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« An E-governance Model for Public Funds Collection in the Democratic Republic of Congo »

[Un modèle de gouvernance électronique pour la collecte des fonds publics en République démocratique du Congo]

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Editorial

Dear readers and researchers,

We are extremely proud and excited to present to you the very first issue of the **International Journal of African Sciences (IJAS)**. This issue marks a historic moment for our journal and reflects our commitment not only to the promotion and celebration of African research in all its forms but also to a strong, united, and prosperous world.

In this journey through African research, we have the privilege of presenting the findings of studies conducted by researchers from diverse backgrounds, from South Africa to Algeria, from Senegal to Madagascar, and beyond. Each article is the result of hard work, unwavering passion for the exploration of knowledge, and a desire to contribute to the development of our continent.

It is in this spirit that we call on national and international organizations, African and non-African universities, as well as governments, to support this journal. Our mission is to value African knowledge while also shedding light on global knowledge, all while maintaining internationally recognized standards and norms. Our aim is to foster significant contributions to the advancement of knowledge in Africa.

By collaborating together, we can enhance the visibility of African research, promote scientific exchanges, and encourage the emergence of solutions tailored to our specific challenges. Through this synergy, we will build a prosperous future for our continent, where knowledge will be a fundamental pillar of our collective development.

We thank in advance all those who will join this initiative and offer their support to our journal dedicated to highlighting African knowledge. Together, we will build a promising future for our continent.

This inaugural issue covers a wide range of fields, reflecting the diversity of research in Africa. From medical studies in Burkina Faso to political and environmental analyses in the Democratic Republic of the Congo, each article brings a new dimension to the understanding of the issues shaping our society.

We warmly salute and thank the authors, all distinguished researchers and educators, for their exceptional contributions. Their dedication to scientific research and the advancement of knowledge is an inspiration to us all.

We also express our gratitude to the review committee, composed of eminent professors from Africa and other regions, for their expertise and meticulous evaluation of submitted articles. Their involvement in this process ensures the quality and credibility of each publication.

Finally, we wish to thank our editorial team and all those who have contributed to making this first issue a reality. Your commitment and hard work have been essential in accomplishing this mission.

As we launch this inaugural edition, we aspire to build an inclusive platform that encourages the sharing of knowledge, fosters collaboration among African and international researchers, and becomes an essential reference for research in Africa.

We look forward to continuing this journey with you, readers and researchers, exploring new ideas, broadening our horizons, and contributing together to a brighter future for research in Africa.

Welcome to this exciting journey into the heart of African research !

Dr. Joseph-Robert KANIKI WA CILOMBO

Professor and Vice-Dean in charge of Research at the Faculty of
Law of the Université Officielle de Mbuji-Mayi/ Congo DR

« An E-governance Model for Public Funds Collection in the Democratic Republic of Congo »

[Un modèle de gouvernance électronique pour la collecte des fonds publics en
République démocratique du Congo]

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Abstract

The application of E-Government allows higher levels of effectiveness and efficiency in governmental tasks, improved processes and procedures, increased the quality of public services, improved use of information in decision-making processes, and improved communication among different governmental offices. This paper presents the findings of a research conducted in the Democratic Republic of Congo regarding the role of Information and Communication Technologies in enhancing transparency in public funds management. Recent public funds collection developments emphasize the importance of building a computer-based tax assessment and collection system. This paper investigates the e-government model that can be appropriate for public funds collection in the DRC by focusing on the current mechanisms in place to ensure transparency. The study adopted the Capability, Empowerment, and Sustainability model, a revised version of the Capability approach model, as the guiding theoretical framework an exploratory design coupled with the qualitative approach. Findings revealed that the mechanisms that are used in the National Ministry of Finance to collect the public funds are still manual. Thus, the study suggested an E-Governance model for public funds collection in the DRC.

