https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

The impact of the implantation of *e-BAÚ* platform for commercial licensing in Nampula

Almeirim Deus Da Incarnação Jaime Nacarapa[1], Luís Borges Gouveia[2]

[1]Doctoral Student in Projects – Corporate Development and Business Management at FUNIBER-UNINI – Universidade Internacional Iberoamericana do Mexico.
Masters in Touristic Management and Consulting (Field of Business Organization, Managing Development and Human Resources) by FUNIBER – Fundação Universitária Iberoamericana da Espanha. Nampula One-Stop Shopemployee.
[2]Luis Borges Gouveia. Completed the Academic Title of Aggragate in 2010 by the Universidade de Aveiro and the Doctorate in Computer Sciences in 2002 by the Lancaster University (United Kingdom) and the Masters in Electrotechnical and Computers Engineering in 1995 by the Universidade do Porto. Full Professor at the Universidade Fernando Pessoa.

***Abstract*—** *This study analyses the impact of the implementation ofe-BAÚ platform for commercial licensing at the One-Stop Shop located in Nampula, Mozambique, in the period of 2014-2018. The e-BAÚ was introduced in 2014 as a result of the Mozambican Public Administration Reform and the improvement of the National Informatics Policy. In order to achieve the objective of this study, the following question was defined: to what extent does the implementation of the Electronic One-Stop Shop contribute to the improvement in the provision of public services? Methodologically, the study is document based with a qualitative nature and it involved six interviewees and it used the thematic content analysis technique for data analysis. The obtained results indicate that the implementation of the e-BAÚ allowed the principles of speed, debureaucratization, flexibility in commercial licensing processes to be achieved, in addition to support revenue generating for the State Treasury. Despite these advances, it is understood that the e-BAÚ still requires the creation of a quality platform that has interoperability capacity with other sectors and institutions of the State or the private sector that are part of the commercial licensing process and that has the capacity to detect false and expired documents avoiding fraud and errors.*

***Keywords*— Public Administration, Electronic One-Stop Shop, Debureaucratization, e-BAÚ, e-government, interoperability.**

***Resumo*—** *Este estudo analisou o impacto da implementação da plataforma e-BAÚ do licenciamento comercial no Balcão de Atendimento Único localizado em Nampula, Moçambique, no período de 2014-2018. O e-BAÚ foi introduzido a partir do ano de 2014 na sequência da Reforma da Administração Pública Moçambicana e do aprimoramento da Política Nacional de Informática. Para o alcance do objectivo deste estudo, foi definida a seguinte questão: em que medida a implementação do Balcão de Atendimento Único Electrónico contribui para a melhoria na prestação dos serviços públicos?Metodologicamente, o estudo é documental e de natureza qualitativa e envolveu seis entrevistados e empregou a técnica de análise de conteúdo temática para a análise dos dados. Os resultadosobtidos sinalizam que a implementação do e-BAÚ permitiu alcançar os princípios de celeridade, desburocratização, flexibilidade nos processos de licenciamento comercial, além de gerar receita para os Cofres do Estado.Apesar desses avanços, entende-se que o e-BAÚ ainda requer a criação de uma plataforma de qualidade que tenha capacidade de interoperabilidade com outros sectores e instituições do Estado ou entidades privadas que fazem parte do processo de licenciamento comercial e que tenha capacidade de detectar documentos falsos e fora de prazo, evitando a ocorrência de fraude e erros.*

***Palavras-chave*— Administração Pública, Balcão Único Eletrónico, Desburocratização, e-BAÚ, governo electrónico, interoperabilidade.**

https://dx.doi.org/10.22161/ijaers.79.54 ISSN: 2349-6495(P) | 2456-1908(O)

I. INTRODUCTION

The beginning of the 90s marks the emergence of the Information Era thanks to the tremendous impact caused bytechnological development and by the Information and Communications Technologies (ICTs). In the Information Era, the financial capital grants throne to intellectual capital. Knowledge becomes the new wealth, the most valuable and important organizational resource (Chiavenato, 2008). For this author, the Information Era brought the concept of virtual office and non-territorial. The ICTs allow the compression of time. Communications become mobile, flexible, fast, direct and in real time, allowing much time for attention to the client. Chiavenato still considers that the ICTs profoundly modify the work in and outside organizations in their relationship. The connection to Internet and the adoption of intranet, as well as the internal communication networks intensify the economy globalization through the globalization of information as well. In this new era, the more powerful the information and communications technology, the more informed and powerful the users become, be it a person, organization or a country. Information becomes the main source of energy of a organization: its main fuel and the most important resource or input. Consequently, information may guide all the efforts and indicate the courses to be followed.

