Electronic administration: Concept, Challenges and Prospects

L'administration électronique : Concept, Défis et perspectives

SATRY Fadwa

Doctorante en Sciences de Gestion

Laboratoire de Recherche en Managment, Information et Gouvernance (LARMIG)

Faculté des Sciences Juridiques Économiques et Sociales, Ain Sebaâ, Université Hassan II-Casablanca, Maroc

BELKADI Ez-zohra

Professeur en Sciences de Gestion

Laboratoire de Recherche en Managment, Information et Gouvernance (LARMIG)

Faculté des Sciences Juridiques Économiques et Sociales, Ain Sebaâ, Université Hassan II-Casablanca, Maroc

Abstract:

This article represents a theoretical framework of the concept of e-administration. The topic has been presented in many research papers, because the e-administration is considered as a tool with a crucial role in the reform of the state. Its importance lies in the flexibility and reorganization of public administration. In fact, e-administration has come to solve the failures specific to the administrative services provided to individuals, and to improve the relationship between the citizen and the public administration. The purpose of this research is to present a literature review on the concept of e-administration.

Key words: e-administration; Citizen; Challenges; Barriers; Opportunities.

Résumé:

Cet article présente un cadre théorique du concept de l'administration électronique. D'ailleurs, ce sujet a fait l'objet de plusieurs travaux de recherche, parce que l'e-administration est considérée comme un outil ayant un rôle crucial dans la réforme de l'Etat. Son importance réside dans la flexibilité et la réorganisation de l'administration publique. En effet, l'administration électronique est venue pour résoudre les défaillances caractérisant les services administratifs fournis aux individus, et pour améliorer la relation entre le citoyen et l'administration publique. L'objet de ce travail de recherche est de présenter une revue de littérature sur le concept de l'e-administration.

Mots clés : l'administration électronique; Citoyen; Défis; Obstacles; Opportunités.

Introduction :

In recent years, the actions of the public administration and its dysfunctions have been the focus of debate and criticism, and specifically the user of public services. This has prompted public authorities to reform the public administration's strategic and operational process to accompany the changing political, economic and social environment.

Thus, the advent of the Internet and the speed of technological progress have changed the foundations of the performance of nations and the exploitation of the potential of these two elements is now a necessity, to ensure more openness to the outside world, social well-being and consolidation of the foundations of good governance.

In this context, the end of the 1980s saw the emergence of the concept of e-government as a potential means of modernizing public administration, improving the accessibility and quality of public services, increasing the efficiency of managing public resources, improving governance and enhancing democratic transparency (Carter and Belanger, 2005, United Nations, 2012). The e-administration in Morocco is based on the provisions of the organic law on the finance law that came into effect in 2015, in terms of strengthening the management of results and performance evaluation.

Indeed, e-administration refers to the setting up of online public services for citizens (individuals, businesses, etc.). As a result, by their awareness of the weakness of bureaucracy and traditional management, many governments have intensified their efforts to increase openness and transparency in their actions, using ICT as a tool for profitability, for promotion of transparency and the reduction of corruption (Bertot, and al., 2010).

To develop a fully integrated e-administration project, it is necessary to go through a process consisting of a set of steps (Layne and Lee, 2001). Putting this process in place puts the administration in the face of a set of challenges that it must overcome to meet the expectations of citizens. In this vein, Osbourne and Graebler (1992) urge the adoption of a client-centered approach, and consider the citizen as a customer (consumer) of public services that must be satisfied.

Despite the benefits offered by the e-administration, Fu, and al. (2006) argue that the majority of citizens give up the use of online public services. Thus, they prefer to resort to traditional methods by moving to the premises or obtaining information by telephone. The question is: **What are the challenges and opportunities of e-administration? In other words, what are the advantages and disadvantages of the latter?**

To answer these questions, we divided our work into two parts. The first part will be devoted to the conceptualization of electronic administration, and the presentation of its domains and composition. The second part will be aimed at the obstacles and benefits of e-administration.

1. Electronic Administration: Conceptual Framework

1.1. Definitions:

The advent of the Internet and its benefits saw a simultaneous appearance of the concept of e-administration in the 1990s (Grönlund, 2001, 2005, Grönlund and Horan, 2005).

The definition of e-administration or e-government has evolved in recent years. It should be noted that there is no single, common definition of e-government (Halchin, 2004). As a result, the term "electronic administration" is known by different synonyms such as e-administration, e-government and electronic government. Indeed, it refers to the use of ICT by the administration to deliver public services. Thus, there are several definitions for "e-government". The latter refers to the provision of online administrative services and public information via the Internet or any other digital means (Muir and Oppenhein, 2002).

For its part, Tambouris (2001) defined e-administration through the use of technology and the internet as a tool to provide services to citizens, businesses and other entities. Thus, electronic administration is a radical change in the management of public information to provide enhanced services to citizens, whether private, business, or other public structure.

