

# Digital platforms contribution to improvement of service provision to citizens in Nampula

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**Keywords**—public administration, digital platforms, debureaucratisation, electronic government.

**Abstract**— This research has as its central subject the evaluation of digital platforms contribution to improvement of public sector service provision to citizens in the city and Province of Nampula, in Mozambique. In 2001, the Government of Mozambique launched the Public Sector Global Reform Strategy (EGRSP), which is the basic and fundamental document that outlines the guidelines for implementing all public sector policies, strategy and sector plans. Before launching the EGRSP in 2000, the Government approved the Informatics Policy, aimed to include Mozambique in the world of information and communication technologies, which has Internet as the highest exponent. In 2006, e-Gov program is approved, which in the following years it is materialized with the creation of specific sector platforms for service provision to citizens and companies, which is the subject of analysis of this study. Methodologically, the study is documentary, of qualitative nature; 8 interviewees participated in the study. It used content analysis technique for data analysis. The results show that the contribution of the implementation of digital platforms in the Public Sector allowed for greater speed, less bureaucracy, flexibility in the processes of document acquisition, in addition to collection of revenue for the State Treasury. However, despite the contributions found, it is understood that the electronic systems need interconnections with other public sector systems in order to allow speed and quality in service provision to citizens.

**Resumo**— O presente trabalho tem como tema central a avaliação do contributo das plataformas digitais na melhoria de prestação de serviços aos cidadãos pela Função Pública na cidade e Província de Nampula em Moçambique. Em 2001, o Governo de Moçambique lança a Estratégia Global da Reforma do Sector Público (EGRSP), que é o documento base e fundamental que traça as linhas mestres para implementação de todas as políticas, estratégia e planos sectoriais da Função Pública. Antes de lançar a EGRSP, o Governo aprova em 2000 a Política de Informática, com o objectivo de incluir Moçambique no

*mundo das tecnologias de informação e comunicação, que têm na Internet o seu expoente mais alto. Em 2006 aprova o programa o e-Gov que no anos subsequentes, veio se materializar com a criação de plataformas específicas sectoriais para PS ao cidadão e empresas, que é objeto de análise deste estudo. Metodologicamente, o estudo é documental e de natureza qualitativa e participaram 8 entrevistados e empregou a técnica de análise de conteúdo temática para a análise dos dados. Os resultados alcançados demonstram que o contributo da implementação das plataformas digitais na Função Pública (FP), permitiu maior celeridade, desburocratização, flexibilidade nos processos de aquisição de documentos, para além de arrecadar receita para os Cofres do Estado. Contudo, pese embora os contributos verificados, entende-se que os sistemas electrónicos necessitam de interconexões com outros sistemas da FP para permitir uma maior rapidez e qualidade no atendimento ao cidadão.*

**Palavras-chave**— administração pública, plataformas digitais, desburocratização, governo eletrónico.

## I. INTRODUCTION

In recent years, it is perceived an increasing interest in ICTs, because the modern world is profoundly dominated by the ICTs, a society of knowledge in which governments struggle to maximize quality public service provision by using information and communication technology in order to respond to citizens' demands and achieve its good governance goals, on one hand. On the other hand, governments strive to provide, through Electronic Portals, relevant information about public services. It is noticed the importance held today by the information and communication technologies to people, organisations, institutions, business, especially to development towards achievement of Millennium Goals. Mozambique is integrated in this global society of information and communication technologies, in which knowledge circulates at a speed never seen before in the history of mankind, affecting all aspects of the lives of Mozambicans, and all aspects political, economic, and sociocultural activities. For the ICTs to perform their catalytic function in the scope of national efforts aimed at eradicating absolute poverty and improving the living conditions of the Mozambicans it was formulated a regulating instrument.

The way public administration was in the post-independence period, between 1975 to 2000, it could not continue. That is why the Government of Mozambique adopted the Electronic Government, whose implementation occurred in the framework of the Public Sector Global Reform Strategy (2001-2011), and, in 2005, they approved the Electronic Government Strategy as in integral part.

Various authors consider that the Electronic Government has assumed an increasing importance in current society, considering itself as a vital process for public sector modernization, having as major priority to improve significantly the quality of public services provision, through utilization of the ICTs and presenting itself as a strategic area

for construction of the Society of Information and Knowledge (Gouveia, 2004).

For better understanding of the present work, it is important to highlight that according to Mateus (2008, p.1), for example, *“Electronic Government is seen as a strategic process in order to improve the relationship between citizens and companies, and the public administration, contributing, moreover, to its modernization”*.

The Informatics Policy offers a set of principles and objectives which may allow *“information and communication technologies to be the driving force for several aspects of national development”* (Resolução n° 28/2000, de 12 de Dezembro).

The creation of the Electronic Government in Mozambique in 2011 drove the creation of other specific and sector platforms for improvement of services provision to citizens.

As a response to and complying with the degree of e-Gov implementation in Mozambique, there were implemented several Integrated Platforms for Service Provision to the citizen and companies based on e-Gov.

Regarding to the importance the ICTs present, Xavier states that:

Information and communication technologies have been modifying the interaction relationship paradigm between people and institutions, particularly in public administration. The initiatives and projects promoted by the successive governments aim to allow the utilization of public resources in a more economical and efficient way, that is, allowing the State to improve their services with little, through dematerialization of processes and services, making them possible to be executed online and through a single point

of contact, thus, privileging a multichannel structure (Xavier, 2015, p.8).