These transformations make the world increasingly globalized and involve new demands to the economies, organizations, both private and public. Mozambique is not unconnected to this new reality. It is in this context that, since 2000, the country adopted the new technologies promotion and expansion policy that considers its potential for development. In this context, the Education Technological Plan (*PTE* from Portuguese) presents an integrated policy approach, with a solid strategic vision and an action framework that intends to articulate and mobilize the financing and implementation ecosystems around a strategy whose implementation will promote, not only the improvement of the education system, but also the economic and social development (*Ministério da Educação* [MINED], 2011). In other words, the Government of Mozambique approved, through the Resolution no. 28/2000, of December 12, the Informatics Policy, with the objective of including Mozambique in the world of the Information and Communications Technologies (ICTs) which have the Internet as their highest exponent. The Informatics Policy offers an array of principles and objectives that may allow *"the ICTs to be the driving force behind the various aspects of national development, contributing for absolute poverty eradication and general improvement of the lives of Mozambicans; for the broadest citizen participation in the global society of information; for the increase of the effectiveness and efficiency in services provision; for governance improvement and democracy further development; for its participation in the global economy, increasingly based on information and knowledge".*

The Informatics Policy Implementation Strategy indicates as the main vectors in relation to the governance area: electronic network for all the Central and Province Government Bodies and Departments; presence on *Internet* of all Ministries and other State Agencies; centralized and uniform databases related to human resources, public accounting, assets and legislation.

In compliance with the Informatics Policy, it is created of the Electronic Government (*e-Gov)* in Mozambique, in 2011, through the Government of Mozambique Quinquennal Programme (2005-2009), with the objective of driving the creation of other specificand sectoral platforms in order to improve the provision of services to the citizen. The e-government constitutes an effort to improve the public sector, strengthening communication technologies and their social tools, and improving information and the social service. An effective change is based onhuman resources leadership and in the collective intelligence of allinvolved agents taking advantage of the potential promised by an interconnected and interdependent vision of the world (Lane & Roy, 2002). In turn, Gouveia asserts that the e-government is the utilization of information technology to support the Government and Public Administration operations, involving citizens, and promoting electronic-based services that relate the political power and Public Administration with the citizen andcompanies (Gouveia, 2004, p.21).

In terms of importance, Mateus (2008), asserts the following:

> The Electronic Government has assumed an increasing importance in current society, becoming a vital process for the modernization of the Public Administration and its high priority is the improvement of the quality of public services provided by the Public Administration through the utilization of ICTs (p. 125).

The e-Government constitutes an effort to improve the public sector, strengthening the communications technologiesand their social tools and improving

https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

information and public service, what is confirmed by Lane & Roy (2002). As a response to the level of fulfilment of the implementation of the *e-Gov* in Mozambique, in 2014, it was implemented the *e-BAÚ* system, also known as Integrated Platform for Service Provision to the Citizen designed for economic activities online licensing, which is the object of study and analysis of this paper.

The Government of Mozambique conceived, approved and implemented the *e-BAÚ* project, through the Business Environment Improvement Strategy I (EMANI – 2008-2012) as a means of operationalization of the Electronic Government Strategy (*e-Gov)* in order to rationalize the utilization of information technologies in the Public Sector, whose aim is to improve the quality of services and accountability to their citizens.From their point of view, the system focuses on the relationship between the BAÚ andeconomic agents in Service Provision to the citizen in commercial activity licencing.