The OECD defined e-administration in 2003 as "The use of ICTs, and in particular the Internet as a tool for delivering better quality administration to citizens". Therefore, the bet of e-services is not necessarily technological, but the most important is to ensure a dignified life for citizens through the review of the relationship administered / Administration. Indeed, the development of this relationship between the citizen and the administration is associated with the use of ICT, in order to make public bodies competent and able to meet the expectations of citizens (Gautrin, 2004). For Sheridan and Riley (2006) and Yildiz (2007), electronic administration refers to the network structure for inter-connectivity, electronic service delivery, e-workflow, efficiency, efficiency transparency and accountability offered by public institutions without regard to the spatio-temporal factor.

Isaac (2007) argues that e-administration reflects the use of technology by the government apparatus, particularly web-based Internet applications, to improve access to information and public services for citizens, to business partners, employees, other organizations and government structures.

According to the World Bank (2009) e-government is the use of ICT applications to improve communication between the government and citizens, businesses, employees and other public sectors. In this context, e-government means both policies favoring the development of information infrastructures and measures specifically dedicated to the fight against the digital divide (Cawkell, 2001).

The purpose of e-administration is to establish good governance that remains linked to citizen participation and the presence of democratic institutions (Lenk and Traunmuller, 2000). In the same vein, electronic administration has been described as the use of ICTs to improve access to administrative services and delivery of value-added target processes for the benefit of stakeholders (Srivastava, 2011). In general, e-administration indicates the use by the administrative institutions of information and communication technologies with the capacity to transform relations with citizens, businesses, employees and the public entity. These technologies are used to achieve the objectives of electronic administration: improving the quality of services provided to citizens, developing interactions with legal persons, especially businesses, strengthening the autonomy of citizens through access to information and the guarantee of the effectiveness of public administrative management. This, in view of the continuous provision of administrative services to citizens, the minimization of the response time, the reduction of the error rate and the limitation of paper documents (Stamoulis, 2001).

From the foregoing, we find that e-administration has several aspects (Grönlund, 2001, Grönlund and Horan, 2005) which consist of the establishment of online, interactive and transactional administrative services through the use of ICT and internet and e-commerce. In addition, the organizational change of the administration and the reform of public policies to provide citizens with quality services, effective, lower costs and delays. Thus, the aspect of equity and justice that supports the role of e-administration as a democratic space ensuring democratic participation and consultation in terms of relations between state, citizen and business.

1.2. Categories of electronic administration:

According to the definitions of e-administration, we note that it provides services to different categories: government agencies, businesses, citizens and employees, according to needs and interests. This allowed the development of several classifications and typology of e-administration.

For Lowery (2001), e-administration represents electronic interactions between the government and the beneficiaries of its services (see Figure 1). The World Bank (2007) also agrees with this description, ie the existence of relations between the government (the administration) and the users of its services: government to the citizen (G2C), government to enterprises (G2B), Government Employees (G2E), and also the Government to Government (G2G). According to Yildiz (2007), there are four types of e-government based on its missions and tasks performed.

- ▪ **E-administration : G2C (Government to Citizen)**

At this point, most utilities are aimed at citizens and all users, to provide them with completed and integrated electronic services to meet their information, transaction or other needs, such as: online tax reporting and payment, downloading of administrative forms and tracking of medical reimbursement records.

In addition, the permanent communication between the administration and the citizen has been strengthened by the establishment of the e-administration, which improves the quality of the public services, the responsibility, and the democracy (Ndou, 2004; Zhi and Zhenhua, 2009) and subsequently the improvement of the relationship between the administration and the citizen.

In this wake, the G2C provides citizens with easy access to information and administrative services anywhere and at any time thanks to the efficiency and effectiveness of teleservices. This initiative therefore transcends any space-time constraint by means of electronic communication between the administration and the citizen, which facilitates and increases the contribution and citizen participation to public institutions (Seifert and Bonhan, 2003, Gil-Garcia and Pardo, 2005, Yilidiz, 2007 and Rowley, 2011).

For their part, Pina, Torres and Royo (2010) urge that the main goal of G2C's electronic services is to listen to citizens and their needs, to facilitate their access to information and to Exchange with the administration through the use of portals and electronic platforms, reducing the time and cost of transactions.

In the end, this relationship reflects a response to citizens' expectations in the context of the "one-stop shopping" concept and the "Customer centric" approach. In other words, the offer of integrated electronic services to the citizen / user allows him to perform multitudes of operations without resorting to each administration in a specific way.

- ▪ **E-administration : G2B (Government to business)**

The second type of e-administration is the G2B, which describes public services for businesses and economic actors. The G2B includes several services exchanged between the administration and the different business sectors, including the dissemination of regulations and operating policies, and memos (Tan and al., 2005). Thus, Lu and al. (2010) state that G2B means obtaining information and services that are essential for carrying out commercial activities such as downloading applications and registration forms for business tax, obtaining the register of trade and negative certificate, the updating of information in terms of regulations and legal provisions.