The Government of Mozambique conceived, approved and implemented projects of electronic platforms through Informatics Policy, Electronic Government Strategy, and Electronic Government Strategic Plan as a way of operationalizing the Electronic Government (e-Gov) in order to rationalize the utilization of information technologies in the public sector.

Like in other countries, significant progress has been made in recent years in the utilization of digital technologies for promotion of internal efficacy, simplification of governmental procedures and improvement of public services. Meanwhile, in order to obtain all the benefits resulting from the utilization of technologies and to modernize its essential administrative capacities, such as, tax collection, expense monitoring and public sector management, progress regarding its policies and practices in digital government must prevail (OCDE, 2018). The study objective was to examine the contribution of the implementation of digital platforms in the public sector for Mozambique social and economic development.

## II. METHOD

This study is exploratory and of qualitative nature. Its exploratory typology is justified by the fact that the subject under study has been little explored in Mozambique, especially in Nampula, this study site.

According to Nielsen, G.A.F, Olivio, F.L.R and Morilhas, J.L, (2018, pp. 111-123) and based on studies, the present scientific research is characterized in four aspects.

In terms of its nature, it is basic because it intends to explore an area of knowledge without concerns about developing immediate practical applications. In this context, two government models are analysed: the old and the modern, consisting of electronic platforms and the gains obtained from their implementation. In terms of approach, the research is qualitative because its objective is to conduct an in-depth analysis of the electronic platform phenomenon and interpret, in details, the electronic platform under analysis. In terms of goals, the present research is classified as exploratory, descriptive and explanatory because it studies a little-known phenomenon and aims to know it better (particularly, to analyse the electronic system and its effective implementation for quality management of services delivered to citizens), and because it aims to present the characteristics and to describe the phenomenon under study

(specifically the functions of the platform). Third, because it explains the phenomenon under study, which is analysis of the introduction of the electronic system for commercial licensing. In this case, it explains the cause and effect/reasons and result relationship. The reasons that led the Government of Mozambique and their cooperation partners to introduce the electronic platforms was decrease and elimination of bureaucracy and fighting corruption, while the effect or result of the electronic system implementation is to completely improve service delivery to the citizen. Finally, in terms of technical procedures, the research is classified as bibliographical and documentary (Flavio at all, 2018, pp 111-123).

For Minayo (2014) qualitative research is one which devotes itself to the study of the history, relationships, representations, beliefs, perceptions, and opinions, which are products of the interpretations made by humans regarding the way they live, construe their artifacts and themselves, feel and think.

The data collection was conducted by means of document analysis and semi-structured interviews. The document analysis consisted in reading the legislation about the creation of the Policy, Strategy and Informatics Strategic Plan, of the e-Government and other electronic systems. The data analysis was made with the utilization of the categorial content analysis technique.

The content analysis technique implies three fundamental phases: *pre-analysis, exploration of the material, and treatment of the results*. In this particular study, at pre-analysis stage, it is was done interview transcription. At exploration phase, speech codification and fluent reading was done. At this very same phase, categories were defined based on the defined objectives and data were collected later. In this context, there were created four categories, namely: a) services provided by the systems; b) systems positive effects; c) systems limitation; and d) proposals for systems improvement.

### History and evolution of the electronic government in Mozambique

Mozambique is pursuing three key-programs in order to get prepared and fortified to face growth, development and globalization challenges: Absolute Poverty Reduction Action Plan (PARPA), Public Sector Reform Program (PRSP), and Informatics Policy Implementation Strategy, whose main vectors are retrieved and ratified in the Government Five-year Programs (2005-2009, 2009-2014, 2014-2019). The planning, development and success of the Electronic

Government in Mozambique will depend upon and will be measured by its ability and capacity to coordinated, converge and interact with the objectives of the three programs, through utilization of the ICTs and the Internet. Apart from being an integrating element, the implementation of the Electronic Government will bring systematic changes on processes, more transparent results, improvement in data management and manoeuvre, more focused monitoring and accompaniment of projects, generalisation of trainings, and elevation of a set of public sector competences.

The changes will also impact and bring about transparency and accountability, as well as reduce corruption, codify procedures and orientations, and establish a solid foundation to offer public assistance, opportunity for voting, participating and feedback. All the projects in the scope of PARPA, Public Sector Reform, and Informatics Policy will directly benefit from all the systematic changes, impact and effects of the Electronic Government. All ministries and institutions which design and implement policies, and which are connected to and through the Electronic Government have better chances of having the objectives of their policies, programs and projects achieved at all levels (EGE, 2005:6).

Just as in other countries, the entry of Mozambique to the Information Society started in the 90s with the first “dial up” Internet services provided by *Centro de Informática da Universidade Eduardo Mondlane*, CIUEM, since 1993.

Thereafter, Mozambique adopted the digital inclusion model promoted by the Mozambican public policy for promotion of competences and computing tools manoeuvre through the Informatics Policy Committee, CPI, an organ created by the government in order to design the Mozambique Informatics Policy and the Technical Unit for Informatics Policy Implementation, UTICT, responsible for computerisation of the public sector; Technical Unit for the State Financial Management Reform, UTRAFE; Mozambique National Communication Institute, INCM, Information Bureau, GABINFO, an institution connected to the Prime Minister’s Office responsible for registering the media; and *Universidade Eduardo Mondlane*, UEM, the first public university (Sangonet, 2009). According to the document produced by Sangonet (2009), a civil society organization based in South Africa, Mozambique was one of the pioneers in Africa to recognize the importance of using ICTs for development promotion.