The implementation of *e-BAÚ* aimed to improve public services provision through simplification, flexibilization, and speed in the administrative processes related to the requests presented by the citizen, assure Government efficiency and provide access to information in order to facilitate the private sector activities and simplify the life of the citizen. This action made the activities flexible, enabling faster responses to the citizen than before its implementation.

Based on what was described, the following research question was raised: what are the impacts of the implementation of the *e-BAÚ* system in Nampula from 2014 to 2018? On the basis of this question, this study aimed to analyse the impacts of the implementation of the *e-BAÚ* system in Nampula Province, in Mozambique.

This study is academic and professionally motivated. Professionally,the author is part of the employees of the One-Stop Shop (BAÚ), what motivated him to understand and improve the functioning and the effects of the system under study, on the one hand. On the other hand, the research is part of his Doctorate thesis. Therefore, the results depict the level of efficiency and effectiveness of the system under analysis in order to contribute to its improvement, what may allow better service provision with safety and effectiveness, and generate revenue for the institution under investigation.

II. METHOD

This study is exploratory and qualitative. Its exploratory nature is based on the fact that the topic under study is less explored in Mozambique, especially in Nampula, the place of study. For Minayo (2014) a qualitative research is that research that devotes itself to the study of history, relationships, representations, beliefs, perceptions and opinions, products of the interpretations thathumans make about the way they live, build their artifacts and themselves, feel and think. In this context, the option for a qualitative research sought to understand, from the employees who operate the *e-BAÚ* system, its efficiency and limitations. Besides, it is considered a qualitative research due to the number of participants, the data collection technique (interview) and data analysis technique (content analysis) which are further described.

The data were collected through document analysis and semi-structured interviews. The document analysis consisted of the study of the legislation about the creation of the National Informatics Policy, e-Government, e-BAÚ and the institution report aiming at understanding the missions, objectives and purposes of the system under study. The interview was administered to six subjects, among them State employees, private sector economic agents from the Economic Association Confederation – Provincial Economic Council, scholars and researchers on Mozambican public administration reform. The choice for interview is justified by the fact that it is considered as one of the widely used tools in qualitative research (Minayo, 2014; Sionek, Assis & Freitas, 2020), and having become a broadly used technique in the context of human and social sciences, being considered as the most privileged in the study of perceptions about feelings, artifacts and activities.

Through empirical saturation technique, six subjects were interviewed individually, among them, one Chief Executive Officer, one officer from the Department of Economic Analysis, one officer-trainer, one lecturer and Reform Specialist, one Public Sector Reform officer and one Economic Advisor, all of them male working in public and private sector in Nampula city, in Mozambique.

Categorical content analysis was the technique employed for data analysis. Content analysis is a group of techniques for the analysis of communications, based on systematic and objective procedures, aimed at obtaining description of the content of messages, and indicators (quantitative or qualitative) that allow for inferences of knowledge related to the conditions of production/reception (inferred variables) of the messages (Bardin, 2011). The use of content analysis implies three essential stages: *pre-analysis, exploration of the material, and treatment of the results.* In this study, the interviews were transcribed in the pre-analysis. At the exploration stage, codification and analysis of the speech were done. At this very same stage, the categories were defined on the

https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

basis of the objectives formulated and the data collected. In this context, three categories arose, namely: a) positive effects of the *e-BAÚ* system; b) limitations of the *e-BAÚ* system, and; c) proposals for the improvement of the system.

III. RESULTS AND DISCUSSION

This section is aimed at stating and discussing the results of the research on the basis of the predetermined categories.

Table 1: Business license issuance process: Comparative analysis of the period before and after the implementation of e-BAÚ.

Performance Key-indicators		**Before e-BAU**	**With e-BAU**
Industrial licensing	Procedures	Nine steps	Two steps
	Time	36 Days	10 days
	Cost	USD 870	USD 348
Commercial licensing	Procedures	Nine steps	Two steps
	Time	8-15 Days	Seven days
	Cost	USD 98	USD 40
Simplified licensing	Procedures	Two steps	One step
	Time	One day	Immediate
	Cost	Floating rate	Single rate
Tourism licensing	Procedures	Nine steps	Four steps
	Time	45 days	17 days
	Cost	USD 719	USD 288

Source: Research data.

