tape

A one-stop shop has been set up within the social security institutions to bring services closer to the insured and to facilitate quick access to various benefits³. Previously, each counter specialised in providing a specific service; now, the insured can approach the one-stop shop to receive any service from the social security institutions without being hindered by the distribution of specialities.

The one-stop shop allows each employee to provide all services, rather than directing citizens to other departments. This approach simplifies administrative procedures as part of the fight against bureaucracy, bringing the administration closer to the citizen and improving public service⁴.

Third: The contribution of agency and fund websites to improving integrity

Social security funds have developed their websites to serve their members as modern communication tools, adding value to the social communication process through information and communication technology. These websites act as electronic bridges,

¹- Ammiour Slim, reference above, p. 10.

- Instruction No. 409, dated March 26, 2014, concerning the submission of monthly reports to the General Directorate for the purpose of evaluating the improvement of public service.

²- Circular No. 549, issued on 4 April 2017, followed by the issuance of implementing texts explaining its application, effective from 23 April 2017.

³- Samia Laib and Mounia Chouaidia (2019). Régime de la sécurité sociale en Algérie, *Revue des Sciences Juridiques et Politiques*, Vol. 10, No. 02, El Oued, Algeria, p. 1786.

⁴- Zahia Hamitouche. "Improving social communication at the National Social Security Fund for Salaried Employees: Approaches and Prospects", Awareness Day, November 2018, General Directorate, Central Administration of the Ministry of Social Security, unpublished study, Algeria, 2018, p. 8.

providing access to all the information documents that enable users to understand the tasks and benefits offered, and are available in three languages.

There has been a noticeable increase in the number of visitors to these sites, especially after users were given the opportunity to download benefit application forms directly from the websites.

The social security websites have adopted modern communication techniques to address citizens' concerns and reduce the need for them to travel to different offices. Concerns can be submitted through an online page entitled "Your Concerns", which facilitates the handling of citizens' requests and reduces unnecessary travel to different offices¹. It also ensures timely responses in accordance with applicable laws. A page has also been created on the social media platform Facebook to keep policyholders informed of the latest developments in the sector and priorities for improving services.

Conclusion

The social security system makes an important contribution to the implementation of the State's social policy, which aims to strengthen the principle of solidarity, to standardise benefits and to redress imbalances by redistributing income in order to achieve universal social protection. However, its link with economic and technological changes can weaken its role. Therefore, alternative solutions have been adopted through the continuous reform of social security structures in order to adapt to economic and social changes and to the modernisation of the sector, which requires adaptation to digital transformations through the adoption of modern management methods and a new organisational culture based on the integration of technology and the transformation of knowledge into services. This is essential to keep pace with development and to combat administrative and financial corruption, which is a real obstacle to the sector's growth.

The digital transformation of the social security sector has modernised the social protection system, responding to the latest technological and digital developments in the context of accelerating sustainable development. Despite some operational shortcomings, it has been effective in reducing manifestations of corruption such as bureaucracy, favouritism and bribery. Based on the analysis carried out in this short study, the following key findings can be made:

¹- Slim Ammiour, cited above, p. 15.

* Despite the various measures taken and the large number of projects registered for the digital transformation of social security institutions as part of the modernisation of the sector in Algeria, the desired results have not yet been fully achieved. This is largely due to the difficulties in integrating technological solutions, as well as certain technical obstacles linked to the low use of the Internet and information and communication technologies. This situation calls for the adoption of a strategy with clearly defined quantitative and qualitative objectives, taking into account the bandwidth capacity, which has become an obstacle for the sector's users to improve services to the insured and even to meet their needs.

* The revolution in information and communication technologies has contributed significantly to strengthening the social security sector's efforts to combat administrative and financial corruption through the use of applications, programmes and databases based on accounting and control standards.

* The digital transformation of the sector and the modernisation of its management have led to a significant improvement in the relationship between agencies, funds and beneficiaries. This reflects transparency and integrity, ensuring the continuity of public services while bringing the administration closer to the citizens and eliminating delays in decision-making by providing the necessary data and linking it directly and in real time to central decision-making centres, thus reducing the obstacles to timely decisions.

* Efforts to combat administrative and financial corruption and to eliminate all forms of manipulation will be realised through self-monitoring and automated follow-up, for example through electronic cards and keys. These tools play an effective role in regulating health care standards and providing electronic access in real time and at a distance.

* There is a need to combine efforts to preserve social security funds and ensure their sustainability as a social asset for all citizens, while continuing to improve and expand the benefits and services provided.

The electronic applications developed in the social security sector have made a significant contribution to modernising the management system and moving it towards better practices, bringing it into line with the latest technological advances in the fields of the Internet, digitalisation and fibre optics. However, Algeria still lags behind the

desired level of digital transformation in all its aspects. We therefore propose several recommendations that highlight the need to intensify efforts in this area in order to catch up with ongoing developments. The main recommendations include:

* Strengthening the infrastructure of social security institutions to accommodate the dimensions of the digital transformation project and modernise the management of the sector.

* The need to review the government's approach to internet bandwidth, as Algeria's lack of high speed internet puts it at a significant global and regional disadvantage, which has a negative impact on the sector's modernisation efforts.

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