Keywords: E-Government, Public funds collection, E-Governance Model, DRC

Résumé

L'application de l'e-gouvernement permet des niveaux plus élevés d'efficacité et d'efficience dans les tâches gouvernementales, des processus et des procédures

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améliorées, une meilleure qualité des services publics, une meilleure utilisation de l'information dans les processus de prise de décision et une meilleure communication entre les différents niveaux gouvernementaux. Cet article présente les résultats d'une recherche menée en République démocratique du Congo sur le rôle des technologies de l'information et de la communication dans l'amélioration de la transparence dans la gestion des fonds publics. Les développements récents en matière de collecte de fonds publics soulignent l'importance de la mise en place d'un système informatisé d'évaluation et de collecte des impôts. Cet article étudie le modèle d'e-gouvernement qui peut être approprié pour la collecte de fonds publics en RDC en se concentrant sur les mécanismes actuellement en place pour assurer la transparence. L'étude a adopté le modèle Capability, Empowerment, and Sustainability, une version révisée du modèle d'approche Capability, comme cadre théorique directeur d'une conception exploratoire couplée à l'approche qualitative. Les résultats ont révélé que les mécanismes utilisés au sein du Ministère National des Finances pour collecter les fonds publics sont encore manuels. Ainsi, l'étude a proposé un modèle de E-Gouvernance pour la collecte des fonds publics en RDC.

Mots-clés : E-Gouvernement, Collecte de fonds publics, Modèle de gouvernance électronique, RDC.

0. Introduction

In the later part of the last decade and earlier part of that decade most tax authorities were adapting their websites to provide transactions and to online taxpayer forms and calculators, although their attention was initially focused on computerization of routine tax management processes (Shaw, Slemrod, and Whiting, 2010). Tax policy and tax management, as well as taxpayer compliance and the level of government enforcement, have a bearing on the level of tax revenue in the economy (Slemrod, 2019). In recent decades, both for electronic filing and taxes, information and communication technology (ICT) have provided revenue authority a variety of opportunities to boost revenue from the government, to improve efficiency and quality of services provided to taxpayers, but also to reduce taxpayer compliance burdens and public administration costs (Fjeldstad, and Moore, 2009). At the outset, many services focused on the electronic filing of major tax returns and electronic payment of taxes (Ilyas, 2016). The administrations subsequently adopted more bidirectional services including alerts and notifications. It has also developed automated systems and processes for taxpayer data exchange between companies, public authorities and income institutions (West, D.M., 2004).

Furthermore, according to Liang, and Lu (2013), electronic reporting systems are one of the taxpayers' most visible ICT service. The submission of annual income tax declarations is their main contact with the tax agency and it can benefit both taxpayers and the government through a system that allows taxpayers to electronically produce their tax declarations (Danida, 2012). Slemrod and Gillitzer [2](2013) highlighted that taxpayers are provided with a simpler and more convenient system, which reduces their compliancy and uncertainty and, in some cases, rationalizes their compliance efforts. In addition, companies can benefit from electronic filing systems, in particular, which simplify compliance with the corporate income tax and VAT (value added tax) systems and facilitate withholding personal

income taxes of employees.

ICT development have all the characteristics to add value to processes that give identity and good governance relations (Weiss, 2000). In addition, the rapid development, deployment, and proliferation of new and emerging ICTs create new growth and development opportunities for nations around the world (Okot-Uma, and London (2000). Nam and Pardo [3] stated that worldwide governments strive to exploit the potential that new technologies offer to create new dimensions of social and economic progress. However, some countries were more able to invest in ICT infrastructure and service improvement during the current recessionary climate. Others assess the marginal value of such investments, especially taking into consideration the low user availability of existing services and the re-evaluation of services portfolios where online demand is low (Madzova, Sajnoski, and Davcev, 2013). Many low-infrastructure and human capital countries remain at low government levels and serious digital divides are faced with serious issues. In fact, the extensive use of e-government in all public areas still has controversies that concern the possibility of even greater exclusion of certain categories of population (Matiyabu, and Ndayizigamiye, 2019).

In the Democratic Republic of Congo (DRC), government services to citizens have traditionally been very poorly performed; n queues waiting for government officials to receive service, people have to wait for days, paying bills like water and electricity in their corresponding offices and think about filling tax returns manually (Matiyabu, Ndayizigamiye, and Maharaj, 2017). Therefore, this paper investigated the e-government model that can be appropriate for public funds collection in the Democratic Republic of Congo.

1. What is e-government?

According to Heeks [4], e-government means everything from online government services to the electronic exchange of information and services with citizens, companies and other branches of government. E-government has traditionally been regarded as the use of ICTs to improve public agency efficiency and provide public services online. The e-government framework was later extended to include government use of ICTs to carry out a range of interactions with citizens and businesses, as well as open government and ICT data, to enable governance innovation (Gupta and Jana, 2003).