Indeed, Javarauskienne and Pilinkiene (2009) encourage the fundamental role played by the services offered by G2B services in terms of business promotion, and particularly SMEs. For example, the latter will have more opportunities to participate in public procurement thanks to the dematerialization of procedures and the electronic submission of tenders. This process automation ensures fairness and transparency in the processing of bids. Fang (2002) also supports this idea by insisting that the actions of the G2B participate fully in the development of e-procurement. As a result, they master public spending and optimize ordering in a framework of transparency and equal treatment of competitors, in order to have good governance of public markets. This G2B approach represents an opportunity for the administration in terms of developing an e-Marketing strategy by referring to the experiences of online businesses.

The G2B shares common utilities with the G2C, namely, improving the quality of services and developing communication with companies, minimizing costs and reducing processing times for their requests. We can say that through this interaction the business becomes more and more competitive and faces the challenges of competition and globalization.

- ▪ **E-administration : G2G (Government to Government)**

As a pillar of the implementation of e-administration, the concept administration to administration (G2G) indicates the different interactions between public bodies (administration, ministry, institution, agency, institution, management ...). Indeed, it is interested in improving public services between these government entities through the development of applications ensuring the sharing of information, the setting up of the infrastructure necessary for collaboration and cooperation, and the exchange of databases.

According to Curtin (2007), the use of information and communication technologies by these public bodies has led to improvements in public services, and has generated savings in terms of cost and time. Thanks to this use of ICT, the sharing and centralization of information between these different entities is now possible. Thus, the intergovernmental operational process has become increasingly automated and optimized. As a result, the exchange of information and databases between the General Direction of Taxes (DGI) and the General Treasury of the Kingdom (TGR) is a better example of collaboration between two Moroccan

branches. G2G is considered to be the essential area for e-administration, as updating and updating of internal systems and procedures is a priority.

Thus, online communication and cooperation remain the currency of agency effectiveness and efficiency through the sharing of information and databases, and the consolidation of skills and efforts.

The objective of the G2G is part of the integration and interconnection of public services between administrations to achieve performance.

- **E-administration: G2E (Government to Employees)**

Human capital is the source of all development. The reason why this component is an integral part of the implementation of e-administration. Indeed, the G2E is limited to the relationship between the administration and its employees, and it concerns the improvement of services for civil servants. In this wake, the G2E consists of setting up online services meeting the needs of the official. These services may be paid for salaries, reimbursement of travel or mission expenses, annual vacation leave and balance check (Seifert, 2003; Ha and Coghill, 2006). In addition, this type of service allows the public servant to follow and develop his or her career because of the online training offered to improve their ICT learning. By adopting a simple and fast mode of communication, the public services addressed to the employee also allow him to access the information concerning the policies of remuneration and salary treatment, thus, they guarantee him the management and the follow-up of his social benefits at distance and determination of rights and obligations (Heeks, 2006; Balezentis and Parazinskaite, 2012).

Ndou (2004) argues that G2E initiatives include tools and strategic measures aimed at boosting the implementation of e-administrations projects. So, they provide easy access to information for the employee, they allow him to benefit from online training, and they allow him access to databases in order to carry out his mission of serving the citizen.

Finally, Siau and Long (2009) state that this category represents a space of interconnection and interaction by excellence, because of its role of gathering skills, sharing knowledge and promoting e-Learning. The G2E is a basket of services and information for the employee, contributing to his management and meeting these expectations.