According to Joanguete (2015), the enthusiasm of the State for ICTs has been waning over the years to the extent of not to be the government’s priority any longer. Despite the recognition of the revolutionary importance of the ICTs for government, citizen’s involvement in political participation, and for processes and public service delivery streamlining, technologies are well regarded in all political speeches as one of the basic factors for development, poverty combat, and improvement of the Mozambicans’ living conditions.

In order to standardize as well as to adequate themselves to current demands and concepts related to the ICTs and the digital era, the country created and implemented a series of measures, such as decrees, laws, rules, policies, and development strategies that aim to keep track of the world and regional dynamics of innovation and development. From 2000 onward, the government started to include the ICTs approach in their agenda, in their planning and orientation documents, and in their development plans and programs, namely, Government Five-year Plan, Economic and Social Plan, Absolute Poverty Relieve and Reduction Plan, and Mid- and Long-Term Fiscal Scenery.

This is how, on 28 March 2000, it is created, through Presidential Decree Nr. 5/2000, the Public Sector Reform Inter-Ministerial Committee, also known as CIRESP, reporting to the Council of Ministers, the committee which designed the EGRSP. On 4 April 2000, through Presidential Decree Nr 6/2000, it was created the Technical Unit for Public Sector Reform, also known as UTRESP, aimed to assist the operation of CIRESP and assure an integrated planning, coordination, articulation, and accompaniment of reform programs and projects.

On 25 June 2001, it is officially launched by the former President of the Republic of Mozambique Joaquim Chissano the **Public Sector Reform Global Strategy** (EGRSP) in Mozambique, which is the key and orienting document for all policies, plans and strategies for the country’s social and economic development.

It is important to underline that the EGRSP is also the operating-basis document for successful implementation of all programs, plans, policies, resolution, decrees as well as sector strategies of the whole public sector in Mozambique. That is why the EGRSP as well as the Informatics Policy Implementation Strategy, the Mozambique Science, Technology and Innovation Strategy, and the Mozambique Electronic Government Strategy already foresee the creation and implementation of electronic portals and websites,



electronic platforms and online citizen and businesses services in order to promote and galvanize Mozambique social and economic development.

The EGRSP recommended the following:

- Public Sector modernization with high incorporation of technology (EGRSP, 2001:62);
- Promotion and dissemination of e-mail in the Public Sector as an embryo for Internet and e-Government, which includes electronic portals, websites, electronic platforms, software and hardware (EGRSP, 2001:62).

As consequence of the EGRSP dynamic, there were approved the following orienting legal instruments:

The Government of Mozambique approved, through **Resolution Nr 28/2000, of 12 December, the Informatics Policy**, aimed at including Mozambique in the ICTs world, which has the Internet as its highest exponents. The Informatics Policy offers a framework of principles and objectives which may allow *“information and communication technologies to be the driving force for various aspects of national development, contributing to absolute poverty reduction and general improvement of the lives of the Mozambicans; to a wider citizen participation in the Global Society of Information; to government improvement and democracy further development; to its participation in the world economy, increasingly founded on information and knowledge* (Resolution Nr 28/2000, of 12 December).

**The Informatics Policy Implementation Strategy (EIPi)** was approved in 2002 by the Government of Mozambique. With the implementation strategy, it is intended to make ICTs a decisive instrument for materialization of the Government Plan and the Absolute Poverty Reduction Action Plan (PARPA) as well as the full accomplishment of the Informatics Policy objectives, namely (EIPi,2002:3):

- To contribute to absolute poverty reduction and improve the living conditions of the Mozambicans;
- To contribute to illiteracy fight and to accelerate human resources development;
- To provide citizens with universal access to information and world knowledge;
- To raise public and private institutions efficiency and efficacy;
- To improve public government and administration;

- To create a favourable legal and business environment for production and dissemination of information and communication technologies; and
- To make Mozambique an active and competitive partner in the Global Society of Information and in the world economy.

In 4 February 2005, through Presidential Decree Nr 13/2005, it was created the **Ministry of Science and Technology (MCT)**, emphasizing therefore the component of science and technology for development.

In 2006, the Government of Mozambique approved the **Mozambique Science, Technology and Innovation Strategy (ECTIM)**, aimed to establish a framework conducive to the achievement of strategic objectives and programs that promote the development of an articulated system of science, technology and innovation. With ECTIM it is pursued a science and technology that contributes visibly to poverty reduction, to economic growth and improvement of the lives of the Mozambicans.

The ECTIM is based on the following vision and mission:

- Vision: All Mozambicans have the right of access to and equity in the utilization of science, technology, innovation, and information and communication technologies in order to accelerate the process of wealth creation, poverty eradication, and, thereby, to accelerate the improvement of the quality of life.
- Mission: To promote the delivery of scientific and technological solutions in strategic areas of development defined in the Government Five-year Program (2005-2009), in PARPA, in 2025 Agenda, and in other national development documents, aiming to raise the quality of life of Mozambican citizens (ECTIM,2006:7).

