

**MINISTRY OF HIGH EDUCATION AND SCIENTIFIC RESEARCH**

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**Dissertation presented by Master Management of electronic government**

**Impact of modernization of trade register on the information system**

**Study case: the national center of trade register**

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## Abstract

The objective of this research is to identify the elements that changed when the modernization of the trade register occurred and the impact of it on the information system within the national center of the trade register, based on qualitative approach guided by unstructured interviews, we found that the national center of the trade register has made a huge step towards e-government and the modernization but the improvements should still be made

Key words: trade register, information system, modernization, e-government.

## Résumé

L'objectif de cette recherche est d'identifier les éléments qui ont changé lors de la modernisation du registre de commerce et son impact sur le système d'information au sein du centre national du registre de commerce, sur la base d'une approche qualitative guidée par des entretiens non structurés, nous avons constaté que le centre national du registre de commerce a fait un grand pas en avant vers l'e-gouvernement et la modernisation, mais des améliorations doivent encore être apportées.

Mots clés: registre du commerce, système d'information, modernisation, e-gouvernement.

## الملخص

الهدف من هذا البحث هو التعرف على العناصر التي تغيرت عند حدوث تحديث السجل التجاري وأثره على نظام المعلومات داخل المركز الوطني للسجل التجاري، بناءً على نهج نوعي يسترشد بمقابلات غير منظمة، ولقد خطا المركز الوطني للسجل التجاري خطوة كبيرة نحو الحكومة الإلكترونية والتحديث ولكن لا يزال يتعين إجراء التحسينات.

الكلمات المفتاحية: السجل التجاري ، نظام المعلومات ، التحديث. الحكومة الالكترونية.

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## **List of abbreviations**

NCTR; national center of the trade register

IS: information system

IT: information technology

WTO: world trade organization

ICT: information and communication technology

WAN: wide area network

ERP: enterprise resource planning

CRM: customer relation management

ERM: employee relationship management

SCM: supply chain management

EAI: enterprise architecture integration

SOA: services oriented architecture

PIS: public information system

e- : Electronic

NADI: national agency for the development of investment

NEA: nomenclature of economic activities

TEC: Trades register electronic code.

# **Chapter 01: Introduction**

## **Introduction**

E-government is globally defined as the use of information and communication technologies by government agencies, with the following main objectives: improving the quality of public services, promoting interaction between businesses and citizens, strengthening citizen participation through access to information and finally reinventing administrative processes to achieve the long-awaited good governance, which has the effect of reducing the costs of administrative services for administration itself and for citizens.

From the definition above, it appears that public administration has much to gain by implementing electronic administration. In most countries, the government is the largest provider and collector of information. One of the biggest roles of the government is to monopolistically provide public information like birth certificates, marriage and death certificates, permits and the like.

The public sector has experienced several evolutions over the last decades, where several countries have followed a new method to link their administrations with their citizens, to ensure the effectiveness and efficiency in the pre-service, for which are in the course of realization, these projects enter within the framework reform of the public sector as well as in the vision of the state, in other words they are projects of e-government like the modernization government process functionality.

The business register which is our choice of research will therefore need to digitalize its information system, by a continuous change process to digital process, based on a sophisticated IT infrastructure, digital applications and optimally networked systems and data, the existing business models, files containing information of traders, and the history of their businesses participation to the business register's fund will be digitally mapped and networked via digital platforms.

## **1. Context and objectives**

Our study highlights what the national center of the trade register has done to modernize the business register, where we are going to see the impact of modernization of the business register on the information system.

### **1.1. Choice of topic**

Digitalization the business register has now become of primordial necessity for every business owner in Algeria, knowing that they are becoming more and more familiar with IT, and the service provided, because they were many administrative difficulties, preventing traders from being more at ease with paper work.

The digitalization took place and with it, it made the tasks easier and facilitated the job to companies and private business owners.

As a student of management of electronic government, our center of interest is the modernization of public services, we chose the national center of the trade register, the process of the digitalization of that center, and the services they offer.

### **1.2. Personal interest**

This dissertation sheds light on the practical side of two years of studies in the field of the management of electronic government, in the national higher school of management which is a relatively new field in this school and in Algeria.

There are lots of studies that dealt with modernization; however, no previous research tackled the impact of modernization of business register on the information system. Therefore, this research is aimed at exploring the impact of the modernization of the trade register on the information system. We will try to apply what we have studied at the school in the professional world, and put theory to practice. The choice of the national center of the trade register is based on the novelty of its services.

## **2. The internship place choice**

In order to start our research we needed an organization that can support us by providing the necessary information, therefore, we opted for a public organization which was looking for the development and improvement of their digital technical management system, which can

welcome us and respond to the constraints in our research subject and which can accompany us and fill our gaps, so we ended up choosing The national center of the trade register.

### **3. Research pertinence**

Indeed, the public sector must respond effectively and efficiently to the needs of the citizen in the fields of economy, education, health and social protection. Its main objective is to continuously improve the well-being of citizens. The majority of countries have given priority to improving the well-being of the citizen as a whole. It is for this reason that the modernization policy has targeted all sectors, giving priority to education, health, finance, construction and management of infrastructure. The citizen and the business remain the main concerns of this approach.

It is for this reason that specialists regard public service as one of the key factors for the success of reforms and strategies for economic recovery and growth. The world has faced a vast and rich technological development, this change made e-government essential, and had to be imposed radically within the state agencies this necessity requires good planning for the establishment of an effective and efficient system.

#### **3.1. Theoretical pertinence**

The modernization of the public services in Algeria is relatively new, which made its deployment a little bit hard, the infrastructure of the organizational corps are not fully ready for such a change, and the simple citizens who are not fully aware of the benefits they can receive from the use of technologies and are against it which led to delaying the development of e-government.

#### **3.2. Managerial pertinence**

We are willing to deploy the data that can shed light on the general idea of e-government or the modernization of the business sector, the information system process in particular.

In addition to that we are going to emphasize about the impact that this modernization has brought to the information system.

Later on, our study will enhance the idea further with a practical report of the modernization of the trade register and its impact on the information system.

#### **4. dissertation question and hypothesis**

Through this work we try to check if the modernization of the trade register impacted the information system and to understand how the information system is changing when the modernization took place.

This research will try to answer mainly these questions:

Did the digitalization of the trade register help with the improvement of the information system?

This question has secondary questions to help answer the main one:

1. How has the information system changed for both customers and employees?
2. What are the benefits of the modernization of the services provided by the national center of trade register?

The identification of the information system components, and observing the changes that happened to the information system.

Exploring the benefits of the modernization of the services provided by the the national center of the trade register.

#### **5. dissertation outline**

To answer the questions and hypothesis, we stated in chapter one the aim, an explanation of the study and the aim of it, precisising the research question, hypothesis and shedding light on the importance of this study especially nowadays when modernization is the talk of the hour, we try to explain the methodology used, its organization and limits.

In the second chapter we present an overview of the modernization of the trade register and the information system by giving definitions to the key concepts, this will help us understand what modernization is, trade register and information system and their history also applying them in public sector to get a clearer view, with that knowing the barriers they face.

In the third chapter we will present the national center of the trade register, we describe its different departments, missions and activities and understand what changed in the information system when the modernization of trade register occurred.

We finish our work by a conclusion in which we provide answers to the research questions and we give some recommendations to the institute.

## **6. Scope and limits**

The scope of this dissertation is limited to the modernization of the trade register and information system; therefore some departments of the institute are not addressed, also the legal side is not focused on during this research,

It is important, to notice that the result of this research is limited to the context of this specific institute, so it is not suitable to generalize the results with other public institutes.

Due to the covid19 pandemic we couldn't tackle this subject the way we wanted to and see every side of the information system in the administration office of the national center of trade register, and also the lack of previous studies tackled this subject.

## **7. Research methodology**

To achieve the objective of this study we need to identify the components of the information system that changed when modernization of the trade register occurred.

For this, the quantitative approach is more suitable to identify the changes of the components of information system

The case study explains and analyzes the changes of the information system and the impact of the modernization of the trade register on it.

The qualitative approach is used to gather information; it combines three types of qualitative data collection

1. The Interviews were unstructured in which the questions were not prepared but asked after observation.
2. Observation that involved taking notes constantly to identify what the interviews haven't mentioned.
3. Administrative documents that highlight the change when the modernization took place.

In this dissertation, there are three research methodologies; archival, empirical, and analytical, they are used to develop and analyze the information presented in this research.

### **7.1. Archival Research**

For the sake of covering and detailing the literature review of the topic, the archival research was conducted in order to analyze different subjects around the topic: the modernization, the trade register and the information system,

The modernization, trade register and information system were the title of the books used in this research, scientific articles and dissertation.