Figure 1: Examples of e-government services (Lowery, 2001)
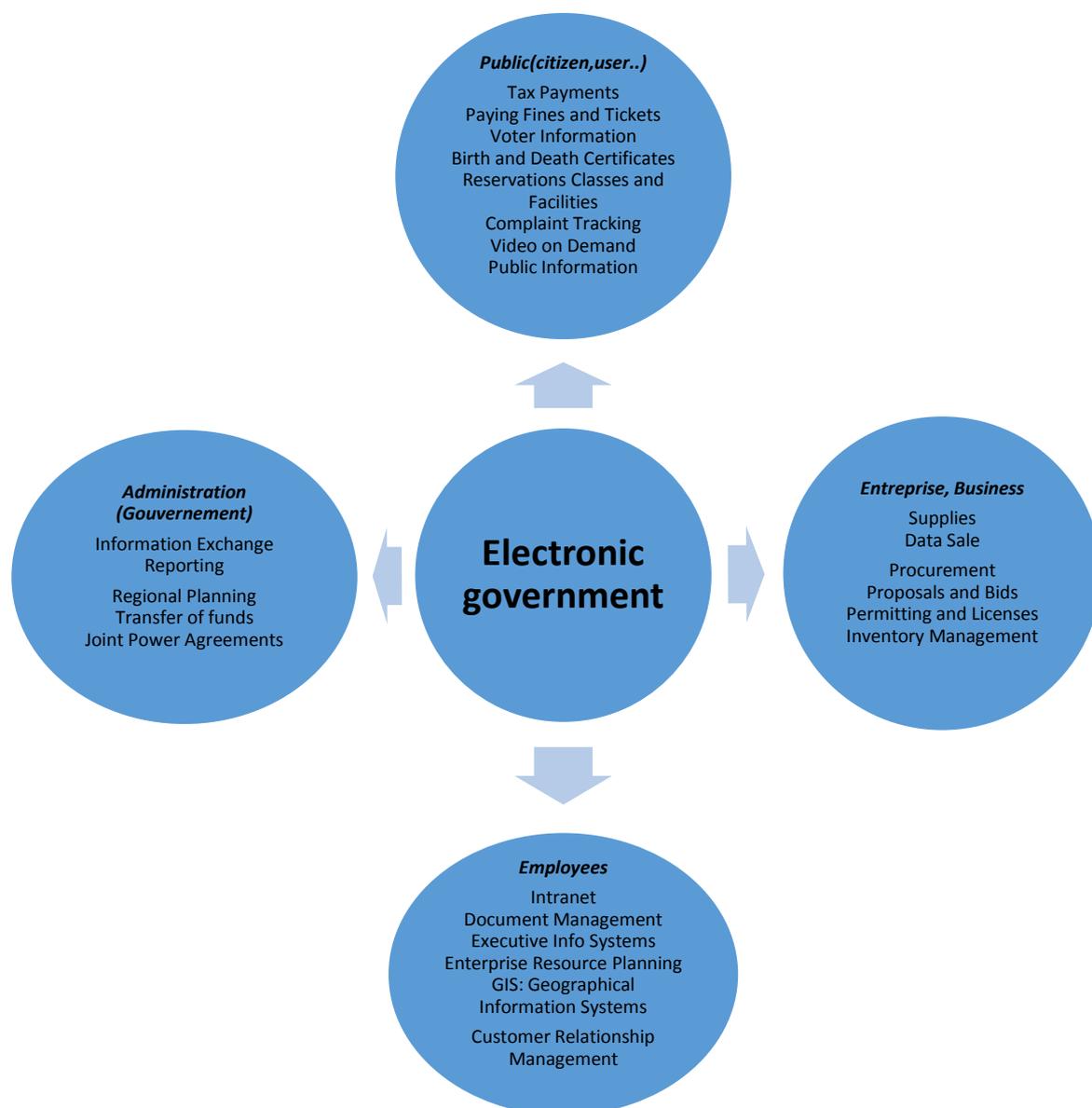
Source: adapted by the author by reference to Lowery, L. M. (2001). Developing a successful e-government strategy. *San Francisco, Department of Telecommunications & Information Services*.

1.3. Domains of the e-administration

In line with the definitions and types of e-administration, we find that e-government is a broader field that brings together a number of interrelations and initiatives, which can be summed up in three main directions that relate to the development of government procedures, the connection of citizens between they, and the strengthening of external relations (Heeks, 2001; Oliver and Sanders, 2003). Ntiro (2000) states that e-administration or e-government covers three main areas, including:

- **E-administration:** aims at the improvement of the whole of the internal and external administrative processes of the administration. Thus the e-service aims to improve service delivery processes for the citizen user whether he is private or business. In addition, the measures taken at this level are more specifically concerned with the internal functioning of the public sector. These are the reduction of financial costs, the optimization of time and the management of process performance: planning, monitoring and control. The performance of resources (human, financial, other ...) is also part of this area. E-administration aims at creating strategic links between the various stakeholders of the administration, which stimulates research capacities, the development and implementation of strategies and policies guiding the administrative process. This is reflected later on the ease of empowerment in terms of the transfer of power, authority and location of resources.

- **E-democracy:** either the couple (e-Citizen, e-services) aims at developing and improving relations with the citizen as a political actor, holder of legitimacy and as a consumer public services. In this context, communicating with the citizen and providing him with detailed information on the activities of the public sector is an indispensable act. In addition, listening to citizens helps to increase citizens' participation in public decisions and actions. This is considered a democratization in the contribution to political life. This area also gives some autonomy to the officials while making them more responsible for their decisions and actions. Finally, quality, convenience and cost are now the fundamental dimensions of improved public service delivery.

- **E-society:** is the third area concerned with the development and improvement of external social relations, ie interactions with civil society, including public institutions, private companies, other institutions, non-profit and community organizations. Indeed, the creation of relations with companies implies the improvement of the G2B through the dematerialization of the regulation on the supply and the services managed by the companies. This develops the quality, convenience and costs, on the one hand, and on the other hand, the links with non-profit organizations contribute to the emergence and construction of the solidarity economy. the e-society participates in socio-economic development thanks to the partnerships and organizational groups created. At this level, the public sector operates in a collaborative approach acting as an intermediary to facilitate procedures and overcome the barriers that hinder the achievement of the expected objectives.