Table 1 reveals that the implementation of e-BAÚ system reduced significantly the waiting time for business licensing issuance as well as its cost.

Licensed processes and collected revenue

On the basis of Table 2, the Nampula one-stop shop, in the period in question, licensed a total of 7.336 (seven thousand, three hundredthirty six) economic activity licensing processes, being 1.704 (one thousand, seven hundredfour) simplified licensing, 1.053 (one thousand, fifty three) service provisions, 1.091 (one thousand, ninety one) wholesale trade, 2.167 (two thousand, one hundredsixty seven) retail trade , 153 (one hundredfifty three) industry processes, and 1.168 (one thousand, one hundredsixty eight) foreign trade operators.

Table 2: Revenue collected from 2014 to 2018

Activities	**Amount of licensed processes**					Total
	2014	**2015**	**2016**	**2017**	**2018**	
Simplified Licensing	683	537	255	132	97	1.704
Wholesale Trade Establishment Licensing	100	187	185	354	265	1.091
Retail trade Establishment Licensing	290	403	553	505	416	2.167
Service Provision Establishment Licensing	111	226	165	334	217	1.053
Industrial Establishment Licensing	30	22	45	21	35	153

https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

Issuance of Import and Export Licences	185	157	173	422	231	1.168
Total Annual	**1.399**	**1.532**	**1.346**	**1.768**	**1.261**	
Investment Volume in USD	2.036.046	2.397.295	3.112.814	2.791.866	475.825	10.813.853
Jobs created	3.872	4.011	8.917	4.297	2.678	23.775

Source: Research data.

As a result of these processings, in the period in question, **23,775** (twenty-three thousand, seven hundredseventy-five) potential jobs were created and USD **10,813,853,06** (ten million, eight hundredthirteen thousand, eight hundredfifty-three, six) collected in investment. Still in the same period, Nampula e-BAÚ collected and saved in the State Treasury, from licensing fees and other complementary services to licensing USD **291,702,58** (two hundred ninety-one, seven hundred two, fifty eighty).

Functional analysis of the e-BAÚ platform

Aimed to analyse the functionalities of the e-BAÚ system and its contribution to the improvement of service provision to the citizen and to economic activities licensing in Mozambique, some questions were asked to the employees (technicians) responsible for operating the system. The analysis was made in relation to the commercial licensing cycle, from the first client's contact and/or businessman to the stage of issuance and delivery of the license. The cycle under analysis obeys the following stages: (i) general information stage, where the user is informed about the conditions for commercial activity licensing, (ii) registration stage, where the system operator, in the presence of the user or their agent, inserts the businessperson data on the system, all documents needed for the acquisition of the license, (iii) commencement of proceedings stage, for checks on the lawfulness, (iv) authorizations stage, (v) decision stage, which consists on approval or rejection, and, finally, (vi) printing and delivery of the license.

One of the problems detected in relation to the functioning ofe-BAÚ system is the action of the public servants responsible foroperating the platform, namely, general information, registration, commencement of proceedings, authorization and decision, as illustrated by the following remark from an interviewee:

> *I can categorically affirm that most of the officers responsible for operating the e-BAÚ system act in bad faith, given the inefficacy of the platform, taking advantages in their own benefit (I1).*

The gaps and weaknesses of the e-BAÚ system, create conditions for operators to take advantage in their own benefitat the expense of the State or the institution, as the following statement shows:

> *Just to mention some examples, one of the conditions for licensing a foreigner's economic activity is a passport with a business or work visa, and the majority of them do not have it. Foreigners look for a friend, a relative or a fellow countryman who as visa and take copy of their visa and attach it to his/her passport since the visa is valid, although it does not belong to him/her but to someone else, and since the checks on the lawfulness is done by eye, it is unable to detect fraud, thus he/she gets the license (I2).*

Other cases of bad faith are related to forgery of deposit bank slip. Since there is not reconciliation between bank balances and BAÚ, withonly one scanned coloured bank slip or one coloured copy, the system operator issues several licenses.