### **7.2. Empirical Research**

Empirical research was based on data gathering from the different departments of the institute and interviews with managers. Because of the limited number of staff and the accessibility to information, the interviews were done with the managers of 3 different departments of the institute. They involved the manager of Administration and facilities, the manager of legal publicities, the manager of the trade register bureau.

The interviews were held face to face with the concerned managers and the main questions were about the information system before the modernization of the trade register and after, also about the changes that occurred and how did they affect the information system.

### **7.3. Analytical research**

Regarding the analytical research, the goal was essentially to analyze, understand the modernized trade register and the information system of the institute. The objective is to explain the impact of the modernization of the trade register on the information system of the national center of the trade register.

## **Chapter 02: literature review and conceptual framework**

The second chapter is reserved to the literature review relative to the modernization, the trade register and the information system that is a strategic tool to the public sector, also is reserved to the conceptual framework, where we are going to talk about different concepts related to our project.

## **1. Literature review**

The Trade register is defined as: a register managed by the national center of the trade register, it is an official document that allows individuals and legal people, to be able to do commercial activities, it is a confirmation of the capacity of the traders to practice trade with third parties until their register is delisted. (Algeria business and investment opportunities year book volume 1, p.201).

There is another definition to the trade register that focuses more on the people allowed to have a trade register it states that the trade register is an administrative document drawn up by the state, represented by the national center of trade register, on which all the information concerning the merchant, natural or legal person, are registered. In accordance with articles 19 and 20 of the commercial code, persons required to register in the trade register are merchants in general, national or foreigners, natural or legal persons, having a seat, a branch, commercial representation or agency in Algeria. (Notion sur le droit de commerce, P.17).

From the previous definitions of the trade register we note that the trade register is the document that organizes the trade in Algeria according to the law, it is managed by the national center of the trade register.

Public establishments are increasingly affected by the issues of change. Indeed, the modernization of public institutions has become a major issue in public policies today. This objective leads them to move towards the development of partnerships with private companies in many fields. The emergence of public-private partnerships therefore invites us to question the contributions of such a relationship, particularly in terms of organizational performance.

Beyond the analysis of transformations in state regulation, the analysis of the 'modernization' of public enterprises allows us to question the construction of the phenomenon of modernization itself. Indeed, observing as closely as possible the phenomenon of 'modernization' leads sociologists to distrust the presentation given by the modernizers - without adopting a relativist

posture denouncing a sleight of hand only rhetorical. Starting from the idea that it has already happened to “overestimate the ruptures in the modernization processes” (cited in Vezinat, Martin & Boussard, 2015).

The modernizing ambition may take the form of a rationalization of the work activity, an increase in the power of market logic, or even a transformation of the personnel management of these organizations. More often than not, several political and economic logics are behind each case of modernization.

The modernization of public sector is now essential for building a new administration, combining solidarity and competitiveness. We must rethink the role of public authorities. The resources of the State and local authorities must be part of the objective of the modernization. Each ministry elaborated in the past years programs of modernization; the ministry of commerce was one of the first to make an initiative to try and modernize the sector.

One of the services that were modernized by the national center of trade register is the trade register, the model of the extract from the trade register is delivered in electronic format, it was fixed by an executive decree n 18-112 published in the official journal N 21. For this purpose, the text specifies 'that it is inserted on extracts from the register of commerce of traders, natural or legal persons, an electronic code, called the electronic commerce register, adding that the electronic code is a graphic symbol comprising encrypted data and information relating to the merchant. Thus, notes the executive decree, the electronic code, is printed on extracts from the trade register according to specific characteristics, namely: front side, to the right of the upper part of the extract from the trade register, in black on White background surrounded by a black frame. According to this legislative text, the electronic code is read by any device equipped with an image capture device, using an application that can be downloaded free of charge from the electronic portal of the national center of trade register, while the information contained in the code is regularly updated by NCTR services. Furthermore, it is pointed out that any deterioration of the electronic code renders the extract from the trade register obsolete. In this case, the holder of the trade register is required to request a duplicate of the extract from the trade register, with the electronic code. In this wake, traders who do not hold the extract from the trade register, with the electronic code, are called upon to request the modification of their extracts from the trade register, from the branches of the national center of trade register with territorial

jurisdiction, to obtain the electronic code, adds the executive decree, specifying that extracts from the trade register not coated with the electronic code remain valid for a period of one year, from the publication of this executive decree in the official journal.(sidjilcom, 2019)

The public sector has struggled to modernize its infrastructure because of the huge budget and the political refrains, it encounters different challenges facing the private sector from the problems of security to the agility of the private sector in trying new approaches, down to the complexity of the information system in the public administrations and the issues related to its use.

Orman gave a brief yet a clear definition of the IS in the public sector this definition shows that the information system is about sharing the data to the public and exposing it to public use.(Orman, 1989).

SGMAP believes that the information system is the nervous system for the public action, the general secretariat for the modernization of the action Public, ensures that the information systems and communication of the State (IS) help to improve The quality, efficiency and reliability of the service provided to Citizens; In particular, it supports the simplification of Relations between users and administrations. Information and communication systems are Present at all levels of the functioning of the State including National defense, diplomacy, the state budget, etc. They also intervene at any time of exchanges between the citizen and the administration: the start of the school year, the Renewal of identity papers, declarations Tax or the allocation of social assistance. (SGMAP, 2013).

There are many previous studies about the modernization, trade register and information system however there are no studies tackling the impact of modernization of the trade register on the information system and this is our gap that we trying to work on.

## **2. Conceptual Framework**

We divided this chapter into three sections, in the first section we are going to talk about the trade register and its importance, and then we are going to tackle the modernization as a reform of the public sector in the second section, finally in the third chapter we are going to talk about the information system, its components and issues in the public sector.

### **2.1. The Trade register**

#### **2.1.1. History of the trade register**

With the various changes experienced by Algeria in different fields, in response to the requirements of the current period to go to the market economy and the need to introduce changes and new mechanisms on the various national economic sectors and on all structures, in addition to administrative institutions and economic actors, as part of the opening of Algeria on the worldwide market, its membership in WTO, seen the facilitation of the modalities of inclusion in a registry of trade, a door is opened to reception and orientation of the economic operators and creators of firms.

In seen to improve this performance, the national center of the trade register undertook the installation of the direction of council and juridical services, endowed and reinforced by jurists and skilled frames which will accompany the persons (physical or moral) subjected to the inclusion in a registry of trade, throughout steps to be followed from an idea up to the concrete expression of a plan.

Moreover, the same Direction is made responsible for taking care and working out conclusions and requests, in seen to give information and orientations necessary for the resolution of the litigations which are born of reports enter the dealers.

#### **1.1.2 Definition of trade registers**

Trade register is defined as: *“a register maintained by the national center of the trade register, the trade register is a certificate represents an official document enabling any individual or legal person to conduct commercial activities. It is an absolute proof of validity with regard to third parties until it is disputed.”* (Algeria business and investment opportunities year book volume 1, p.201)

the national center of trade register defined the trade register as follows: it is an administrative document drawn up by the State, represented by the national center of trade register, on which all the information concerning the merchant, natural or legal person, are registered.

From these definitions we find that the trade register is the document that organize the trade in Algeria, it is an obligation to have it to be able to practice trade in a legal way. (sidjilcom, 2020).

### **2.1.3. The functions of the trade register**

The trade register is of capital importance, given the functions it fulfills, and which consists of the following:

- The trade register is the main source for obtaining information and merchant information
- The trade register is a means of publishing all the modifications concerning the legal situation of merchants and commercial companies.
- The trade register is a means of ensuring and guaranteeing transparency and confidence in the commercial field, since any modification in the statutes of traders is automatically known to the public and the administration
- The trade register allows the state to have a global overview on the operators economic and commercial, which contributes to the implementation of economic strategies.

In accordance with Articles 19 and 20 of the Commercial Code, persons required to register in the trade register are merchants in general, national or foreigners, natural or legal persons, having a seat, a branch, commercial representation or agency in Algeria. (Notion sur le droit de commerce, P.17).

### **2.1.4. People subjected to register in the trade register**

Under the terms of executive order N 04 that describes the characteristics needed for individuals or companies to have trade register; Any trader, natural or legal person; Any commercial company having its headquarters abroad and which opens in Algeria, an agency, a branch or any other establishment; Any foreign commercial representation exercising a commercial activity on Algerian territory; Any craft business, any service provider, natural or legal person; Any tenant-manager of a business (financial backer).

Also in the case of Minors, we distinguish two types:

- **The emancipated minor**

It concerns the minor who has turned 18, authorized by his father or her mother (if the father is deceased, absent, or deprived of parental authority or unable to exercise it), or authorized by the deliberation of family council approved by the court in the case of the absence of the father and mother. The father or the mother authorization is established in the presence of a notary. On the basis of (father, mother, family council) authorization, the judge issues the act of emancipation required for inscription in the Trade Register.