We briefly present these areas mentioned above in the following table:

Table 1: The domains of e-government

Field	Attributions
E-Administration	Improvement of administrative procedures: - Reduced financial cost and time - Performance Management - Creating strategic interactions - Facilitation of empowerment
E-Democracy	Connecting citizens with each other: - Dialogue with citizens - Listening to citizens - Improvement of public benefits
E-Society	Support on external relations: - Cooperation with companies - Community development - Strengthening partnerships

Source: adapted by the author by reference to Ntiro, S. (2000) eGovernment in Eastern Africa, KPMG, Dar-es-Salaam. E-Government for Development: Success and Failure in e-Government Projects.

The three areas of e-administration encompass a variety of programs with different dimensions. Thus, there are some who are interested in administrative processes, political processes, and social development. Thus, they intervene to provide solutions related to administrative problems, such as inefficiency and inefficiency, increased costs, corruption, lack of autonomy, delays in processing and waiting.

2. Electronic administration: challenges and prospects

2 .1. Challenges and disadvantages of e-administration:

In order to take stock of these challenges, a great deal of research has been initiated in several areas: technology, management, policy, information and organizational issues. At the same time, government practitioners have been involved in developing and linking strategies to address these challenges. However, the determination of the challenges of e-administration is not exhaustive.

According to (Heeks, 2002), e-government projects have not been successful for two reasons; the first is reflected in the limited number of projects undertaken in some countries. The second is explained by the failure of electronic administrative projects in one way or another.

Gil-García and Pardo (2005) and Hwang et al. (2004) also group these challenges into five categories according to different aspects: technology challenges, organizational and

management challenges, information and data challenges, institutional challenges and environmental, legal and regulatory challenges.

The major obstacles that delay the progress of e-administration projects are:

- **Technological and technical obstacles:**

E-administration requires the use of the internet and ICTs as already mentioned in the definitions. However, some initiatives remain paralyzed in the face of a lack of technological infrastructure and security and confidentiality standards.

For infrastructure, developing countries suffer from a particular challenge represented by the digital divide. Thus, there are two types of fracture. A qualified first degree translated by the lack of access of people to the Internet. The second called second degree, which consists in the difficulty of using ICT by certain groups. In this context, the administration is less advanced because of these barriers, since its purpose is to improve and generalize the quality of services for all citizens.

Most people who experience the digital divide are poor and disadvantaged and are the target of government intervention (Lau, 2004). So, it is essential for this category to access services and public information, in order to exempt them from travel expenses and the costs of the service. However, because of this fracture, they can not benefit from the benefits of online services. In this wake, the reduction of the divide is inevitable through the generalization of Internet access, the adoption of a targeting policy concerning current services and interesting for people with limited access, the promotion of electronic services, awareness campaigns and training of these groups on the use of ICTs.

Indeed, the developed countries are facing the challenge of the speed of technological progress which represents a second major challenge. The latter is explained by the uncertainties generated by technological change, which hampers public authorities to strengthen e-administration. This is due to the absence of prior and prospective studies in terms of impact on public policies. In addition, the technological revolution brought about by the increased appearance of new technologies and the complexity of manipulation are constraints that have a significant effect on the results from a computer system. This idea is in line with the one who appreciates the opportunities offered by ICTs in the revision and modernization of the modes of operation, but it also points out that the use of "nascent" technologies, that is to say, which have not been tested or proven before constitutes a very high risk of failure (Lau, 2004).

In addition, the forced choice of a standard before the availability of solutions on the market causes several technical problems. We add, the lack of concordance between government orientations and technological progress due to the lack of communication with users on their expectations and needs. As a result, the risk can be minimized by using pre-tested tools and techniques that are available on the market. As a result, technologies that are not proven are discouraged.

In addition, the lack of technical infrastructure is also a challenge. In other words, the provision of electronic services faces difficulties associated with the lack of communication and collaboration between different public institutions. This has its roots in a lack of IT tools

and hardware, a modest investment in ICT, weak harmonization of systems and standards, as well as a lack of innovation in the implementation of modern applications, facilitating data exchange and interaction between systems. In addition, there is a lack of a common and single framework for general administrative standards aimed at the circulation and sharing of digital information between individuals, businesses and the public administration.

With regard to the challenges of developing integrated services and citizens' expectations, the goal is to set up electronic services aimed at providing integrated and consolidated information and services to users such as the one-stop-shop for example. As a result, the provision of integrated services consists of the provision of data to the administration only once to serve different functions thereafter, and this contributes to reducing costs and improving the quality of services.

ICTs are used to ensure communication between public bodies and the user (citizen, company ...). But the latter are unable to determine their aspirations and needs in terms of the depth and form of public services, which is a constraint for the development of online services. Thus, all nations are now aware that services must be established and delivered on the basis of user expectations while benefiting from the benefits of the internet and ICTs and orienting these services towards a customer-focused vision.