> *For a clear picture of what I say, imagine if you are a technician or responsible for registration of e-BAÚ system, in a dishonest way you intend to use a white A4 paper in place of a deposit bank slip corresponding to commercial activity licensing fee, the system accepts the white A4 paper as if it were a bank slip, it is unable to detect the error (I3).*
>
> *Another example of errors of the system is that it issues bill of sale for commercial activities licensing fees for any situation and these bills of sale do not demand for a deposit slip number, tax identification number, legal entity identification, visa number, ID, etc., the system is not*

https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

intelligent. It is manipulable and vulnerable (I4).

IV. DISCUSSION

The results of this study show that, in general, the implementation of e-BAÚ brought improvements, both in revenue collection and simplification of the steps in licensing process. Similar to the findings of this research, in a study by Brito, Borges and Tavares (2015), it was observed an increasing improvement in the performance of State Tax Authorities, having been facilitated the monitoring of goods in transit and of establishments, since the ICTs provide better identification to our public servants in the processing of electronic data of industries, trade and services that operate in the State where the research was conducted and allowing data triangulation.

In the analysis of the functionalities of the *e-BAÚ* system, the lack of interoperability contributes to the manipulation of the system, causing some bad faith employees to insert false and/or expired documents. It originates revenue collection problems. Gouveia (2014) asserts that the interoperability of systems based on ICTs, the sharing and reutilization of information, and the integration of administrative processes, both inside and outside the public sector organizations is essential in order to assure high quality, innovation and transparent services centred on the customer/citizen. It is necessary to define the interoperability, considering the relationships among the public sector organizations (central and local Public Administration). For the author, interoperability can be seen as a means of unification that allows information and computer systems to be connected within organizations and even with external organizations and citizens. It is possible to consider three aspects: **Technical interoperability:** related to the technical aspects about computer systems connections; with the definition of open interfaces and with telecommunications; **semantic interoperability**: related toassurance of meaning, precisely, of the shared information, which assures that different applications and services have common understanding of the same information; **organizational interoperability:** related to business processes modelling, with compatibility of different information architecture to organization goals and assist in the cooperation of business processes from different entities.

The author still considers that if the interoperability question is solved, it is easier for integration of processes to occur with greater efficiency gains and less operating costs. There is also the possibility of integrating the public sector with the private organizations that comply with the proposed conditions for information sharing. Interoperability, thus, becomes an essential requisite, both from an economic perspective and technical, for the development of efficient and effective services (Gouveia, 2004, p.40).

As in this study, Campelo (2006) verified that the dissemination of e-Gov is deficient, with the existence of problems related to the infrastructure and training of public servants who influence the changes proposed by the Programme. For the author, the improvement of performance proposed by the Electronic Government Programme means that tools, techniques and good practices are identified and published to public managers; and also that a plan of implementation of the National Plan for Electronic Government Development is defined, including the approval and effective implementation of the standards of interoperability of the electronic government; discussions around the adoption of the software. Campelo (2006) understands that a programme has the opportunity to improve its performance in relation to citizen-related public services provision when orienting public bodiesto have considerable knowledge of the target people, their electronic services, their needs and opinions about the quality of the services.

V. CONCLUSION

This study aimed to analyse the impacts of the implementation of e-BAÚ system in the One-Stop Shop located in Nampula city, in Mozambique. The results show that the system brought improvements related to cost reduction and time needed for license acquisition. Therefore, it reduced the procedures and requisites for license solicitation of six elements, namely, architectural plan, location map, opinions, tax identification number, legal entity identification, applicant's identification document, to only two (2): the applicant's identification document and tax identification number, or three (3): applicant's identification document, tax identification number, and legal entity identification, depending on the type of license. It also reduced licensing fees, which changed from class-based to activity-based, that is, wholesale, retail and services.