- **The none-emancipated minor**

The emancipated minor can exercise commerce, if this minor has rights in a company, he must be represented by his legal guardian or testamentary, after obtaining authorization from the judge, the guardian of a non-emancipated minor cannot in this capacity and in no case be a member of the Management and Administrative Bodies or exercise a function conferring on him the status of merchant. (sidjilcom,2019)

### **2.1.5. Types of registration in the trade register**

Under the terms of executive order No 97-41 of 18 January 1997, registrations in the trade and company register are defined as follows:

- **Main registration**

It is the first registration in the trade register, formalized by any economic person, natural or legal person, relating to an economic activity subject to registration in the Trade register.

In practical terms, a basic economic activity is legally represented by a codification corresponding to a wording and content of activity appearing in the nomenclature of economic activities subject to registration in the trade register.

To the exercise of this basic activity, the taxable person may add the exercise of one or more other activities which are entered in the trade register when they are homogeneous with it.

This main or basic registration implies the allocation of a number from the trade register for the entire life of the natural person or the social life of the legal person, in application of the principle of uniqueness of the trade register.

- **Secondary Registration**

Article 7 of the abovementioned executive decree 97-41 defines secondary activity as:

“Any physical facility or economic structure owned by or belonging to any natural or legal person, under his/its control or management and reflecting the core business extension of and/or the exercise of other activities established in the wilaya jurisdiction of the basic establishment and / or in other wilayas”

From this definition it appears that secondary activities are subject to secondary registrations in local registers of their location with reference to the registration of the core business.

Consequently, the secondary registration will be compulsorily registered under the same numbers that assigned to the basic registration, be they done by the same local register or in another wilaya (Trade Register Uniqueness).(Caci,2014).

#### **2.1.6. The modernization of the trade register**

The electronic trade register contains a bar code that includes encrypted information and data of the trader. However the reading of the trade register electronic code is done by any device equipped with an image capture system via an application freely downloaded from the electronic trade register portal, whereas the updating of electronic trade register extract information will be regularly carried out by the national center of the trade register services.

The national center of the trade register informs all traders that any deterioration of the electronic trade register code makes these documents obsolete. In this case the holder of trade register is required to request for a duplicate of the trade register extract endowed with the electronic code (TEC).(sidjilcom,2019).

## **2.2. The Modernization**

### **2.2.1. History of the modernization**

Modernization is a worldwide social movement. It started in the 50's in the west world and gained appreciation of many countries. Modernization did not appear at once, but it appeared gradually throughout the years. Experts explained that the process of modernization of a given society takes a progressive shift at different aspects. First, the economy is a priority when talking about modernization, mainly manufacturing and services. The usage of technology led to the improvement of production and the boost of industrialization which impacted positively on economy. It is of a great importance because it upgraded mass production and the division of labor.

In politics the new system of the government appears to be more effective and efficient while the bureaucratic system started to vanish. When it comes to providing services to the citizens and as a result they became more interactive and interested in political issues; whereas, in modern societies people are judged based on their achievements, abilities and intelligence. Also it became easier to put hands on different types of resources just by communicating. The modern culture made individuals free, motivated, competitive and rational. Modern culture was detached from politics, economy and other fields.

However there are some researchers who criticized the division of “traditions” and “modernity” considering that the theories of modernization were not generalized but focused solely on western world. In the 80's the development of modernization led to its wide expansion to include other countries. (CAO Fangjun, 2009, P. 8-9)

### **2.2.2. Definition of E-government**

For Dempsy the electronic government is the use of ICT to transform the government, making it more accessible to citizens, more efficient and more responsible. This much summarized approach, presents a design particularly of the impact of ICT on the new role condition (accessibility, efficiency and accountability). Accessibility does not mean putting more computers on the desks of civil servants government. It is more interested in relationships between government officials and the citizen. The e-government must allow in first and foremost online (Internet) access to more information such as laws, decrees, circulars, forms

and data economic or scientific. It must also encourage civic engagement by enabling the citizen to interact more conveniently with government officials, consulting and by declaring documents required in a procedure administrative electronically. Finally, this definition stipulates the responsibility for increasing the government makes operations more transparent, ahead of opportunities corruption and allowing small businesses so rural communities have access to more information. (Dempsy, 2003, p. 22)

The World Bank defined the e-government as “The Use of information technology by public bodies (such as WAN networks, Internet and mobile computing) that have the potential to transform relations with citizens, businesses and other branches of government. These technologies can be used for a variety of purposes: better service delivery administrative services to citizens, better interactions with businesses and industries, empowerment of citizens through access to information, or more management efficient administration. The resulting benefits include reduced corruption, increased transparency, more great convenience, increased income and / or reduced costs.” (World Bank, 2012).

For the users, electronic administration means better responsiveness of administration, lower costs and improved quality (Sauret, 2004).

### **2.2.3. Electronic administration success factors**

The main objective of e-administration is to improve administration using ICT. There is a need for an integrated approach to provide services to individuals and businesses. This integrated approach implies a common vision, a transversality of processes and data, and modifications of the administrative system concerning in particular organizational changes, cooperation and collaboration.

- **Vision and political will**

**Leadership and commitment:** Leadership and commitment, at the political and administrative levels, are essential for managing change. It takes committed leaders to deal with disruptive change, persevere when the benefits are slow in coming, react when the going gets tough, and strategize and plan for the future.

**Integration:** E-administration is a means and not an end in itself. It needs to be mainstreamed into broader policy and service delivery goals, broader public management reform processes, and wider information society activities

- **Cooperation and common structures**

**Collaboration between entities:** E-administration is more effective when the agencies collaborate in a transversal way within groupings of organizations focused on the client. Those in charge of organizations must be able to act within common structures in order to ensure interoperability, to maximize efficiency of implementation and avoid duplication. Common infrastructures must be put in place, so as to create a framework for the initiatives of the various organizations. Incentives can help encourage collaboration.

**Funding:** Where appropriate, ICT expenditure should be considered as investment, given the expected results. E-administration implies a degree of certainty about future funding, so as to ensure the stability of projects, avoid waste of resources and make the most of resources. A centrally funded program could help encourage innovation and enable important pilot projects to be carried out. And sometimes the use of a type of financing through a public-private partnership offers.

- **Client orientation**

**Access:** Governments should take measures to improve access to online services. Many of the benefits of government online information and services cannot be offered offline, so those without access will be excluded if action is not taken.

**Choice:** Customers should be able to choose how they interact with government, and adoption of online services should not reduce choice. The principle that there is no wrong door when speaking to the administration should be adopted. Services should be driven by knowing the needs of clients.

**Citizen engagement:** The information and services provided by e-government should be of high quality and involve citizens in the public policy-making process. Measures to ensure the quality of information and feedback mechanisms will help to maximize the usefulness of the information provided and strengthen citizen participation.

**Privacy:** e-administration should not undermine expectations regarding the protection of privacy and should aim to protect the privacy of individuals.

- **Responsibility and transparency**

**Accountability:** e-government can help “open up” administrative and political processes and strengthen the obligation to report. Accountability arrangements should make it clear who is responsible for joint initiatives and projects. Likewise, establishing partnerships with the private sector should not limit accountability.

**Monitoring and evaluation:** Determining the demand, costs, benefits and impacts of e-government is essential if the momentum is to be maintained. Those responsible for implementing this program cannot hope for support unless they are able to clearly state the benefits to be expected. In addition, the key factors developed previously should be broken down into indicators in order to monitor and evaluate the e-administration program.

One cannot envisage such a state reform without providing for effective communication, over the entire duration of the project, close to the field and addressing both public officials and citizens. This element should not be overlooked as it is crucial so that the whole project is understood and that the different actors are involved and can take ownership of it. This communication must be not only top-down, but also participatory so that the program management listens to concerns and suggestions from stakeholders and citizens. (Christine Aïdonidis, Giorgio Pauletto, 2007, p.19-20).

#### **2.2.4. Benefits of modernization of public sector**

E-government contributes to improving the efficiency of administration ICTs, it is needed to boost reforms affecting the operating methods of public administration. The improvement of internal operating systems, financing terms of purchase and payment, internal communications and information exchange - and methods of processing and executing programs can be a factor of efficiency and improve performance.

Raising the quality of services has been at the heart of the reform of public administration over the past two decades and the better functioning of the services provided by the use of ICT has been one of the essential motivations of the efforts in favor of the electronic administration. Thus, recourse to the internet has considerably developed integrated services focused on

customer satisfaction, which aim to break free from the structure of public administration. We also consider in addition that online services are part of a service strategy wider, resulting in significant benefits for users and greater efficiency significantly increased. Since users of public services are often obliged to enter into contact with the administration, their dissatisfaction with the quality of these services can quickly become a major political problem.

ICT can help achieve more convincing results inessential areas of government action, such as health, social protection, security and education. Ultimately, the governments and public administrations are responsible for executing policies and ICT can greatly facilitate this task in all major areas of intervention.