With respect to security, Layton (2007) argues that security means the protection of information and systems against accidental or intentional disclosure to unauthorized access or unauthorized modification or destruction, that is, it is the protection of access to information itself by information systems (Lean and al., 2009). In this context, several studies have focused on issues related to IT security for citizens and administrations, and having concluded that IT insecurity is a barrier that limits the development of e-government worldwide (Al - Fakhri et al, 2008, Al-Shehry, 2006, 2009, Colesca, 2009, Almarabeh and AbuAli, 2010). As a result, security is the pillar of building a strong relationship of trust between citizens and the administration, which is why the introduction of security policies is essential (Colesca, 2009). In this context, public bodies are supposed to guarantee this security and the preservation of personal data. Thus, they must ensure compliance between the expectations of citizens and the projects carried out, in order to establish and strengthen a climate of trust between the administration and the citizens. The fight against cybercrime and fraud are costly measures and weigh heavily on public spending. But, they will serve the goals of e-administration and mark the country's leadership.

For example, the use of digital signatures, encryption, credentials, passwords, credit card numbers, bank account numbers and other data transmitted over the internet and stored electronically can help achieve the security objectives of the e-administration (Stibbe, 2005, Weerakkody and al., 2011), especially in the realization of financial transactions, which require increased trust in online services and reliability and effectiveness in execution.

Computer security is a challenge for electronic administration because of the legitimacy of protecting personal data against abuse or viruses (Seifert and Bonham, 2003). It remains without significant influence on the progress of e-administration, as the public learns to work with and accept its occasional failures (Reddick and Frank, 2007).

Lau (2004) mentioned other challenges such as the lack of interoperability, the lack of standardization of data formats and the incompatibility of standards in terms of technology. In addition, the deterioration in the level of adoption of e-services by users is the result of the lack of technical and technological quality criteria. In this sense, quality means a user-friendly computer system, easy to use, responsive and available, secure and ergonomic (Gilbert and al., 2004).

The absence of computer security leads to the failure of e-administration. As a result, when the citizen finds himself insecure, he gives up his electronic transactions, especially online payment. Therefore, it remains faithful to the traditional modes at this level.

Regarding privacy, among the concerns of users of teleservices, we find the protection of privacy (confidentiality). This term is defined as the claim of individuals to decide what information about themselves can be known by others (Westin, 1976). In addition, the protection of the privacy of citizens is a major concern for stakeholders, which makes it a fundamental obstacle to the implementation of e-administration initiatives. Belanger and Hiller (2006) argue that the frequency of online platform monitoring concerns, information sharing and disclosure, and private data retention is universal.

In fact, citizens' trust in the public administration and its online services is associated with the protection of their private life. Thus, the more the citizen sees that his personal data are protected, the more he uses public electronic services. These authors consider privacy and confidentiality as fundamental obstacles to the implementation of e-administration because citizens are deeply concerned about their personal data and the confidentiality of the personal information they provide in order to obtain public services. Thus, the public administration is under an obligation to ensure the rights of citizens with regard to the protection of privacy, processing and collection of personal data, and that they are used only legitimate purposes (Sharma and Gupta, 2003).

For their part, Almarabeh and AbuAli (2010) advocate that the confidentiality criterion be taken into account when establishing and maintaining websites, in order to guarantee more security in the collection of data.

- **Sociocultural challenges:**

The main objective of the e-administration is to increase citizens' satisfaction with public services through the use of teleservices. However, this end is still hampered by factors such as: digital divide, culture, education level and social category (income).

According to the OECD (2003), the digital divide refers to the gap in opportunities between those who have access to the Internet and those who do not. As a result, those who do not have access to the internet will be unable to benefit from online services. This generates a kind of marginalization and social exclusion through the unequal use of e-services. This fracture results from the lack of financial resources and the poverty of human resources. In addition, the level of education plays an essential role in the use of online administrative services, hence the need to fight against computer illiteracy, which allows all citizens to benefit from teleservices and take advantage of potential of the internet and ICTs. The focus is on training citizens and employees in basic computer and internet tools to promote e-administration. Gomez (2009) also points out the importance of equipping public Internet

spaces and the necessary infrastructures, with the aim of reducing inequalities between households that have access to the Internet and technological tools and to those who do not have access to them.

The social category is also a challenge. For example, low-income citizens can not own a computer or have access to the internet, which prevents them from using tele-services. In addition, language is considered as one of the obstacles that limit the use of e-services by citizens. Thus, several e-government studies have raised language barriers, including Shalini (2009) who argued that Mauritians find a problem with the use of e-government sites because they do not speak English. In this context, respect for linguistic variation is essential when designing an electronic administration project. Therefore, we must choose the language or the common languages that allow the citizen to communicate readily and easily to obtain his administrative services.