Since 2000, the Ministry of Higher Education, Science and Technology is created, and in June 2003, the Council of Ministers approved the Science and Technology Policy (PCT). In 2006, it is published the Mozambique Science, Technology and Innovation Strategy. It is noticed in these two documents the great Government's interest in creating infrastructures that will allow access to ICTs at a large national scale.

The Mozambique Electronic Government Strategy (EGE) was approved in 2006 by the Council of Ministers. EGE is an extremely important document in this ICT era.

EGE serves as an instrument which is more adequate for placing public services within any citizen's reach, at any time and any place, for a more effective, efficient and less costly service provision, and for the decrease of bureaucracy and corruption opportunities. In the last resort, Electronic Government may be transformed into a powerful instrument for the fight against poverty and for achievement of the Millennium Development Goals (EGE,2006:5).

In 2007, there were created through Decree 24/2007 of 5 July, named after CRCT, three Sciences and Technology Regional Centres, namely, headquarters Maputo-South Region, Nampula-North Region, and Beira-Central Region, in order to coordinated sciences and technology activities. In 2007, there were also created in all provinces of Mozambique the Provincial Digital Resources Centres, named after CPRD.

### Main Progress Made

In recent decades, the ICTs have played an important role in boosting Mozambique development. Among the main developments the following are highlighted:

#### Education

- Inclusion of ICTs in the curriculum;
- Development of higher education programs in the ICTs area;
- Implementation of the education sector technological plan;

#### Business Sector

- Development of business and professional associativism;
- Development of private accelerators and incubators;
- Software and hardware development;
- Private sector modernization;

### Science and Technology Park

- The Science and Technology Park built by the Government of Mozambique in Maluana, Maputo Province, consists of infrastructures and management services for production, development and dissemination of knowledge, as well as for the establishment and development of science and technology-based companies. It is open for academy services, private and public sector, civil society and local community. It consists of three main areas: technology-based businesses incubator, a teaching and learning centre, and company hosting (Information Society Policy, 2018:4).

It is important to refer that all government organs and agencies, as well as Government programs and plans were created in order to accommodate and implement the ICTs policy for Mozambicans social and economic development. We present Figure 1 below which addresses the execution and evolution diagram of the plans and strategy, from the macro plan to EGRSP, passing through the intermediaries, EGE, PARPA, ECT, PQG up to the micro plan, which is the effective creation and implementation of other several sectoral electronic platforms of the Public Sector.

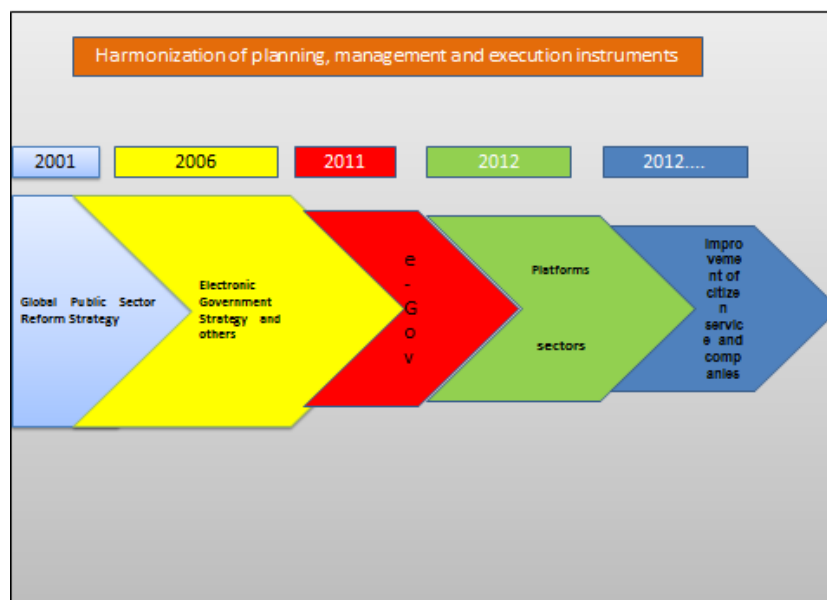


Fig.1: Execution and evolution of plans and strategy up to the other sectoral electronic platforms of the public sector.

As it was previously mentioned, post-independence Mozambique presented a poor administration, firstly because of the former colonial administration dismantling, followed by the civil war until 1992. According to CIP (2008), the Mozambican public sector presented operating problems caused by excessive bureaucratization, an obsolete legal framework and low qualified people coupled with a poor human, financial and material resources management, what, to some extent, might create conditions for corruption activities.

To make public administration more effective, in other words, to operate better and less costly, the Mozambique State introduced reforms in the Public Sector in 2001, for a period of 10 years, and for its execution it was designed the Public Sector Reform Global Strategy. It is in the context of these reforms that the Government approved, on 11 July 2006, the Electronic Government Strategy, according to the Report about the Level of Implementation of the Electronic Government Strategy (2015), as a result of a long period of work and collaboration between the Policy Committee (CPInfo) and the Public Sector Reform International Committee (CIRESP), through their technical units (i) Technical Unit for Informatics Policy Implementation (UTICT), later transformed into National Institute of Communication and Information Technology (UTICT), and (ii) the Technical Unit for Public Sector Reform (UTRESP) – in an exercise assisted by a team of national and international consultants, and funded by the United Nations Department for Economic and Social Affairs (UNDESA).