An improvement in governance arrangements will in itself favor the achievement of the economic objectives of the public authorities. More concretely, the consequences could be felt on the production ICT, the spread of electronic commerce and the productivity of companies and, indirectly, on tax needs, which should decrease thanks to the increased effectiveness of programs and productivity irrigating the economy as a whole.

E-government can help advance the program of reforms. Articulated with modernization objectives, the establishment of e-government can help administrations focus their efforts on other changes needed to meet the challenges posed by satisfaction with services and the practice of good governance. Same time, it provides valuable instruments of reform and mobilizes the high officials and employees of administrations in favor of the achievement of these goals.

Through citizen engagement, e-government can improve the general relationship of trust between the government and public administrations. Because it promotes the flow of information and encourages the active participation of citizens, the administration electronics is increasingly seen as a valuable tool for building trust between administrations and citizens. Achieving these objectives may involve making trade-offs between efficiency and effectiveness, efficiency and openness, accountability and satisfaction users. When this is the case, we must set priorities, but we must not assume that such trade-offs are inevitable. Several Nordic countries have set up specific bodies (ombudsmen) to deal with complaints from citizens regarding the protection of privacy and trust, to the benefit of both the protection of privacy and the use of data. (OCDE, 2004, P.38-39).

**Figure 2.1: advantages of electronic government.**



**Source: W.wirtz&Daiser, 2015, p. 6**

### **2.2.5. The tools and challenges of modernization in public sector**

The emergence and development of information and communication technologies considered as favorable elements for growth and for employment have largely contributed to the modernization of the administration and take their place in the reform of the State.

The adoption of digital technologies within the administration has now already initiated deep evolutions, in its relations with the citizens and also in its own organization.

- **Decompartmentalized establishment of relations with users**

Going beyond the sectoral approach, the administration - traditionally compartmentalized - now favors a transversal vision in its relations with users. Online publication of certain essential information held by the administration is fueling new spaces for debate and reflection.

The progressive and systematic dematerialization of administrative procedures makes life easier for citizens by enabling them to reduce physical displacement and the wait, now unavoidable, to obtain administrative documents.

- **Organize internal networks**

By hierarchical nature, the administration evolves towards a network organization ICT has three important consequences on the organization of the administration:

They speed up the decision-making process and challenge traditional customs; they cause a rapid evolution of administrative tasks by eliminating the most repetitive and the least rewarding and they strengthen the autonomy of agents and allow performance to be revealed and the added value of everyone in the same team.

This modernization of public services by the transition to e-administration must lead to a reflection on the impacts in terms of investment and cost.

- **Generate productivity gains**

Indeed, the establishment of an electronic administration requires Expenses related to equipment (purchase of computer, production of content, computer connections, etc.), adaptation of qualifications and skills All staff and the need to guarantee the principle of equal access and continuity of public services. However, the adoption of information and communication

technologies must allow better optimization of spending and increase the productivity of public services.

The success of putting the administration online requires new information systems necessary to assess the results and costs of public policies.

The modernization of public management is a long-term task, the Path is not linear. Behind the technical challenges, digitization Participates in driving change. It imposes ambition, duration and vision Strategic. (Publication de l'IGPDE, 2002, P.1).

#### **2.2.6. Barriers of digital modernization of the public administration system**

In modern days the merge of technology in public sector is a major obligation it includes the use of “artificial intelligence”, “big data” and “block chain” which led to an immense development of technology but along with that came the barriers and difficulties whether because of physical obstacles or the doubt and lack of knowledge of individuals towards the new technologies and the cultural resistance. All the sectors are affected by new technologies back in the day the obstacles were more about the availability of devices and the access to the internet but nowadays those obstacles were removed kind of and new ones emerged such as the agility of devices and the skills needed to deal with the later, the table below display some of the barriers related to the accessibility of the supplies or competences.( Ziyadin, Malayev & Fernández &Ismail, 2020, P.6-7).

**Table 2.1: explains the different barriers that affect the modernization of public sector**

Barriers	Description
Access	It starts with access or the lack thereof: although Internet penetration has increased, it continues to be a key barrier, as more people globally remain offline rather than online.
Affordability	The gap between rich and poor affects the affordability of ICT and is an important indicator that shows the difference in technology adoption between regions within a country and between countries.
Age	Older people are generally using ICTs to a lesser extent than younger populations, despite the notion that they could benefit from online social and health services.
Bandwidth	International bandwidth and the ability to transmit and receive information over networks vary greatly from country to country and from region to region, thus limiting potential useful ventures.
Content	Appropriate resources in the local language(s) are needed to encourage implementation
Disability	Individuals with disabilities face additional barriers when using ICT if websites do not follow accessibility guidelines.
Education	Like social inequalities, education and literacy are among the fundamental issues that need to be addressed to overcome digital divides.
Gender	There is a small but persistent difference in internet usage between men and women
Migration	The level of digital skills of migrants may lag behind the population in their new country and, if so, resource- and language-based divisions may arise.
Location	Rural and remote areas are often at a disadvantage in terms of speed and quality of services compared to their urban counterparts.
Mobile	Mobile devices can bridge the access gap, but can also create new barriers in terms of technology, speed and usage
Speed	The gap between basic and broadband access creates a new barrier, as speed is important to get all the benefits of the digital society
Useful usage	What people do with their access is a key difference in whether users take full advantage of ICT, such as e-government services.

**Source: digital modernization of the system of public administration: prerogatives and barriers, 2020, P. 7**

## 2.3. Information system

### 2.3.1. Global definition of the information system

The definition of the information system *“Information system has been defined in terms of two perspectives: one relating to its function; the other relating to its structure. From a functional perspective; an information system is a technologically implemented medium for the purpose of recording, storing, and disseminating linguistic expressions as well as for the supporting of inference making. From a structural perspective; an information system consists of a collection of people, processes, data, models, technology and partly formalized language, forming a cohesive structure which serves some organizational purpose or function.”*(Management Information Systems (MIS) 2011/2012, P24)

Sylvie SERVIGNE defined information system as follows:

The information system is today a central element in the functioning of an organization. An information system can be defined as a set of resources (personnel, software, processes, data, hardware, IT and telecommunications equipment, etc.) allowing the collection, storage, structuring, modeling, management, Manipulation, analysis, transport, exchange and dissemination of information (texts, images, sounds, video ...) within an organization. IT resources include, in particular, data files, databases and database management systems (DBMS), integrated management software packages (ERP: enterprise resource planning), client management tools (CRM: customer relationship management), the supply chain (SCM: supply chain management) or collaborators (ERM: employee relationship management), collaborative work tools (groupware), business applications, application servers or Presentation (Web ...), workflow systems, integration architectures (EAI: enterprise architecture integration, SOA: services oriented architecture), network infrastructures.(Sylvie, 2010, p.1).

These definitions show how complex and vast the information system is and how important it is to help decision making. While Reix gave a brief definition to information system as an organized set of Resources: hardware, software, personnel, data, procedures enabling to acquire, process, store information (in the form of data, Texts, images, sound, etc.) in and between organizations. Reix (2004).

This definition clarifies the main functions of information system as acquiring, processing and storing information.

### 2.3.2. Information system in public sector

Orman gave a simple yet a clear definition to information system in public sector “*systems designed for use by the general public, rather than specialists in a particular field or organization*” (Orman, 1989).

We don't find many academic definitions to the information system but some define it as a tool that is intended for use by the public.

### 2.3.3. Components of information system

**Table 2.2: components of information systems**

Components	Definition
<b>People resources</b>	We distinguish two types of people resources: <b>End users:</b> they are the ones who use the information systems and is provided to them. <b>Information system specialists:</b> they are the people who produce and establish information systems; it contains system analysts, programmers and computer operators
<b>Hardware resources</b>	We distinguish two types of people resources: <b>Machines:</b> the object in which data is stored and reviewed. <b>Computer systems:</b> they are the external devices, like microcomputer systems and large computer systems
<b>Software resources</b>	They are the way the information is processed; they don't contain solely the programs but also the procedures in which the information is treated.
<b>Data</b>	It contains data which is the raw material of information systems and data base, data can take lots of patterns like texts, images and audio, there are lots of standards when it comes to data resources which are: <b>Comprehensiveness:</b> all the data about a certain subject must exist in present in data bases. <b>Non-redundancy:</b> there must be no several copies of the same subject in the data base. <b>Appropriate structure:</b> the data is stored in a structured and an organized way to make the storage less expensive. <b>Network Resources:</b> the internet, extranet and intranets are a necessity to make fruitful operations in information system.