E-government is defined as using ICTs to provide public services to citizens and companies more efficiently and effectively (Marche and McNiven, 2003). Bannister and Connolly (2012) stated that e-governance is the use of ICT in government operations and the achievement of digital public ends. The underlying principle of e-government, which is supported by an efficient institutional framework on e-government, is the improvement of public sector internal functions by reducing financial costs and transaction times, so that work flows and processes can be better integrated and resources can be used efficiently in the various public sector agencies, with a view to sustainable solutions. Innovation and e-government can make governments around the world more efficient, deliver better services, answer citizens' demands for transparency and accountability, and be more inclusive and thereby restoring citizens' trust in their governments (Scherlis and Eisenberg, 2003).

In addition, e-government applies the functions and procedures of the government with the aim to enhance efficiency, transparency and citizen participation by means of information and communication technology (ICT) Halachmi and Greiling, 2013). The e-government definition shows how ICTs are used as a tool to support good governance development. Appropriate use of e-Government enables greater efficiency and effectiveness in governmental tasks, improves processes and procedures, improves the quality of public services and enhances the use of information in decision- making processes and improves communication between different governmental offices (Fang, 2002). E-government promises to improve the efficiency, responsiveness, transparency and legitimacy of governments and to create a rapidly growing goods and services market with a range of new business opportunities (Ndou, 2004).

A popular way to conceptualize e-government is through the distinguishing of three spheres of interaction with technology (Bhuasiri, 2016). Interaction between governments focuses on the use of technology to enhance the internal efficiency of public bureaucracies by, for example, automating routine tasks and quickly sharing information among ministries and agencies. Interactions between government and business usually involve using the Internet to reduce government costs in purchasing and selling goods and services from businesses. The interactions between government and public use the Internet for delivering online public services and transactions and improving service design and delivery, through the inclusion of rapid mechanisms for electronic feedback, such as immediate polls, Web surveys and emails.

Thus, e-government defines clearly the following nomenclatures: Government-to-Government (G2G) requires the exchange of data and electronic exchanges among public actors. It covers exchanges at national level between the intra- and inter agencies, and exchanges between the national, provincial and local levels. Government-to-business (G2B) covers transactions specific to the business (e.g. payment, sale and purchase of goods and services) and the delivery of corporate services line. Government-to-Consumer/Citizen (G2C) involves initiatives designed as public service consumers and citizens to facilitate people-to-government interaction. This involves interactions in the delivery of public services and in the consultation and decision-making process.

E-government also develops along a similar path that begins with broadcasting, interaction, transaction and finally integration. The presence of the government would be done by static web pages and unilateral communication in broadcasting mode. Similar to a brochure or leaflet is the size of earlier government websites. The public's value is that government information is open to the public; processes that improve democracy and services are described and more transparent. The government can also internally interact (G2G), by electronic means, distribute static information.

Websites could share information or services in interaction mode with citizens, where citizens could inquire and obtain resources from database supported websites situated at the bottom of a portal. There are several applications which stimulate interactions between government and the public (G2C and G2B). People can ask

questions by e-mail, search engines, download documents and forms. It is a fact that (simple) requests can be completed online 24 hours a day. This would normally have only been possible during the opening hours at a counter. Internally (G2G), public authorities use LANs, intranets and emails to communicate and exchange data. The public could conduct (financial) transactions with the government at the transaction stage.

This requires higher processing capabilities, as well as payment gates and security. Full transactions without going to an office can be carried out in this situation. E.g. online services include the provision of income tax, property tax filing, license extension and renewal, visa and passport and online voting. Phase three is complicated by security issues and customization. For the legalization of transfers of services, e.g. digital (electronica) signatures are necessary.

Finally, e-government reaches a stage of integration, where departments work together to avoid duplication of efforts in a significant way and a single-stop contact point is established to handle the procedures of all departments concerned. In this period, all information systems are integrated in one (virtual) counter and the public can get G2C and G2B services (Ronchi, 2019).

1.1. E-governance Models

As a result of the different initial conditions, design, expectations and perspectives of better methods of governance, e-government models in developed and developing countries are fundamentally different (Fakeeh, 2016). These models have different characteristics depending on the situation and functions of the Governance: standard health and information services, legislation and enforcement, access to officials and offices in government, address common environmental issues via the digital platform, warns the public of any predictable disasters, such as seismic events and floods. The following are the five fundamental e-government models.