This instrument results from the implementation of the Informatics Policy and Strategy, which defined, among other priority areas, the Electronic Government, with the goal of raising the efficacy and efficiency, reduce operating costs and corruption, as well as raise the public servants' responsibility. The motto of the Electronic Government aims to *"place public services next to the citizen"* (Mozambique Electronic Government Strategy, 2005, p. 1), with an overview that when implementing the *"Electronic Government Strategy would give to any Mozambican in any government area, in any sector of the Economy, and at any level of the society the right to access, process and apply all the required information to achieve the maximum level of their potential as an individual with knowledge, a responsible citizen and a global competitor"* (EGE, 2005, p.11).

To this end, there is the need of modernization and computerization of administrative procedures for faster

public services and significant reduction of the influence of human factor in the conduct of proceedings and authorization of tax and fee collection, and in other situations of direct contact of the citizen with the public administration. Bearing in mind all the factors that govern the conception, the implementation of the Electronic Government Strategy had the fundamental goal of improving the public service provision, through the utilization of Information and Communication Technologies, in line with the Public Sector Reform Global Strategy. In this context, the following point analyses the main achievements in the scope of the implementation of the Electronic Government Strategy.

### Electronic Government Main Achievements

The Report about the level of implementation of the Electronic Government Strategy (2015) presents some achievements in the scope of the Electronic Government Strategy worth bringing into discussion. The Electronic Government, according to the report, was one of the priority areas of the Informatics Policy Strategy which aimed to:

- Raise efficacy and efficiency; to reduce operating costs; to reduce bureaucracy and corruption, as well as to reduce public servants' responsibility;

The Technical Unit for Informatics Policy Implementation was moved to the National Institute of Information and Communication Technologies (INTIC) in 2011, and currently to the National Institute of Electronic Government. This institute reports to the Ministry of Science and Technology and it has been acting in different fronts, especially infrastructure and access to Internet services, capacity building, and consolidation of an integrated environment of information systems and databases devoted to provision of quality services to citizen, while progressively consolidating the Mozambique Electronic Government. This institute is informing and strengthening policy formulation and monitoring, resulting in good governance at all Government level. In order to respond to challenges, several institutions started to develop and implement information systems which currently contribute to the materialization of the Electronic Government in Mozambique.

The report points out to the following main achievements:

- i. Attitude change among the State employees and;
- ii. Improvements in public services provision to the citizen,

- iii. Territorial extension of the Government Electronic Network (GovNET), which currently reaches all capital cities, and from there to some districts;
- iv. Increase of the State employees and citizens' knowledge of the utilization of the various services and tools through the ICTs.

In relation to connectivity, the report recommends every Government network to be connected to the same Common Communication Platform in order to share resources and electronic services. The Government Portal ([www.portaldogoverno.gov.mz](http://www.portaldogoverno.gov.mz)), according to the report, represents one of the flags of the GovNET and it is the starting point towards the Electronic Government. It has the capacity to provide with important information just in time to the Government, private sector, and mainly to the citizen. In this journey, the following were the success factors: great political will; leadership of the process from the top, with in-depth auscultation of the society regarding the needs to be satisfied; great ability to mobilize aid from international organizations for national development plans, allocation of a centralized fund in order to assure the State electronic communications, resulting in greater efficiency and saving; great dedication and commitment of the staff responsible for execution of defined programs.

The evaluation also found out that Mozambique was internationally recognized as the African country with the best Informatics Policy from 2004 to 2005; with the highest level of e-Participation from 2006 to 2007 and as the country with a Government Portal highly centered to the citizen in 2009 (Jóse, 2014).

### **Current situation of the Electronic Government in Mozambique**

The Informatics Policy priority areas were many, among them the Electronic Government is highlighted, which was responsible for increasing the efficacy and efficiency of services provided by the State institutions and other entities, through utilization of ICTs. In this context, the Electronic Government implemented the anchor project, Communication Common Platform and the Interoperability Framework, a tool that assures the establishment of the public sector data communication infrastructure and necessary interoperability for various systems, aiming at better citizen satisfaction. From the platform, it was possible to create the Government Electronic Network (GovNET), which according to the Report, it is a Government of Mozambique data communication private network which interconnects public institutions at Central, Provincial,

District and Municipal level, with a vision that until 2016 all the Government networks should be connected to a common communication platform for sharing resources and electronic services.

### **Analysis of the contribution of digital platforms implementation**

The approval of the Informatics Policy in 2000 through Resolution Nr 28/2000, of 12 December paved way to the creation of the Mozambique Electronic Government – e-Gov. These instruments caused the creation and implementation of other sectoral digital platforms for licensing and service provision to the citizen and companies, namely: e-BAÚ, MCNet (Mozambique Community Network), e-SISTAFE, e-CAF, e-Tributação, Moztis, e-CREL and Muhlbauer ID Services, whose contribution we will be analyse below:

### **Sophisticated Electronic Government services available to citizens and companies**

The introduction and implementation of digital platforms in the Mozambican public sector allowed the creation of various services available to the citizen and companies which are presented below:

#### **The e-BAÚ system**

In 2015, BAÚ benefit from installation of computer software/program, a modern system using Internet, the IGRP (Integrated Government Resource Planning) for commercial activity licensing called e-BAÚ, or electronic shop, one stop shop – Integrated Platform for licensing and service provision to the citizen – Citizen Portal, reducing waiting time and accelerating the administrative procedures. The Electronic Government public services available electronically to the citizens are the following:

- Issuance of wholesale, retail and industrial commercial license;
- Issuance of simplified license and mere advance communication;
- Issuance of internal and external trade license;

#### **MCNet system (Mozambique Community Network)**

In 2011, it was created and implemented the MCNet, which consists in a public-private partnership which manages the technological application Single Electronic Window (JUE). JUE system is composed of two distinct IT subsystems which interact with each other: CMS and Tradenet. The CMS (customs management system) is a customs management platform. This system belongs to the Ministry of Economy and Finance – Mozambique Tax Authority –



ATM. The Electronic Government public services electronically available to citizens are the following: to process customs clearance of goods – issuance of customs declaration.