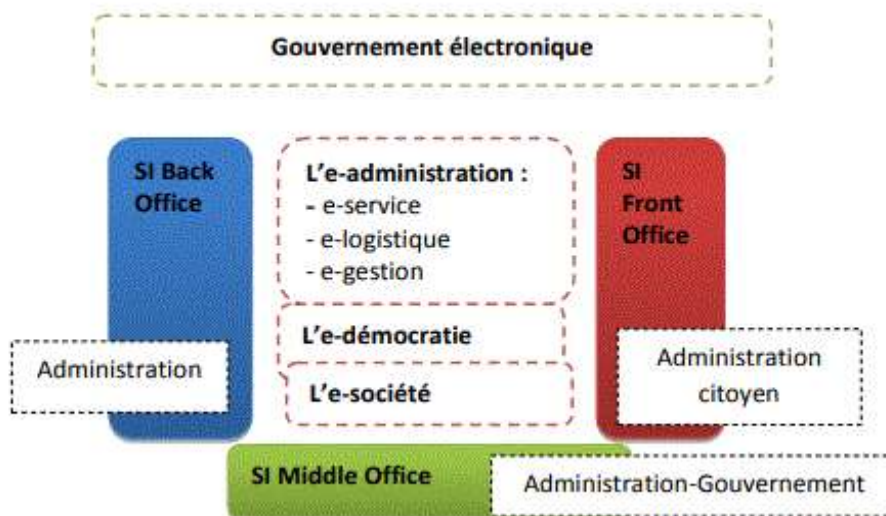
Source: management information system (mis) 2011/2012, p.26-27-28

#### 2.3.4. The domains of the information system in the public sector

Indeed, e-administration is based on a set of IS, we can thus imagine IS dedicated to e-service, IS dedicated to e-logistics and IS dedicated to e-management, then IS geared towards e-democracy and IS devoted to e-society. Of course, we cannot limit PISs to these only categories cited, because the boundaries between the three e-government domains are not clearly established, there are many PISs that register in e-government, but information systems remain a set of technical and organizational solutions that can belong to one of the following categories:

- **I.S front office:** (Administration-Citizen interface) According to D. Gerbod and F. Paquet, the e-administration model originates from the industry private, according to this model the front office is the visible part of the electronic government which is based on web technology.
- **I.S back office:** (internal functioning of each Administration) this is the computerized processes of the back office of public organizations. They aim for modernization and performance administration and are made up of several systems such as information system human resources, decisional information systems, workflows, etc.
- **I.S middle office:** (Contacts between Administrations and Government) this is the "intermediate information system", or the system of "inter-organizational" information, its function is particular to support "the automated exchange of information between separate organizations". (Reix2004, p.29).

**Figure 2.2: the placement of IS in e-government**



Source: la crise d'identité des systèmes d'information du secteur public

### 2.3.5. Issues and problems specific to the information systems of the public sector

Beyond the general issues of the IS, in particular the delimitation of the boundaries between the IS management tools on the one hand and the IS as an object to be managed on the other hand (Reix, 1990), and the issue of control of the IT life cycle (design, development, implementation maintenance). There are issues and challenges which are specific to IT applied in the public sector, we quote: the governance of PISs, transposition of sector management practices private, the maturity of e-government, the imperative of interoperability and pooling of PISs.

- **The governance of PISs**

Researchers who confirm the existence of a difference between the SI public and private also argue that there are differences between the governance of ICT respectively in the sectors public and private. Bozeman and Bretschneider (1986) remain the first and only who hypothesized that given the defined differences between the public and private sectors, ISs in both sectors need different principles for the management and governance of systems of information. C. Aïdonidis and G. Pauletto add to this problem of governance of e-government two constraints: the first is linked to the difficulty of strategic management of e-administration and the second concerns the management of transparency and traceability in administration.

- **The transposition of private sector management practices**

As part of the new public management, public organizations are called upon to improve their administrative processes and organizational structures by borrowing from private sector its management methods and models; however, few those who support an outright alignment of the state on the model The public specializing in administration and management has been skeptical of such an approach. Empirical studies have shown that the plain replication of concepts and practices from the private sector to public sector has not always yielded "good" results. According to this reason, the differences between sectors must be considered in the as part of this transfer of practices during systems management public information. (Cited in Farah, 2014, P.181).

### **2.3.6. Stakes of PIS**

PIS is exposed to several challenges specific to its deployment in the public sector, thus these systems are dependent on the degree of maturity of e-government as well as the imperative of pooling and technical development promoting the interoperability of these systems between several organizations.

- **The maturity of e-government**

For C. Aïdonidis and G. Pauletto, e-administration presents a complexity that did not characterize most IT projects implemented in place so far. He explains that three factors act on this complexity observed: first, e-administration is characterized by a great impact on the structures of the administration, then we must admit that it exceeds largely the purely technological framework due in particular to the very strong that it maintains both with the citizen and with society. And finally, the fact that its specificities are not yet all defined increases the difficulty of mastering this innovation. Thus, the success of the government depends on the maturity of the use (accessibility, security and protection of personal data), legal maturity and the maturity of the administration itself.

- **Interoperability**

The interoperability of public information systems is a need that takes on its full meaning and value in the definition of services integrated publics involved different public entities independent horizontally and vertically, in order to common achievements of each. In addition to addressing a risk of communication between the different administrative entities, interoperability by virtue of its participatory nature, it promotes pooling and reuse of resources and thus has other advantages in terms of economic and social aspects of ICT in PAs.

- **Pooling of PISs**

Pooling in the public sector is all the actions making it possible to share and exchange know-how, data, human skills, and the exchange of experiences while avoiding recurring developments of sources as well as unnecessary expenses. It thus aims to strengthen digital solidarity between administrations and this in order to optimize public spending and generalize adherence to the ICT in all public bodies and accelerate the achievement of ICT programs. Nevertheless, Landsbergen and Wolken have identified categories of political obstacles; technical economic and organizational, which can hamper the implementation of pooling. (Cited in Farah, 2014, P.182).

## **Conclusion**

Many authors and researchers have tackled the information system in the private sector and the impact of IT modernization on it, however not many conducted researches about that specific subject in the public sector, in our study the aim was shedding light on the information system and the modernization of the trade register,

In this humble work we are going to focalize on the modernization of public services, the trade register, and the information system, like we have seen the modernization of the public sector, the so called the electronic government is a mean and not a finality, It demands huge political efforts and a great IT infrastructure, which would lead to many advantages to both citizens and the government itself.

## **Chapter 03: results and discussion**

In this chapter we are going to talk about the changes that occurred to the branch of the national center of the trade register in Djelfa city when the modernization of the trade register occurred and the results of that on the information system, we focalized on the two main new portals of the national center of the trade register since the branch is small and not many information can be retrieved unless we talk on the national basis, those two portals helped storing, processing and defusing information to both users and workers. In the end of this chapter we are going to discuss the results obtained.

## **1. Organizational context of the national center of the trade register**

The national center of the trade register is a public establishment created by decree 63-249 of July 10, 1963 under the initial name of the national industrial property office, which took the name of national center of the trade register by decree 73-188 of November 21, 1973 as Area of competence centralization of the Trade Register issued by the Courts' offices. The National Center of the Trade Register is an autonomous administrative institution placed under the aegis of the Minister of Commerce since March 1997.

### **1.1. Missions of national center of the trade register**

Under the terms of the legal provisions in force, the Establishment is responsible for:

- Take charge of the maintenance of the trade register, ensure compliance by taxable persons with the obligations regarding registration in the trade register and organize the practical arrangements relating to these operations, in accordance with the laws and regulations in force
- Organize all mandatory legal publications to inform third parties of the various changes that occur in the legal situation of traders and businesses, the powers of the administrative and management bodies;
- Keep the public register of sales and / or pledges of business assets as well as the register of pledges of tools and equipment;
- Maintain the public register of movable property leasing related to movable property and goodwill.

## **1.2. Presentation of the different structures of the National center of the trade registers**

The internal organization of the National Center of the Trade Register, presented in the diagram below, is defined by the order of the minister of commerce dated July 28, 2005. **General Management:** Chaired by the general director and assisted by a Deputy Director General; the GD's mission is to propose and submit to execution programs of activities which result in:

- The development of the establishment's action plans and implementation reports.
- Determining short-term and long-term goals.
- The development and implementation of management systems and procedures, in collaboration with the structures concerned.

### **1.2.1. Directorate of the Trade Register**

Is responsible for:

- Keeping and managing the trade register and the nomenclature of economic activities subject to registration in the trade register;
- Contributing to the development of legislative and regulatory texts relating to the trade register and the classification of economic activities and to monitor their application and implementation;
- Ensuring that the local branches at the NRC comply with the applicable legislation on trade registers;
- Taking charge of the digitization of registration files in the trade register;

It is subdivided into two (02) sub-directorates:

- Under the direction of the trade register, the nomenclature of economic activities and prior research.
- Sub-direction of electronic document management and scheduling.