1.1.1. Critical Flow Model

According to Saha and Bhattacharyya (2010), an e-government critical flow model is a digital management system which operates in public and private domains. In this model, information such as: violations of human rights, security threats (in the public and private sectors), information on corruption and the green rates of a company has been addressed and accessed.

The basis of this model is the distributing of key value information by means of convergence media or ICTs to the broad public (Fakeeh, 2016). This model requires users to understand and strategically use the importance of any data set. It can also involve establishing a position for users who can make a major difference in the implementation of good governance with the accessibility of specific data (Surya and Amalia, 2017). The strength of this model is the built-in unique characteristics of ICT that make time and distance redundant. This concept reduces the number of exploitative governments possible because of the lag between data availability between users.

According to Zairi and Alshawi (2006) this model is used for the use of the government's assessment of the people, investigation and investigation reports, for the provision of records of violations against human rights and for prosecution of government officials to citizens and non-governmental organisms concerned, to provide information to the electoral bodies about corruption by specific government officials or ministries.

Some projects using this model were successful: The human rights portal in Bangladesh supports changes in human rights across Bangladesh's political limits. This portal helps to resist any social repression for women, marginalized communities, children and the public (Lewis, 2011). International Transparency Corruption News operates the daily corruption news website, which reports about all corruption cases worldwide. The Central Vigilance Committee in India has a website which provides free access to information on government officials involved in public corruption lawsuits (Jain, 2018). This website allows people to lodge a complaint in accordance with the jurisdiction of a public servant.

1.1.2. Comparative Analysis Model

The aim of this model is to explore information both in private and in public spheres and to compare it with the information that is known, which results in premeditated knowledge and views (Fakeeh, 2016). It systematically assimilates, manipulates and campaigns for changes in governance measures and policies using new knowledge products. Benchmarks must be made in order to compare past and current events or to understand the effectiveness of the intercession in two separate situations. The strength of this ICT model is that it can store and instantly share data across every network and beyond hierarchical or geographical barriers, in a retrievable way (Fakeeh, 2016). This model is the least growing governance model, so it is extremely efficient that it gradually gains popularity.

In order to manipulate how decisions are taken in future, the Comparative Analyse Model lays down conditions of prior preference, particularly in legal and court decisions. It is used to evaluate the performance of a particular civil servant, department or government and allows informed decision-making at all levels of government by providing the background to know how and the justification for the course of action in the future (Sharma and Morgeson, 2018). This model is also used to measure the effectiveness of current policy through learning from the principles and measures that guided e-government in the past (Chatfield and Alhujran, 2018).

During ICT access to local information and global products at extremely low cost, developing countries can make use of this model to their advantage. In the absence of strong civil societies and a small public memory, this pattern can become useless or ineffective (Fath-Allah and Cheikhi, 2014). This model is based on the availability of additional information for comparison and on people's attitude to study and to develop self-explanatory or strong analysis arguments (Chatfield and Alhujran, 2009).

This model is used to conduct research into environmentally friendly Indian industries in India. The Center for Science and the Environment in India (Fakeeh,

2016). The main aim of this project is to promote a fair and independent review of the environmental performance of different industries. It seeks to achieve a perspective that supports industry accountability and encourages poor performers to compete. Following evaluation, these companies share their performance online and share their mass views in deciding the greenest industry. A benchmark for evaluating the performance of individual countries regarding their organizations is the UNDP human development index report which uses stored statistical information concerning public health, literacy and national incomes.

1.1.3. Broadcasting/Wider Dissemination Model

This e-government model is based on information distribution that is essential to improved governance (Fakeeh, 2016). The model's work is to reach a broader public domain by using ICT, as this information is already public. An informed citizen quickly understands the governance mechanism and can decide soberly in the exercise of his duties and his rights (Lee-Geiller, 2019). The areas in which these informed citizens ensure that the right methods of governance are used without fear or favor are likely. The Governance Radio Model unlocks an alternative canal for people to access and distribute data from outside sources to the local or public domain. When this model becomes widely spread, the failure to communicate eventually corrects and provides people with information on the government in order for them to reach consensus and decide the course of action in the future (Rose, 2005).