#### **e-SISTAFE (State Financial Administration Electronic System)**

It is an electronic platform introduced and implemented in 2005 which allows the processing of various payments, system safety proceedings, as well as registration and maintenance of users' bank address, and tracking all financial transactions made with reliable safety. It allows to make managers and other intervenient accountable in case of defrauding the State.

Apart from e-Sistafe, there is the e-CAF, one of the modules of e-Sistafe. The Electronic Government public services electronically available to citizens are the following:

- Processing of various payments, salaries, subsidies, allowances, per diems;
- Operating expenses processing and payment;
- Investments processing and payment;
- Processing and payment of provision of various services;
- Revenue processing;
- Processing of electronic registration of State staff and agents.

#### **e-Tributação**

It is an electronic platform from the Ministry of Economy and Finances, DAF – Fiscal Sector Directorate. This system is further divided into two, one is for tax and fees payment and the other is for NUITs. The Electronic Government public services electronically available to citizens are the following:

- Processing and payment of tax and fees, such as Corporate Income Tax, Personal Income Tax and VAT.
- Personal and corporate NUITs processing and issuance.

#### **Mühlbauer ID Services Electronic System**

It is an electronic platform for biometric format identification document issuance, and it was created and implemented in 2018. The system is further composed of 2 subsystems, one for personal identification document and the other for foreign trips document. This platform belongs to the Ministry of Interior, the Civil Identification Directorate (DIC) and the National Migration Services – SENAMI. Apart from these two systems, there is the Scheduling and

Validation Management System – SIGAV, for scheduling and audiences. The Electronic Government public services electronically available to citizens are the following:

- Identification Documents (IDs) processing and Issuance;
- Processing and issuance of Passports, visas, emergence travel documents and *DIRE* (Expatriate Identification and Residence Document);
- Online audience scheduling to request any document through SIGAV;
- SMS notification services about the date of a scheduled audience and reception of documents.

#### **Moztis System – Virtual Counter**

It is an electronic platform created and implemented in 2017, as a virtual counter aiming to enable the issuance of biometric documents for vehicle and automobile driving license. This system belongs to the Ministry of Transports and Communications – the National Institute of Highway Transports - INATTE. The Electronic Government public services electronically available to citizens are the following:

- Driving licenses processing and issuance;
- Control of fines for Highway Code infringement;

#### **e-CREL**

It is an electronic platform created and implemented in 2016, and is used for corporate registration. This platform belongs to the Ministry of Justice and Constitutional Affairs – Legal Entities Registration – CREL. The Electronic Government public services electronically available to citizens are the following:

- Processing and searching for the name of the company which is intended to be opened;
- Processing and issuance of company name booking;
- Processing and issuance of permanent registration certificate;
- Processing and issuance of commercial certificates;
- Processing and issuance of corporations' statements.

#### **Contribution of Digital technologies implementation**

The benefits of the Electronic Government constitute a great contribute to the Mozambique social and economic development process.

The revolution brought by the ICTs is a reality in Mozambique and the rest of the world, and it has significant impacts in history and way of living, working and interacting with mankind (Política Para Sociedade de Informação, 2018:1).

The approval of the PSI brought changes associated to other development initiatives in place in the field. In line with the Government plans, they made the country a more inclusive society. The PSI provided the vision, mission, goals and a framework of principles which allows the ICTs to assume a leverage role for Mozambique social and economic development, promoting poverty reduction and improvement of the Mozambicans' living conditions and competitiveness in the corporate sector and further economic growth; modernization of the State and service provision to the citizen, and greater social justice through democracy consolidation and promotion of transparency (Politica Para Sociedade de Informacao, 2018:2).

Some of the problems which the former Mozambique public administration presented before the introduction and effective implementation of digital platforms in the public sector were corruption activities, excessive administrative bureaucracy, very slow citizen and corporate service provision, complex requisites and procedures for documents acquisition, and high operating costs.

Our interviewee (E1), who was asked about the contributes of the implementation of digital platforms said, *"The introduction of electronic systems in the Public Sector brought about improvements in service provision to the citizen in terms of speed and desired quality"*.

In turn, the second interviewee (E2) said, *"it as a good idea, once it enabled speed in proceedings; it reduced considerably the waiting time for conduct of proceedings"*. Similarly, the sixth interviewee commented saying:

*The electronic platforms are meant to improve, simplify, loosen and accelerate operations in procedural protocols, and in social and economic activities; my assessment is positive once with the implementation of these electronic systems, if all platforms intervenient of the process are working on the platform, it is possible to obtain, in a few hours or a few days, licenses, passports, visas, DIREs, NUITs, driving licenses, IDs, declarations of payment of tax and fees, VAT, IRPC, IRPS, custom's clearance declaration. They are so fast if the internet is working properly. Likewise, he said that the clients and economic agents are satisfied with the introduction*

*of digital platforms because in a few days they can have their documents ready. (E6)*

Furthermore, the other interviewee corroborated saying that, *"we welcome the introduction of platforms, once it partially reduced bureaucracy and corruption problems; the facilities presented by the system improved slightly, since spots of corruption and bureaucracy prevail at certain moments"* (E7). This thought was shared by the last interviewee when admitting that, *"indeed I have the same opinion that decision making process for documents acquisition has improved"* (E8).