### **1.2.2. Legal Advertising Department**

Is responsible for:

- Managing the entire area relating to legal advertising;
- Editing the official bulletin of legal announcements and oversee its promotion and dissemination;

- Ensuring the printing of official documents and any other publication relating to the trade register;
- Organizing documentation within the center;
- Ensuring the conservation and management of archives;

It is subdivided into three (03) sub-directorates:

- The editor of the publication;
- The translation and documentation department;
- The printing department

### **1.2.3. The Department of Finance and Resources**

Is responsible for:

- Developing and executing operations and equipment budgets;
- Evaluating needs and managing material resources and equipment;
- Ensuring the management of the center's heritage

It is subdivided into three (03) sub-directorates:

- A means department.
- A finance and accounts department.
- Investing department

### **1.2.4. Human Resources Department**

- Defining, proposing and implementing the employment, recruitment and training policy.
- Ensuring the application of the regulations in force in terms of labor relations;
- Ensuring the management of personnel careers;

It includes two (02) sub-directorates:

- Management of staff
- The training and development department

### **1.2.5. IT Services Department**

Is responsible for:

- Formulating the center's objectives in terms of drawing up IT development plans;

- Managing the system and ensuring that all statistical information available to third parties is made available at the level of the national center of the trade register;
- Providing technical assistance to the various central and local structures of the center;
- Adapting the NCTR computer system to information and communication technologies (ICT);

It includes three (03) sub-directorates:

- The IT studies and monitoring department;
- The networks and maintenance department;
- The statistics department.

#### **1.2.6. Directorate of Counsel and Legal Services**

Is responsible for:

- Assisting and advise economic operators and business creators;
- Organizing the handling and processing of any dispute internal to the establishment or between the national center of the trade register and third parties;
- Develop internal working procedures and contribute to the development of internal agreements.

It includes three (03) sub-directorates:

- Under the direction of legal counsel
- The litigation department
- The management of the organization of services

#### **1.2.7. Information and Communication Directorate**

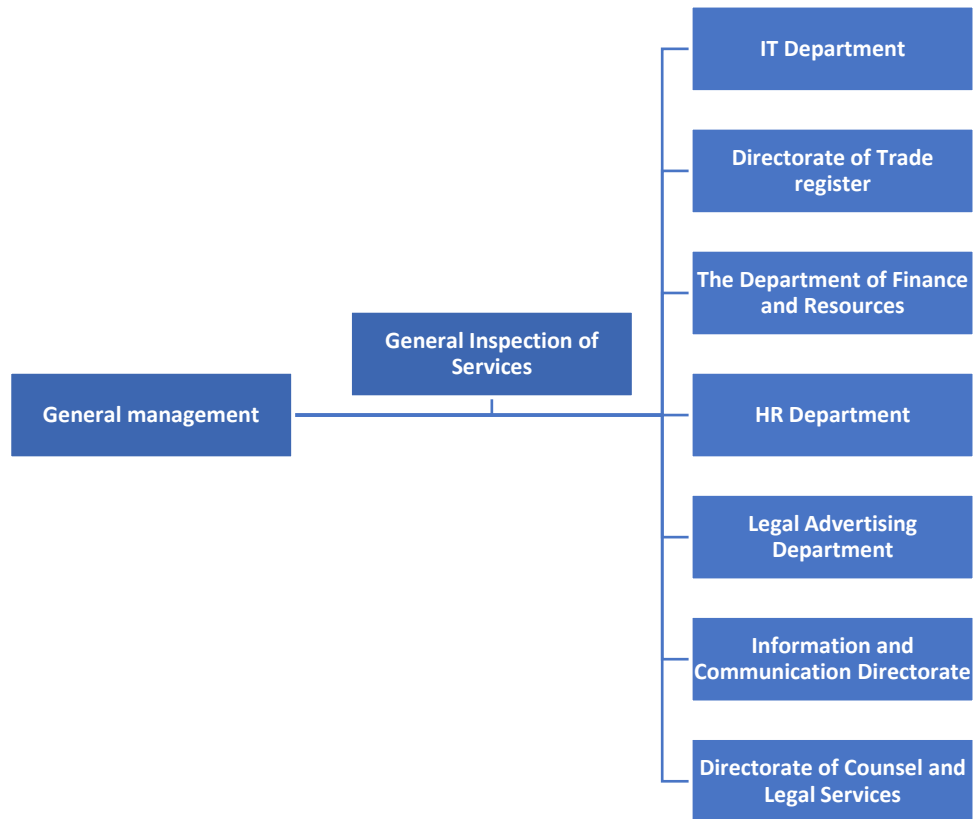
Is responsible for:

- Using and analyzing statistical data for the purpose of preparing reports in connection with the evolution of the economic and commercial sphere;
- Disseminating commercial information;
- Establishing cooperation relations and intra and inter sectoral collaboration, in matters of trade register.

It includes two (02) sub-directorates:

- The information department
- The communication department

**Figure 3.1: Organizational chart that presents the national centre of the trade register**



**Figure made by the researcher**

### 1.2.8. Local branches

The national center of the trade register is represented by a local branch in each county town of the wilaya. This local structure is responsible:

- Receiving and checking the validity of applications for registration, modification and deletion from the Trade Register and the filing of company deeds;
- Issuing the registration extracts for the RC;
- keeping the local trade register;

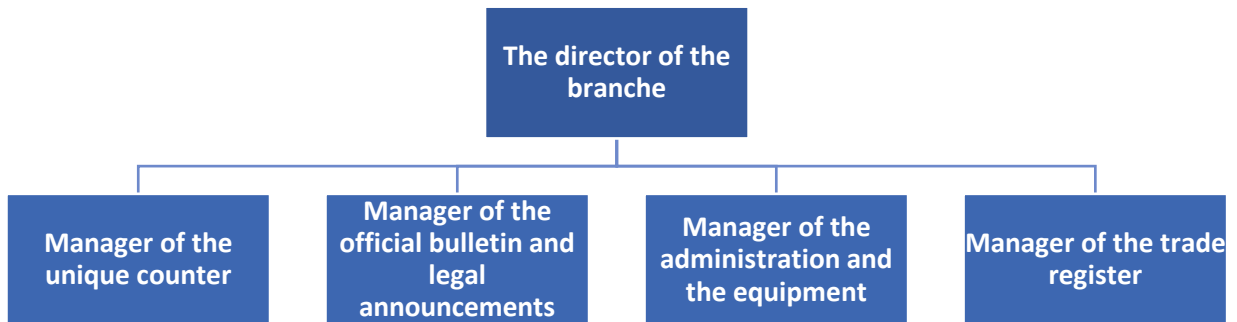
- keeping the public register of sales and pledges of business assets and pledges of tools and equipment;
- registering bay credit contracts;
- Receiving legal announcements;
- Issuing all documents relating to the management of the trade register; the local branch is managed by an officer who has the status of public officer, auxiliary of justice.

### **1.2.9. General Inspection of Services**

This structure is managed by a general inspector placed under the authority of the general director and the General inspection of services is charged of:

- Completing all preventive interventions aiming to the find solution for failures in the organization and functioning of central and local services.
- Undertaking all investigations and controls relating to the verification of the conditions of application of the laws and regulations in force, as well as the respect of the guidelines and directives of the General Directorate. In this context and on the basis of the data collected, the general inspection proposes to the general director of the NCTR all sanctions that can be applied.
- Evaluating the social situation of the Center workers, to draw up periodic synthesis reports and to intervene, within the framework of the regulations in force, in the settlement of disputes, if necessary.
- Carrying out in-depth investigations of specific nature which may be entrusted by the General Director, and to submit the conclusions accompanied by proposals for measures to be taken.
- Forwarding and control the functioning of the NCTR local offices and the representatives at the counters of the National Agency for Investment Development (NADI )

**Figure 3.2: Djelfa's branch organizational chart**



**Figure made by the researcher**

The interviews were conducted with the three main managers of the national center of the trade register, the manager of the unique counter works for another bureau and not within the national center of the trade register.

**Table 3.1: the quality of the interviewers**

Direction	Gender	Function	Post occupied since	Duration
Manager of the administration and the equipment	Male	Head manager	2010	40 minutes
Manager of the official bulletin and legal announcements	male	Head manager	2009	100 minutes
Manager of the trade register	male	Head manager	1988	80 minutes

**Table made by the researcher**

## **2. The external portal “sidjilcom”**

After my interview with the head manager of the official bulletin and legal announcements we came up with this information about the external portal that is provided for both users and workers of the national center of the trade register.

The national center for commercial registry provides users with a set of services at the level of its Internet portal in order to prove its role as a modern administration that keeps pace with the progress approach. In which we find free services, Paid services and services for professionals.

For the free services the trade register provides a set of services to obtain updated, free and legally correct information about merchants and commercial companies.

These services are obtained freely, and different users can benefit from them, without any obligation.