This model is essential to the public domain, names, contacts and addresses of officials in the government, the on-line sharing of government legislation and laws, important online judgments/judicial statements, and information on government plans, such as online budgets, security conditions and expenses.

The official website for the Brazilian national e-government offers comprehensive government information and integrates citizens into South African e-government (Fourie, 2013). There is a Chapter 2 Network in South Africa that is a center for clear communication and information for social justice. This network distributed information to civil society organizations involved in social justice on research and intelligence, support campaigns and legislative scrutiny. Earth Negotiations Bulletin is a global network service that brings international environmental negotiations and decision-making to the attention of citizens worldwide. It plays a primary role in recording international decisions and taking appropriate measures for governments and people, especially in the developing countries Fakeeh (2016).

1.1.4. Interactive-Service Model/G2C2G

E-governance Interactive Service Model / G2C2G interactive service system can also be referred to as government model to citizen model to government (Maleka, 2016). This model consolidates different models of e-governance and enables people to participate directly in digital governance (Fakeeh, 2016). In this model, ICT is used to include all people into the knowledge network, allowing them to communicate interactively. G2C2G fully encompasses ICT potential and uses it to increase transparency and efficiency and involvement in government functions and to save on decision-making time and costs. Citizens are able to access all government

services through this model as it creates a channel for government procurement, concern-sharing and tax returns.

It is applied when electronic balloting is carried out while government officials are elected; reports and complaints are filled out by citizens to various government bodies, a comprehensive channel of communication is set up, such as online dialog and video conferencing, opinions and public debates on issues affecting the citizens of the everyday lives, and using an online operations, such as tax filing, collection of revenues and transfers of payments.

In Pradesh, this e-government model was used to connect rural cybercafés to meet citizens' everyday needs, using a website (Fakeeh, 2016). This website offers services such as online registrations and applications, copies of land maps and redress of public complaints. In the Philippines, the model was also used as an online system designed to assist in the clearance of ports, the payment of duty and the delivery of orders for ships to quit. In order to maximize revenue collection, this digital platform reduces cases of graft within government weapons.

1.2. Mobilisation and Lobbying Model

This model is the most common E-governance model and has always been of use for civil society organisations, particularly in developing countries, to influence global decision-making procedures (Saha and Bhattacharyya, 2010). The models of mobilization are strategically based, the information flow directed at strengthening action and building strong allies. It takes a proactive approach to building virtual communities that encourage strong information sharing and sharing of similar values (Fakeeh, 2016). This model and the resources and ideas gathered together through virtual networking methods are the diverse elements of these virtual communities.

This model is being used to conduct electronic ballots during the election of government officials; to fill out reports and grievances by the citizens to various government bodies; to establish a comprehensive channel of communication such as online dialog and video conferences; to hold opinion polls and public debates on the issues of the day-to-day citizens; and doing governance functions in an online platform such as filing of taxes, revenue collection, and payment transfers. Groups that require decision makers to recognize their concerns are requested to be established; advocate for the rights of the marginalised parties to decision-making bodies; encourage public discussions on global issues and themes at any forthcoming conference, and advocate greater participation in decision-making processes.

1.3. ICT and the Capability Approach

From a CA point of view, access to ICT is a commodity, not an end in itself, but a means by which somebody can achieve valuable functional qualities. In the CES model, there is a reciprocal relationship between ICT and capacities, in which people are required to benefit from the ICT, which in turn makes communication and free flow of information more easily available, which is essential to the development and sustainability of capacities (Kleine, 2013). The focus on users' ability to benefit from the technology in ways that achieve the desired functions is a common thread in

most literature linking CA and ICT (Alampay, 2003). The CA can be useful to shape ICT initiatives as well as to assess them. Tambini (1999) analyzed media contributions for the improvement of a range of features, including opinions from the CA that the capacity of people to use various forms of infrastructure similar to the abovementioned effective use should be taken into account by those evaluating the impacts of ICT on human development. Thinking about ICTs as a function and capacity would lead to an increase in awareness of the impact of market inequalities in the formulation of policies aimed at greater equal opportunities over what it considered superficial indices, such as commonly utilized access and statistics. Building on the number of web sites, Gigler (2004) found that, even though progress in some of the most impoverished countries is being made, there is still a considerable web gap for people in the development world who can access this web site. He then asked whether the difference was associated with capacity and concluded that it appears to have increased as a result of greater access to information. But that macro-perspective does not sufficiently reflect a lack of effective use of access to information. In addition, Jaeger and Grimes (2010) discussed computerised land records and e-government services under the freedoms associated with guarantees of transparency and how the ICT's had contributed to India's broader development, how they contributed to economic facilities through projects such as telecentres' mobile telephones, better agricultural supply chains, and banking services. Although ICT's contribution to protective security has not been shown for example, the ICT policy freedoms of a project in which slum residents have been strengthened more with the use of the information provided by an NGO. Therefore ICTs are not sufficient to promote development without social and political intervention (Grunfeld, 2011).