Notwithstanding, it was noticed that e-BAÚ shows certain limitations and weaknesses such as not being able to detect forged and expired documents, and not being interconnected with the systems from other institutions, namely, banks, Migration Directorate, Finance Directorate, Civil Identification Directorate, National Institute for Roads and Traffic, National Institute for Refugee Support, Registration and Notary Affairs,

https://dx.doi.org/10.22161/ijaers.79.54 *ISSN: 2349-6495(P) | 2456-1908(O)*

Technical Secretariat for Electoral Administration, embassies and Consulates of Mozambique overseas, in order to check on the lawfulness of the documents at the moment of license application. Gouveia (2014) warns that the target of e-government must not be the Information and Communications Technologies, but its use, which when combined with organizational changes and new competences,improves public services provision, public policies, and the exercise of democracy, representing the real sense of democracy (it is, therefore, represented by both the e-government and the ICTs, and the tool for a better, efficient and effective governance).

There is, therefore, a risk of lack of quality of the system caused, by a fault in the introduction and/or an effective implementation of the interoperability. Interoperability is perceived, here, as the ability for two or more systems to share data, information, and knowledge, enabling government agencies to provide effective and efficient services to the citizens, the private sector and other government agencies. Precisely, this lack if interoperability makes the quality and safety of the integrated platform for citizen service provision not to be one of the best.

On the basis of these findings it is suggested that such interconnections with other systems from the institution involved in Commercial Activity Licensing are made, namely Identification Document Issuance System, Tax Identification Number, Foreigner's Identity Card, Legal Entity Identifier, driving licences, voter registration card, and the licensing fees bank slips. Gouveia (2004, p.39) referring to a European Commission document, stresses that the interoperability approach is not a mere technical issue related to computer network connections, it is a really important aspect to the development of the e-government. This importance is justified by the fact that it allows integration of services and information between the Central Public Administration and various territories served by the local e-government, what allows the establishment of a network of exchange and share of information which stretches and multiplies the e-government benefits.

This study was conducted in a specific institution; it allows for generalization of results from the studied institution to other institutions that use the analysed e-BAÚ system. In this regard, it is recommended that future researches involving other institutions and / or clients that resort to e-BAÚ in order to license their projects are conducted in order to analyse the level of satisfaction in relation to its functionality.

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 Electrónico*. Tribunal de Contas da União. Nova Série. Brasília, Brasil.

[3] Decreto n.º 5/2012 (2012). Boletim da República, quarta-feira, 07 de Março de 2012, I Série – Número 10.

[4] Decreto n.º 24/2007 de 5 de Julho cria os Centros Regionais de Ciência e Tecnologias.

[5] Decreto n.º 50/2002 de 26 de Dezembro cria a Unidade Técnica da Implementação da Politica de Informática.

[6] Decreto n.º 2/2007 de 8 de Março cria Comissão Interministerial da Reforma do Sector Publico.

[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 nº. 22/2014, de 16 de Maio aprova o Regulamento de Licenciamento Industrial.

[10] Decreto n.º 94/2013, de 31 de Dezembro, aprova o Regulamento do Exercício da Actividade de Empreiteiros, e de Consultores de Construção Civil.

[11] Decreto 97/2013, de 31 de Dezembro aprova o Regulamento de Empreendimentos Turísticos, Restauração e Bebidas e Salas de Dança.

[12] Decreto 39/2017 de 28 de Julho aprova o Regulamento para o licenciamento simplificado e a Certidão de Mera Comunicação Prévia.

[13] Gouveia, L.B. (2004). Local e-Government-A Governação Digital na Autarquia. Porto: Sociedade Portuguesa de Inovação**.**

[14] José, M.L. (2014). *Governo Electrónico em Moçambique: uma analise do grau de implementação: o caso do BAÚ e do e-SISTAFE*, 2006-2013. (Dissertação de Mestrado). Universidade Eduardo Mondlane, Maputo.

[15] Relatório de Actividades do e-Gov (2013). Instituto Nacional de Tecnologias de Informação e Comunicação. Maputo.

[16] Relatório Quinquenal (2014-2019) das actividades realizadas pelo BAÚ de Nampula-2019.

[17] Resolução nº 28/2000 (2000). Política de Informática. Conselho de Ministros. Maputo: Imprensa Nacional de Moçambique: 3º Suplemento do Boletim da República, I Série – Número 49.