For Feng (2003), the barriers of e-administration are not just technical and technological, but can also be cultural implications of new technologies. Indeed, the cultural behavior of the individual plays an important role in the use of new technologies and online services by citizens and decision-makers (Choudrie and al., 2010). Culture encompasses beliefs, religion, language, education, values, characteristics and behavior of a society (Burn and Robins, 2003). Citizens who do not trust online services, for example, and who do not want to participate in e-government initiatives, are more significant barriers. Al Shehry et al. (2006) discusses resistance to change by citizens, some of whom still prefer to use traditional procedures as a consequence of lack of trust in online services.

Reffat (2006) argues that public sector employees are qualified by limited skills, which makes it impossible to ensure better use of e-administration systems to meet the demands of citizens. This is due to the lack of skills and financial resources to provide these trainings, which puts employees face an organizational change in the internal operating culture against which they show resistance.

To cope with this cultural shift, prior planning and strategy studies are measures of e-administration success. Indeed, the more the strategy of setting up an e-administration project is determined, with clear and precise objectives, and with the implication of the expectations of the concerned by this project, the more the latter is mastered and successful.

- **Legislative and regulatory challenges:**

Legislation and regulations are two essential requirements for setting up and using e-government services. Thus, the use of these services remains reduced in the absence of legal equivalence between digital processes and those imposed on paper forms. Indeed, the communication of electronic forms containing personal data depends on the legal recognition of digital signatures (Lau, 2004). Almarabeh and AbuAli (2010), Tolbert and Mossberger (2006) and Ndou (2004) insisted on the obligation to undertake political and regulatory measures of the electronic activities of the administration, namely: electronic signatures, electronic archiving, freedom of information, data protection, computer crime, intellectual property rights and copyright issues.

In addition, it should be noted that several countries are experiencing a lack of laws on public electronic activities. In this context, many obstacles exist such as: the complexity of

regulations and obligations imposed on public bodies, the rules of liability related to the exploitation of public resources and the evaluation of performances. Thus, the exchange of data between public institutions remains limited because of the legislation that is not developed on the subjects that deal with the data security of users and the protection of privacy.

- **Organizational challenges:**

In terms of organizational and management challenges, McFarlan (1981) and Davis (1982) indicate that the size of the project and the diversity of service users in organizations are two key challenges for IT initiatives. So, there is a problem resulting from the lack of alignment between the objectives of the organization and the IT project (Dawes & Nelson, 1995; Dawes & Pardo, 2002). In addition, the public sector is characterized by a strong bureaucracy and a multiplicity of administrations, as well as a sophistication of its structures, which constitutes difficulties in the realization of the e-administration initiatives (Sharifi and Zarei, 2004). The lack of collaboration and partnership between the different administrations is also a hindrance to the successful implementation of an e-administration. Indeed, Altameem et al. (2006) argue that collaboration and cooperation at local, regional and national levels, as well as between public and private organizations, are important elements in the development process of e-administration.

For its part, Ndou (2004) indicates that the administration should play the role of facilitator and encourage the private sector to participate in the development and implementation of public e-services. This incentive is based on a partnership between the private and public sectors, which benefits from private sector ICT experience and knowledge. In this way, the private sector will allow the public sector to have the necessary infrastructure to succeed in e-administration projects.

The ability of public managers to resist organizational change through the use of ICT is related to their competence and training in ICT and its use. However, the lack of qualified personnel and the inadequate training of human resources are sources of problems faced in the implementation of e-administration. In this framework, it is required to strengthen training and education programs to improve the progress of electronic administration projects through the organization of training workshops, simulation and seminars. To ensure its continuity, the e-administration project requires a synergy of skills and capabilities: technological, financial, managerial and especially human. The latter must be able to maintain, conceptualize and install the ICT infrastructure, as well as solve any technical problem in order to offer the citizen a complete service.

From what we have cited as organizational challenges, we deduce that the sense of management and leadership must be strong in the public sector to overcome management problems. Thus, developed countries should be followed as an example of collaboration between the private and the public sectors in order to succeed in e-administration initiatives.

- **Economic challenges:**

The implementation of e-administration initiatives is recognized by its high costs: investment in computer hardware, maintenance, software, training, and awareness (Carvin, Hill and

Smothers, 2004, Stoltzfus, 2005). Budget deficiency is therefore the most important challenge to the implementation of electronic administration. Moreover, Ndou (2004) finds that developing countries suffer from a lack of financial support to invest more in ICT.

In addition, the budgetary challenges also lie in the gap of insufficiency found between the budget allocated to a project and the duration of its implementation, because some projects require long-term financing or cooperation with other organizations for financing. . Public structures often have to deal with programming and budgeting issues. Sometimes policy makers may overestimate or underestimate the budgeting of a project, without considering the urgent and important nature.

However, this mismatch between the budget and the nature of the project affects the potential results of long-term IT initiatives. Therefore, it is necessary to adopt a short, medium and long term vision to carry out the mission of the installation of the electronic administration.