1.4. ICT and Empowerment

As capacity to self-reliance, one way of thinking about empowerment is that dependence on others is not only ethical, but also practical to undermine individual initiative and effort and even respect for one's self. There is a wide-ranging and complex body of authorisation literature, but the modest purpose of this section is simply to introduce this concept sufficiently carefully to communicate what this concept means when you consider its interdependence with ICT in the conceptual model and the results of the research. There is a wide variety of references to ICT empowerment, often asserting that ICT can empower people in general or has empowered a particular initiative but not properly defined the term. From the CA perspective, empowerment is a capacity that represents expanding the freedom of someone in such a way that they live a life they value and have reason to value. It can also work if someone takes the opportunity for empowerment (i.e. a capacity achievement) (Grunfeld, 2011). Empowerment can provide individuals and communities with opportunities to expand their respective capacity. This, in turn, can be helpful. The reality of those without one or more basic capacity, like education, can illustrate that empowerment is their prime priority. They are often deprived, which can lead to a deterioration in their agency and function. Thus, this is a process where individuals or groups are free from domination, be it structures, or relationships (Grunfeld, 2011). As mentioned above, individual empowerment is not enough, but the concept requires a wider approach that includes groups,

organizations and community, which is key to the conceptualization of empowerment, especially in relation to shared facilities, in order to understand ICT's contribution.

1.5. ICT and Sustainability Development

The concept of sustainable development is defined as development that meets the current needs without compromising the capacity of future generations to meet their own needs (Emas, 2015). Despite Sen's references to sustainability, only to a small extent has the Capability Approach Community been involved with this issue, perhaps because of Sen's belief that the literature on the subject of sustainability has paid insufficient attention to the requirement to ensure safeguards. Over and above the CA, the use of ICTs in the fields of environmental protection, natural resources management, livelihoods and natural disaster mitigation as in the Geneva Action Plan has been considered (Throsby, 2003). Governments are then encouraged to use and to encourage ICT as a tool for environmental protection and sustainable natural resource utilization, in collaboration with other stakeholders. In addition, the government, civil society and the private sector are encouraged to undertake actions in the implementation of projects and programs on sustainable production and consumption, and to provide for the environmentally safe disposal and recycled use of discarded hardware and components for ICTs. In addition, ICTs can help to foster e-government work by providing people with a new and powerful means of participating in government and interacting with officials and open up transparent government processes with the public. Although this can sometimes raise important civil liberties questions, so far as personal data are shared without the knowledge or consents of the individual, ICTs can also play an important monitoring role in making it easier for people to understand how taxpayers' money is used to deliver public goods and services (Ameen and Ahmad, 2012).

1.6. Public funds collection in the DRC

According to the Ministère des Finances (2011), revenue collection and payments follows the following steps:

1.6.1. Commitment (Engagement) for expenses

It is a phase during which the generating department makes sure of the existence of the facts likely to be generating a claim for the benefit of the Treasury of the State.

1.6.2. Liquidation

It is an operation which consists of the revenue generating service to determine the amount to be paid by the taxpayer to the State, for example, the tax rate according to the imposition rate. This is actually the calculation of the amount to be paid by taxpayers, the tax rate to the established bases of taxation.

1.6.3. Authorisation

Authorisation is an ex-post control of recognition and liquidation of transactions. As an important phase in the execution of a tax payment, it consists first of all in a regularity and conformity check of all the operations of recognition and liquidation

of the recipe. Then, the order is given to the financial stakeholder to collect the debt of the State, using the document called Perception Note.

1.6.4. Payment

This operation consists of collecting the sums due to the State after the completion of the formalities of recognition, liquidation and authorisation.