According to the Policy for Information Society, the benefits of the ICTs in Mozambique are truly visible, as it can be seen in some of the examples presented below:

- Time and money saving through the utilization of Internet;
- Greater knowledge and education;
- Increase of access and satisfaction with public services;
- Reinforcement of productivity and profitability efficiency;
- Diversification of opportunities, new markets and clients;
- Increase of public services efficiency, efficacy, productivity and transparency;
- Improve of the State administrative and financial management;
- Dissemination of information and promotion of participatory government through electronic means;
- Reduction of social exclusion;
- Reduction of poverty factors;
- Reduction of State and user's costs of internal operation, Public Sector service provision (Politica Para Sociedade de Informação, 2018, p.2).

### III. DISCUSSION

The results of the present study show that, on the whole, the contribution of digital platforms in Mozambique Public Sector brought changes in service provision to the citizen and entrepreneurs who look for those services, both in reduction of procedures, number of documents required and/or presented in order to benefit from services, reduction of waiting time for document acquisition and of costs of acquisition, with consequences of the cause and effect binomial, considerable increase of revenue to the State

Treasury, that is, in fact, the introduction and effective implementation of electronic platforms in the Public Sector, simplified, and accelerated the administrative procedures in relation to the requests presented by citizens and entrepreneurs.

A similar study conducted recently by the Public Sector Reform Inter-Ministerial Committee, which led to the conception of the Policy for Information Society (PSI) in Mozambique (2018), revealed that *“the revolution brought by the ICTs is a reality in Mozambique and it has significant impact in history, way mankind lives, works and interacts”*.

Likewise, there were considered benefits of the ICTs in Mozambique when referring that, *“in fact, the benefits of ICTs in Mozambique are already visible in various fronts, namely, saving of time and money with Internet-based resources, reinforcement of efficiency, productivity, and consequently, of the profitability and increase of efficiency, efficacy, productivity and transparency of public services (Política para a Sociedade de Informação em Moçambique, 2018:1).*

The present research, apart from analysing the contributions of the implementation of digital platforms to the improvement of service provision to the citizens and entrepreneurs in the Public Sector, it also analysed the limitations of the systems under study. It was found that some of them present gaps and weaknesses, for instance, in detecting false documents, lack in interoperability with other electronic platforms of the Public Sector and private organizations, which can contribute to system manipulation and bring prejudices at the social, political and economic level.

Gouveia (2004) states that the interoperability of ICT-based systems, sharing and reutilization of information and integration of administrative processes, both at internal and external level of the public sector organizations is essential for assuring high quality, innovation and transparent services and client/citizen centredness.

Interoperability results in a fundamental requisite for development of efficient and effective services, both from the economic and technical perspective (Gouveia, 2004, p.40).

According to the *Política para a Sociedade de Informação em Moçambique* (2018), it was found weak dissemination of the electronic government and their respective sectoral digital platforms. Therefore, it was launched the society awareness raising process about the role and potentialities of the ICTs as a leverage for social and economic development.

From the author's perspective, to improve operation of the Electronic Government program and their sectoral digital platforms in the Public Sector, there is a need to solve the new challenges imposed by the increasing ICTs progress, namely: to reduce bureaucracy and unnecessary interactions between the citizen and the staff operating the electronic systems; to enable online services provision to citizens and companies, decrease of crowds (waiting queues and time), citizens and companies that search for in-person services with the introduction of digital platforms, and, consequently, to reduce corruption rates; reduce physical contact between public sector staff and citizens and companies; to take advantage of and to use technology in order to improve service provision and public sector performance; to disseminate services provided by the public sector; increase transparency between citizens, companies and the public sector; increase public sectors efficacy and efficiency, and effective implementation of the Mozambique Policy for Information Society, and Information Society Strategic Plan, as well as to identify and disseminate tools, techniques and good practices do public managers; and effective implementation of the electronic government interoperability framework.

Campelo (2006) yet considers that a program has the opportunity to improve its performance regarding public service provision focusing on the citizen, when orienting public organs to be better ware of their electronic services target group, and to be better aware of the needs and opinions about the quality of these services.

#### IV. CONCLUSIONS

The present study aimed to analyse the contribution of the implementation of digital platforms to the provision of services to the citizen, entrepreneurs in the public sector, in Nampula City and Province, in Mozambique. The results of the study presented indicate that these electronic platforms (Mulhbauer ID, MozTis, e-CREL, *e-Tributação*, MCNet, e-SISTAFE, and e-CAF) brought significant changes in electronic government and in the public sector in Mozambique, in a way that there was decrease in waiting time, procedures and costs to obtain documents.

The aforementioned decrease improved significantly service provision to the citizen and entrepreneurs by means of simplification, loosening and speed of administrative procedures and, as consequence, there was saving of time and money when resorting to Internet-based services; there was reinforcement of efficiency, productivity and profitability,

and increase of public services efficacy, efficiency, productivity and transparency; and there was improvement of financial and administrative management.