- Determining the location of the merchant or company.
- Choosing the activity in the business blog.
- Determining the name of the company under incorporation;

- Verifying the financial position of the companies.
- Obtaining statistics.

This first level is provided free of charge to users, and provides brief information to initiate an investigation into a company or dealer. Access to detailed information requires a subscription

For the paid services: To obtain detailed information, users are required to "create an account" on the commercial registry portal, in order to benefit from viewing the details, in addition to the free services designated for users.

After subscribing to the portal, the user benefits from a secure space that allows him to obtain detailed information, in addition to that he can perform searches at the level of (merchant card, economic activities code subject to registration in the trade register, social accounts and the official bulletin of legal announcements) and other services On-line means: reserve a label, request copies of files, request a database CD, and finally manage his own account.

This category of services is intended for administrations and institutions: ministries, state directorates of commerce, state departments, municipalities, the national Bureau of Statistics, and professionals such as lawyers, notaries, as well as the center's partners. The process of registration and operation of the services is done by the administrator of the portal. The private subscriber benefits from all the services available on the portal, whether they are free or paid.

Details of the services provided to the administrations are detailed at the level of the paragraph "our subscribers" and those related to the notaries at the level of the paragraph "the documentary space". The services provided to notaries allow them to perform a set of documentation procedures related to the commercial registry online. The portal facilitates procedures and stimulates the process of establishing companies. Notaries have a dedicated workspace on the portal to safely perform some legal formalities from their offices, it relates to:

Inclusion of legal bulletins for establishing, amending and dissolving commercial companies' contracts, selling and mortgaging the commercial base, consult the official bulletin of legal announcements, Deposit social accounts, Register the designations.

Subscribing to "sidjilcom" is considered a privilege that gives the subscriber the right to obtain legal information regarding institutions located in Algeria. The subscription process is done in

exchange for paying an applicable tariff when registering the request, in accordance with the methods stipulated in the address for subscriptions on the portal. The subscription is personal, individual and cannot be transferred to others.

**Table 3.2: provides the subscription formats of “sidjilcom” portal**

<b>Unitary package offers</b>	Allows use of a user account with access to one type of search. Either merchants list, economic activities code, or designations, official bulletin of legal announcements. Subscription equals 3000 AD / year.
<b>A set of basic offers</b>	Allows using a user account with access to four (04) types of searches (merchants list, economic activities code, names and official bulletin of legal announcements). The amount of the subscription is estimated at 5000 AD / every six months, or 9000 AD / annually.
<b>A complete set of offers</b>	Allows using five user accounts with unlimited access to search all databases available on the portal (merchants list, economic activities code, designations, official bulletin of legal announcements and social accounts). The subscription amount is estimated at 20,000 AD/ every six, or 36,000 AD / year.

**Table made by the researcher**

Any natural or legal person wishing to access the "sidjilcom" portal of the national commercial registry can subscribe to obtain information and benefit from various online services. Exempt from this procedure are the interests of public administration, public bodies and institutions of a non-commercial nature, security services and judicial authorities. The practical way to materialize this subscription is:

Registering in the "sidjilcom" portal to obtain an account or proof, if the person concerned has an account. They choose a package of offers and fill out the subscription form, then pay subscription fees and activate the account; this procedure concerns the natural or legal persons who reside in their place of residence or social headquarters in Algeria. Subscription fees are paid in Algerian dinars.

People who are interested can do this according to the following two approaches:

- **Online subscription and payment**

This approach is intended for users who have a payment card and who wish to pay online. The “subscription” process is done entirely online via the “sidjilcom” portal, under the heading “Subscription”. The subscriber directly from his office writes his request, makes the payment and activates his account without the need to move.

- **Subscription and activation at the level of the National Commercial Registry**

This approach is for people who process the payment according to the classic methods: bank payment or postal checking account, check. The concerned person must go to the headquarters of the general directorate of the national center for commercial registry or the local branch closest to his place of residence to verify his participation and activate his account.

In the framework of facilitating administrative procedures and in order to bring the administration closer to the citizen, the national center for commercial registry started on, 02 April 2018, the official launch of an on-line service to obtain priority search certificates, this service is called “certificate”.

Certificate is considered a fast, reliable and secure service that allows obtaining various certificates, and it is related to:

- Label Certificate;
- Certificate of non-registration in the commercial registry;
- Certificate of registration in the commercial registry;
- Deletion certificate from the commercial registry;
- Certificate of non-registration in the commercial registry;
- Certificate of non-deposit of social accounts;
- A copy of the social account deposit certificate.

The holders of bank cards can obtain these certificates through the "sidjilcom" portal, at any time 7/7 days and 24/24 hours, without the hassle of moving to the national center for trade register. This new payment formula is added to the long list of modernized services that have been previously embodied by the national center for commercial registry such as: electronic commercial registry, online appointment booking, and online subscription

## **2.1. Appointment system**

It is a new quality that was added recently within the national center of the trade register, where traders can access to “sidjilcom” and ask for an appointment on a specific day and hour, this feature is important for the users of the national center of the trade register because it reduces the time of wait.

During my interview with the head manager of the trade register we discussed the application portal which is a new, it is part of the modernization of the trade register, and it is an internal portal that gathered the previous software’s used in one main portal

## **3. The application portal**

It is an internal application that provides the majority of the services at the local branches, it replaced three other applications.

### **3.1. Sidjil**

Is a Module for managing entries in the trade register at the level of a local national center of trade register branch for individuals and legal entities.

It offers functions for editing extracts from the trade register, drawing up certificates, calculating statistics, searching it used to be divided into three software’s PDCOM, SIDJILCOM, FORMER SIDJIL, now it is an icon in the application portal.

- PDCOM: was on a national level where the updates took up to 7 days it created many problems because a person could open different main trade registers in different wilayas without the branches of the national center of trade register knowing.
- SIDJILCOM: it is a local application, where only research and screen shots were made
- FORMER SIDJIL: it contained old register from the year of 1997 and before it was used just to search for information about old registers

### **3.2. Denomination**

Is a module for registering trade names and company names of economic operators. Before the modernization of the trade register it used to be done in the general direction in Algiers and it took time to be allocated a name after searching first if the name wasn’t used before in other businesses

### **3.3. The bills**

Is a Billing module for the national center of the trade register services it concerns the official bulletin of legal announcements, translation, and the search for precedents, the communication of information and statistics and pledge. Before the modernization making bills in local branches, this operation did not exist in the branches of the national center of the trade register.

### **3.4. E-supplier**

E-supplier domain name registration module, it is a new quality dedicated for e-commerce activities.

### **3.5. Acts**

Is a module for managing the legal deposit of deeds of incorporation, modification and dissolution of companies. The operations of deposit of acts are carried out upstream of the entries in the register of commerce. Before the modernization it was done manually after searching in old files and the writing could take days

### **3.6. Rahne**

Is a module for managing collateral deeds at the level of the local branches of the national center of trade register by keeping the public register of sales of business assets and pledging of tools and equipment or business assets.

### **3.7. Accounts**

Is a module for managing the legal deposit of company accounts and building up the database.

### **3.8. Chahada**

Is a module for processing prior searches with a view to issuing certificates of registration, cancellation, and the non-registration in the trade register. Before the modernization of the trade register, Rahne, Accounts and Chahada were done after searching in piles of documents which were written manually.

### 3.9. NEA

Is a module for consultation and editing of the nomenclature of economic activities submitted, registration in the trade register in Arabic and French. It was delivered from the general direction in Algiers; it was a book that contains all the codes of the commercial activities from 1 to 7 each code contains many sub codes and workers used to search for the adequate code to each trader

**Table 3.3: explains the different codes of commerce**

Code number 1	allocated to production of all kind
Code number 2	allocated to artisanal work
Code number 3	Allocated to gross merchandising
Code number 4	Allocated to importing
Code number 5	Allocated to retailing
Code number 6	Allocated to services of all types
Code number 7	Allocated to exporting

### 3.10. The official bulletin of legal announcements

Is a Database management module official bulletin of legal announcements. It offers features for programming bulletins, indexing and multi-section search with the possibility of exporting to pdf and excel. The documents and social accounts used to be sent to the general management in Algiers, it took great time, and the head quart in Algiers assembles the documents of all the branches then sends back a book that contains the change that happened to companies in a specific period of time

### 3.11. Research

Multi-criteria search module in the database of the trade register which allows reconstituting the history of trader's registrations. We should mention that when conduction a research we get different layers of information and search in different criteria year of birth, name family name,

name of parents, name of business, the year the business started or by cities. Before this portal, research was conducted by going through different documents in order to obtain information.

After my interview with the head manager of the administration and equipment who is my supervisor at the local branch of the national center of the trade register, we talked about what changed in the equipment when the modernization took place: they got new pc's 7 generation all in one in every office after there were a penury in these devices, they contain the latest software, new devices for payment with cards, after there were no such a thing, they brought new barcodes reader in order to read the electronic code implemented in the new trade registers. Internet has a better debit to help improve the flow of information that was in terms of equipment.