The first two phases (recognition and liquidation) go back to the assessment service (actor), while authorisation and payment are the responsibility of the authorising department, the DGRAD in the specific case.

The current procedure for the collection of fees, taxes and royalties due in respect of administrative, judicial, public and participatory revenue derives from the following texts:

- Decree No. 007/2002 of 2 February 2002 on the method of payment of debts to the State;
- Order No. 076 / CAB / MIN / ECO-FIN & BUD / 2002 implementing measures of Decree 007/2002;
- Ministerial Circular No. 002 / CAB / MIN / ECO-FIN & BUD / 2002 of 11 February 2002 on the method of payment of debts to the State.

According to these texts, the taxpayer obtains a collection note from the competent services (DGRAD, DGI, DGD RAD), in which is entered the amount of fees due. The taxpayer presents himself with the collection note at the counter of the central bank, a commercial bank or an approved financial institution, or from the accountant assigned to the financial management or ETD at the local level where the banking institutions are not represented; the bank gives the taxable person as proof of payment: an installment slip and payment certificate for payment in cash; a debit notice and a payment certificate for payment by bank transfer; and the perception note issued by the bank.

1.7. Theoretical Framework

This study applied the Capability, Empowerment and Sustainability model (CES) (Grunfeld, 2011), a revised version of the Capability approach model, as the guiding theoretical framework. This approach allowed the researcher to assess how ICT capabilities would empower public funds collectors to manage the collected funds in a transparent way. The CES is built of the following components: Capabilities, Empowerment and Sustainability. In this study, Capabilities was considered in order to identify the current use of ICT to collect public revenue. The point of departure of this research is the assumption that in order to organise and maintain the collection, ICT should be put in place as a mechanism to ensure transparency in funds collection and allocation. The Sustainability construct will be considered for the public perceptions of using ICT as a mean to address transparency and accountability issues in public funds collection in DRC.

2. Methodology

This study adopted an exploratory design methodology. The qualitative approach was considered. Interview guides was used as research instruments as data was

collected through semi-structured interviews. Data was analysed using Nvivo software for qualitative statistical analysis. Data was collected at National and local levels, which includes the Ministry of Finance and the civil society representatives, in the DRC.

3. Findings and Discussion

In the DRC, all the public funds collection strategies are defined by the National Ministry of Finance and all the funds collection institutions are fully managed by this ministry. At the provincial level, every province manages its own funds collection unit and report to the Provincial Ministry of Finance. This section aims to identify if ICT is used as a strategy for funds collection in the DRC as other countries have adopted already the use of Tax Administration System, Integrated Financial Management System, and Taxpayer identification system to fully managing the funds collection (Chatama, 2013).

From the National Ministry of Finances, the respondent 2 mentioned that the strategies used to collect public funds in the DRC are as follows: to maintain the legal and regulatory Acts, the good collaboration with the economic operators and the various revenue generating services, the training of the managers and agents; and the sensitisation of economic operators and Revenue Generating Services (National Ministry of Finance, Interview, 2018).

The respondent from the National Ministry of Finance stated that:

*“The strategies are summarized in the following points:
We keep a very good collaboration with the various revenue generating services (basic services); Maintaining the legal and regulatory acts governing the methods of payment of debts to the State and a good collaboration with the economic operators; awareness of the economic operators with the revenue generating services to the social citizenship and the training of the managers and agents for their levelling.”*

3.1. Legal and regulatory Acts

Every year, the government defines the finance law, also called the government budget to ensure the execution of the government projects and respond to the citizen needs. It contains revenue information of the taxes that are supposed to be collected from different sources, and expenditure information for the government finance year. However, the National Ministry of Finance ensures the application of the finance law by managing the budget. In addition, there are many sources of finance in the DRC, including the taxes. Still, the government of the DRC implemented the General Tax Code, which is a collection of legal and regulatory acts for managing the taxes in the DRC. All these strategies are not accessed easily with the citizens and the government does not ensure its vulgarisation.

3.2. Collaboration between the economic operators and the various Revenue Generating Services

To ensure the collection of funds in the DRC, the National Ministry of Finance ensures the collaboration between the economic operators and revenue generating services. Such collaboration is established to create interaction between the

taxpayers and the government officials for funds collection. In addition, there is direct communication between economic operators and revenue generating services; the request of information from both parties is done mostly by phone or visits in their respective offices. However, this interaction opens the gates to corruption because the government officials have influence over the economic operators.