Notwithstanding, it was also found that the electronic platforms under analysis present some limitations and weaknesses that for not to be able to detect false and out-of-date documents and for not to be interconnected with systems from other institutions (e-Banking, Mulh Bauer ID, MozTis, e-CREL, e-Tributação, MCNet, e-SISTAFE, and e-CAF), they show vulnerability worth to be corrected.

Gouveia (2004) warns that the focus of e-government must not be the Information and Communication Technologies, but their use, which when combined with organizational changes and new competences, they improve public service provision, public policies, and the exercise of democracy, being them the real sense of e-government (thus being both the e-government and the ICTs instruments for a better and more efficient and effective government).

The gaps, weaknesses, limitations and delay in effective implementation of some digital platforms' interoperability may cause social, political and economic problems.

Given these findings, it is suggested that measures to solve these problems are taken so that the digital platforms start operating fully and with the desired quality (implementing the interoperability mechanisms that allow data cross-checking and controls for detection and confirmation of information allowing screening, amongst others, the use of false or inexistent documents).

The present study was conducted with digital platforms from the city and province of Nampula. Meanwhile, a major share of what is presented allows generalization of these results to be made to all the institutions which use the digital platforms analysed, in the Mozambican context.

## REFERENCES

- [1] Brito, C. S., Borges, P., & Tavares, J. M. (2015). O uso das TIC na Administração pública – estudo de caso na secretaria da receita do Estado da Paraíba. *Revista Eletrônica da FAESNE*, 1(2), 53-65.
- [2] Campelo, V. (2006). Avaliação do Programa Governo Eletrónico. Tribunal de Contas da União. Nova Série. Brasília, Brasil.
- [3] Decreto n.º 5/2000 de 28 de Março, cria Comissão Interministerial da Reforma do Sector Público.
- [4] Decreto n.º 6/2000 de 4 de Abril, cria Unidade Técnica da Reforma do Sector Público.
- [5] Decreto n.º 24/2007 de 5 de Julho cria os Centros Regionais de Ciência e Tecnologias.
- [6] Decreto n.º 50/2002 de 26 de Dezembro cria a Unidade Técnica da Implementação da Política de Informática.
- [7] Decreto n.º 32/2006 de 30 de Agosto cria Conselho Ciência e Tecnologia.
- [8] Decreto no. 34/2013, de 2 Agosto, aprova do Regulamento do Licenciamento de Actividade Comercial.
- [9] Decreto n.º 22/2014, de 16 de Maio aprova o Regulamento de Licenciamento Industrial.
- [10] Decreto 97/2013, de 31 de Dezembro aprova o Regulamento de Empreendimentos Turísticos, Restauração e Bebidas e Salas de Dança.
- [11] Decreto 39/2017 de 28 de Julho aprova o Regulamento para o licenciamento simplificado e a Certidão de Mera Comunicação Prévia.
- [12] Estratégia Global da Reforma do Sector Público, Maputo-2001
- [13] Estratégia de Ciência, Tecnologia e Inovação de Moçambique, Maputo-2006
- [14] Estratégia de Governação Eletrónica de Moçambique, Maputo-2006
- [15] Estratégia de Implementação de Política de Informática de Moçambique, Maputo-2002
- [16] José, M. L. (2014). Governo Electrónico em Moçambique: uma análise do grau de implementação: o caso do BAÚ e do e-SISTAFE, 2006-2013. (Dissertação de Mestrado). Universidade Eduardo Mondlane, Maputo.
- [17] Relatório de Actividades do e-Gov (2013). Instituto Nacional de Tecnologias de Informação e Comunicação. Maputo.
- [18] Relatório Quinquenal (2014-2019) das actividades realizadas pelo BAÚ de Nampula-2019.
- [19] Resolução n.º 28/2000 (2000). Política de Informática. Conselho de Ministros. Maputo: Imprensa Nacional de Moçambique: 3º Suplemento do Boletim da República, I Série – Número 49.
- [20] Resolução n.º 1/2018 (2018). Política Para a Sociedade de Informação de Moçambique. Conselho de Ministros. Maputo: Imprensa Nacional de Moçambique: Boletim da República, I Série – Número 122.
- [21] Gouveia, L. (2004). Local e-government: a governação digital na autarquia. Livro V – Coleção Inovação e Governância nas autarquias. Dezembro de 2004. SPI – Principia. ISBN: 972 8589 41 7.
- [22] Joanguete, C. (2011). Política Pública sobre a Inclusão Digital.
- [23] Mateus, J. C. (2008). O Governo Electrónico, a sua aposta em Portugal e a importância das Tecnologias de Comunicação para a sua estratégia.
- [24] Nielsen, F.A.G, Olivio, R.L.F, & Morilhas, L.J. (2018). Guia prático para elaboração de Monografias, Dissertações e Teses em Administração.



- [25] Xavier, I.J.A (2015). Serviços Online da Administração Pública para o Empresário: Balcão Único Eletrónico.
- [26] Plano de Alívio para a Redução da Pobreza Absoluta.
- [27] Projeto de Governo Digital da OCDE(2018):Promovendo a Transformação Digital dos Países Africanos de Língua Oficial Portuguesa e Timor-Leste (PALOP-TL).