Also there was collaboration between the national center of the trade register and the ministry of justice to obtain information about users automatically, the users does not have to deliver any papers from the courts.

## **Conclusion**

The national center of the trade register knew an obvious modernization; it depends on two main portals "sidjilcom" and the application portal that were very beneficial to both customers and workers of the national center of the trade register, the dependence on the electronic payment and some online services made the information more accurate and faster so that the decision making has improved.

## **General Conclusion**

The modernization of the public services has many benefits to companies, taxpayers and the government itself. The research parts helped us to define key concepts related to our project and also determine each concept and link each one to the public sector, but we found out that there is a gap when it comes to linking the modernization, the trade register and the information system.

The modernization of the trade register has positively impacted the information system through the digitalization of the services provided by the national center of the trade register such as electronic payment the convention with notaries and ministry of justice along with the online services that were launched recently. The national center of the trade Register affirms its intention to contribute effectively to improving the business climate in Algeria and to embody the strategic objectives set by the public authorities but some obstacles still faces the national center of the trade register such as the dependence on paper documents. The lack of awareness among customers to the use of the portal along with electronic payment, when the application site is under construction, it stops functioning for the local branches. The center still has archives which mean that there is still paper work, so it didn't reach to e-government yet. There are still operations that are made manually which take time, efforts and mistakes may occur. The constant disturbance of the internet is an issue that the national center of the trade register workers faces, The workers are not fully aware of the use of the portal and there is a lack of users awareness when it comes to electronic services and electronic payments.

### **Suggestions and solutions**

Electronic payment should be a must, to reduce paper work issues.

The abandon of paper work and the use of scanners to scan all the documents and upload them to the servers directly without sending them to the head quart for that operation

There should be campaign to raise awareness to the use of electronic services

The improvements of the portal should be done on weekends so it works fine in business days.

Internet should be more stable so operations can be done immediately.

Provide more training to the workers to learn all the qualities of the portals.

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**Appendix A: the application and  
“sidjilcom” portals and the trade register**

## 1. The application portal

Centre National du Registre de Commerce

**CNRC**

Portail Applicatif

Déconnexion

Arabe

[SIDJIL](#)
[DENOM](#)
[FACTURE](#)
[E-FOURNISSEUR](#)
[RECHERCHES](#)

[ACTES](#)
[RAHNE](#)
[COMPTE](#)

[CHAHADA](#)
[EXTRACT](#)
[BOAL](#)

[NAE](#)
[GES](#)
[ADMIN](#)

Préférences »

Powered by In3t Agence

Tous droits réservés CENTRE NATIONAL DU REGISTRE DU COMMERCE

**E-FOURNISSEUR**  
Module d'enregistrement des noms de domaines des e-fournisseurs (personnes physiques, personnes morales et Artisans).

## 2. “Sidjilcom” portal

République Algérienne Démocratique et Populaire  
 Département de Commerce  
 National Center for Commercial Register

Welcome to the CNRC portal

[Home](#) [Become a member](#) [About the CNRC](#) [Services provided](#) [Guide of formalities](#) [Help](#) [Subscription](#) [Contact us](#) [Downloads](#)

# Subscribe to SIDJILCOM Portal

Starting from 2017

Online credit account  
 DEPOT COMPTES SOCIAUX

**NEWS**  
**02 vom 0000**  
**Notice of provisional event of the consultation of 02 vom 0000**  
 In accordance with the CNRC manual of administrative procedures in matter of placing plans that the amount is less than the theoretical limit for the award of public contracts the national center of the state register informs of tenders who have participated in the consultation n°02 vom0000, dated 19/07/2016 concerning to the purchase and the delivery of lots of 1157, after supplies, lot n°

**OUR SERVICES**  
**Our subscriptions**  
 The registration opens on the CNRC portal from different online services and they can access to Data Bank of the CNRC.

**Space for entry**  
 Space reserved for visitors to carry out legal publicity and to interact a company items.

**Post your question**  
 This space is reserved for treatment of requests originating from institutions, administrations, subscribers and general public.

**Making an appointment**  
 Give date to making an appointment for all services linked to your trade register.

**4BEP Space**  
 This space is reserved for banks and financial institutions.

**Downloads**  
 Allows different contributions without charge.

**STATISTIQUES**

Did you find any difficulties in using the filing company's accounts online service?

Vote		%	
1	yes	127	56%
1	No	94	29%
1	Not yet used	10	24%

Total votes: 231  
 Please sign in to vote.

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## 3. Trade register

<p>الجمهورية الجزائرية الديمقراطية الشعبية وزارة التجارة المركز الوطني للسجل التجاري CNRC</p>  	<p><b>المعلومات التي يتم عرض لها المفاتيح للشهيد في حالة مخالفة أحكام القانون رقم 08.04 المؤرخ في 14 غشت سنة 2004، وتعملن بشروط ممارسة الأنشطة التجارية، العدل والمتمم.</b></p> <p>طبقاً لأحكام المادة 11.11 مكرر، 12، 13، 14، 15 مكرر، 16، 17، 18، 19، 20، 21 و 41 مكرر من القانون المذكور أعلاه بحال بمراتب من 5.000 إلى 5.000.000 دج و أو خمس من سنة 16 أشهر إلى سنة 19 كل من:</p> <ul style="list-style-type: none"> <li>- مارس نشاطاً تجارياً قاراً أو غير قار دون التسجيل في السجل التجاري،</li> <li>- مارس نشاطاً تجارياً مستخرجاً من سجل تجاري منتهي الصلاحية،</li> <li>- بائع متجسس يفتق غير صحيح أو بائع معلومات غير كاملة يهدف التسجيل في السجل التجاري،</li> <li>- مارس نشاطاً تجارياً قاراً دون حيازة عمل تجاري،</li> <li>- مارس نشاطاً أو مهنة طبقاً خاضعاً للتسجيل في السجل التجاري دون الرخصة أو الإحصاء المطلوبين،</li> <li>- مارس تجارة خارجية عن موضوع التسجيل التجاري،</li> <li>- لم ينشر البيانات القانونية المصنوع عليها في المواد 11.11 و 15 من القانون المذكور أعلاه،</li> <li>- يملك أو يوزع مستخرج السجل التجاري أو الوثائق المرتبطة به،</li> <li>- لم يعدل بيانات مستخرج السجل التجاري،</li> <li>- منح وكالة لممارسة نشاط تجاري باسم صاحب السجل التجاري باستثناء الزوج، الأصول والفروع من الدرجة الأولى،</li> <li>- لم يحدد الأرقام بالداوامة المصنوع عليها في المادة 11 من القانون المذكور أعلاه.</li> </ul> <p><b>ملاحظة:</b> "لا يظن التسجيل في السجل التجاري التاجر من الإلزامات التي تقع على عاتقه إعلان ممارسة أنشطته، لا سيما عندما تكون هذه النشاطات موضوع تنظيم خاص".</p>		
<p><b>مستخرج السجل التجاري</b> <b> قيد</b> <b> شخص معنوي</b></p> <p>رقم السجل: _____ فروع السجل في السجل التجاري: _____</p>	<table border="1"> <tr> <td data-bbox="894 1241 1105 1631"> <p>إعداد المفاتيح للتسجيل أو صيغته الشرحية</p> </td> <td data-bbox="1105 1241 1533 1631"> <p>إعداد المفاتيح</p> <p>التاريخ: _____ الرقم التتبعي: _____</p> </td> </tr> </table>	<p>إعداد المفاتيح للتسجيل أو صيغته الشرحية</p>	<p>إعداد المفاتيح</p> <p>التاريخ: _____ الرقم التتبعي: _____</p>
<p>إعداد المفاتيح للتسجيل أو صيغته الشرحية</p>	<p>إعداد المفاتيح</p> <p>التاريخ: _____ الرقم التتبعي: _____</p>		

# **Appendix B: a guide to the unstructured interviews**

### The questions asked during the interviews

- The presentation of the head managers
- Since when they occupy the post
- How did the information system change before 2014 and after?
- When did the project of digitalization start?
- What were the portals the NCTR used before the latest two portals?
- Did the collaborations with other ministries make it easier for clients?
- When did the NCTR start using electronic payment?
- Did the new portals facilitate the work for workers and customers?
- Do you think that modernization helped?
- What services does the “sidjilcom” portal provide?
- What layers of information does “sidjilcom” provide?
- Can customers obtain their documents online?
- What does the application portal contain?
- What is the job of every icon?
- What changed in the NCTR when modernization occurred in terms of software and hardware?
- Why is there an archive?
- Why are documents still written manually?
- Are you familiar with all the icons the portals provide?
- When there are internet problems, how do you work?