Finally, the success and progress of e-administration requires the availability of financial resources, which are aligned with adequate time programming to achieve the expected objectives and increase citizen satisfaction. In fact, this last point is among the contributions of Moroccan LOLF 130-13, hence the multi-year programming is one of the elements necessary for the performance of public projects.

2.2. Opportunities and benefits of e-administration:

Thanks to its limitation of contact between the administration and the citizen, the electronic administration improves the transparency and the confidence towards the public administration. As a result, it ensures democracy and social justice and strengthens the fight against corruption and guarantees the easy access of users to their administrative files.

Sauret (2004) has seen electronic administration as a driver of productivity gains through direct cost savings and indirect costs represented by the effects of increasing the quality and timeliness of administrative processes. Moreover, it makes it possible to shorten the instruction time, and ensures quality services translated by the simplicity of use and the option of the "multi-channel" which gives the choice to the user to communicate with the administration according to the channel that suits him. In addition, it offers services full of responsiveness and availability.

According to a Canadian study by Boudreau (2009), the reliability of the data and the objectivity of the decisions are advantages of the adoption of e-government, through the use of ICT, in the sense that the human is replaced by the machine. This prevents the increase of the error rate in the paperwork. The mistakes and errors involuntarily committed by employees are limited and outdated by the automation of procedures and processing. As a result, information and administrative data will be increasingly accurate and complete.

On the one hand, e-administration respects logic in processing times without influencing the quality of the service, ie the waiting time. It responds to the needs of the citizen effectively and efficiently, hence the speeding up of the procedure and the follow-up of its request from registration to execution. In this wake, we note the important role that electronic administration plays in reducing public bureaucracy.

On the other hand, e-administration ensures that information about public organizations, its services and processes is updated. Also, Boudreau (2009) states that the centralization of operations in a region or decentralization in several regions, are now possible without harming the quality of services and their performance. In other words, the e-administration appeared to solve the problem of proximity, and to approach the administration of the citizen without taking into consideration neither the time nor the space.

With regard to the simplification of the procedures, the electronic administration constitutes a perfect platform of remote communication, and exonerates the citizen from certain approaches. Online services reduce the burden of administrative procedures, including travel costs and the cost of the service itself. In addition, the interconnection, sharing and exchange of databases between different administrations serves to consolidate commonly offered services, which gradually leads to full integration of public services in the future. So a minimization of the financial costs and reduction of the come and go will be assured.

Electronic administration enables customization of requests and facilitates the sharing of information, in order to offer services tailored to each beneficiary of his services according to his wishes. Thus, it aims to promote citizens' sense of citizenship through their involvement and engagement in political life. As a result, citizens are an integral part of the achievement of good governance.

Moreover, the e-administration improves the quality of services for everyone. In this context, it is important to begin the benefits of dematerialization and digitization on the labor climate in the public administration. In fact, the public servant will be more and more productive and profitable, thanks to innovative and fast computer equipment. As a result, the workload will be reduced and spending on manual supplies will be reduced. In addition, communication between the hierarchy and subordinates or between administrations will be easy.

Conclusion:

Electronic administration means the provision of public services to citizens through the internet and ICTs. Thus, its evolution was marked by an initial presence on the internet towards a wider presence involving a complete integration of public services. In addition, Linz and Stepan (1996) consider e-administration as a condition of good governance manifested in a series of measures undertaken to improve the functioning of the public sector.

The e-administration represents a set of interactions between the different stakeholders: citizen, employees, company, government. These relationships are based on the nature of the public service requested, according to the needs and expectations of each category. This with the aim of promoting the citizen-user-centric approach, by offering quality public services with the least cost and minimum waiting time. Thus, it ensures the good governance of the public markets through the dematerialization of the public order and the electronic submission. In addition, it guarantees cooperation between the different public administrations thanks to the ease of access to information and the exchange of databases.

In addition, e-administration has a managerial, democratic and social aspect. This character is reflected in the performance of utilities and the optimization of cost and time.

It is also the democratic aspect represented by fairness and transparency, listening and dialogue with the citizen.

The social aspect of e-administration lies in collaboration with civil society, business and other organizations through partnerships and cooperation.

Despite the benefits of e-government in facilitating access and sharing of public information, reducing errors, responsiveness and availability as well as reducing corruption and promoting transparency. It remains limited because of constraints: technical, budgetary, organizational, regulatory and legal, economic and financial.

Indeed, technical constraints bring together obstacles related to the lack of ICT infrastructure, the digital divide, security and confidentiality. Thus, the budget handicap results in insufficient financial resources to set up a successful public e-services project. In addition, bureaucracy and resistance to change are two main organizational challenges. In addition, public electronic actions suffer from an absence of laws in this area, which makes legislation and regulation a barrier to the implementation of e-administration and its development. Noting also that there are socio-cultural barriers represented by culture, language, level of education and social stratum.

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