3.3. Training of workers

The respondent 2 mentioned that the government of the DRC owns a National School of Finances to train the workers of the National Ministry of Finance. Trainings are based mostly on inspection of financial services with the focus on public budget, accounting, insurance, customs and excises, and public finance. At the institutional level, workers are also trained in other fields but, concerning ICT, they are trained usually in Microsoft Office Words and Excel.

3.4. Awareness of economic operators and Revenue generating services

The National Ministry of Finance ensures the collection of resources in the DRC. To achieve this duty, the government has to raise awareness to the economic operators of public and private sectors to inform them about the benefits of their taxes, the operations of paying taxes, and make sure that they are informed about the policies related to funds collection in the DRC. The aim of the National Ministry of Finance is to maximise revenue to carry out the development of the country. However, the government of the DRC does not have any Open Data Portal which may be applied as a transparency mechanisms to ensure access of information to the community. The awareness is raised by radio and television, to inform the economic operators about the payment of taxes, after releasing the acts related to funds collection. Radio and television are mostly based in town, without access in the rural areas. Thus, there is still a need of implementing awareness mechanisms to inform the economic operators and the community about funds collection in the DRC. In addition, the Revenue generating services are also informed about the mechanisms that may be applied for funds collection and the different acts in place.

3.5. Mechanisms of using ICT in Public funds collection

This section is related to the Capability construct of the CES Model. According to respondent from the National Ministry of Finance, the mechanisms that are used in the National Ministry of Finance to collect the public funds are still manual and there is direct interaction between the National Ministry of Finances, the Revenue Generating Services and the Economic Operators. He mentioned that the National Ministry of Finance, in the DRC, maintains the legal and regulatory texts governing the methods of payment of debts to the state, this assumption relies on the fact that the government manages the funds depending on the budget of the year, voted by the members of the parliament and approved and proclaimed by the President of the Republic. In addition, there are decrees made by the Ministry of Finance at the national level, to ensure funds collection. Moreover, in the Government of the DRC, different Ministers can sign the same decree to ensure the collection of funds. This is due to the use of different offices and agencies to collect different taxes. However, these Legal and Regulatory Acts are not known to the population and

there are no efforts in place to ensure the communication of these Acts to the community. Also, the government of the DRC is not willing to raise awareness about these legal and regulatory issues which leads to mistreatment of the population during the collection of taxes because the paying agents impose the taxes without considering the Legal and Regulatory Acts that define the taxes and how it will be collected. Thus, ICT can be used in many ways to support these Legal and Regulatory Acts; by using the SMS based system (Mobile Phone), web based systems, TV and Radio, and social media the community can be aware the Legal and Regulatory Acts and pay the taxes as needed. Also, ICT can materialise what is mentioned in these Acts by designing systems that take into consideration the requirements from the Legal and Regulatory Acts as stated by Strand and Hatakka (2017) that the mobile phone allows data collection, sharing, and access to information to facilitate the flow of information between the government and citizens, between the citizen, as well as between the government institutions.

In addition findings revealed that, the nomenclature that specified the taxes is not well known by the population, and the taxes are paid depending on the willingness of the paying agents. This is the reason why some paying agents cost much money without depending on the nomenclature; others are involved in corruption and misappropriation of the public funds. The National Ministry of finance is concerned with the sensitisation of the Revenue Generating Services to strengthen partnership with the economic operators, to communicate about the changes of the tax legislation and to meet the concerns of the economic operators. However, ICT can respond simplify to this huge task by implementing systems that will allow a communication between the taxpayers and the Revenue Generating Services; A system can be implemented in every Revenue Generating Service, whereby taxpayers will be requested to provide a telephone number where a message can be sent in case of any change or updates, or the Ministry can create an online forum where it will be possible to communicate with the taxpayers in case of any problem. The taxpayers, the revenue generating services, and the ministry board will have access to the system and share problems and solutions. Also, a call center can be implemented to the ministry where the taxpayers can get information about a tax or in case of misunderstanding with the paying agent. Respondent from the National Ministry of Finance also mentioned that the National Ministry of Finances ensures good collaboration with the economic operators. This collaboration is done by sharing the different decisions, orders, and decrees with the economic operators at the required time. The Economic Operators, represented in the DRC by the Federation of the Congolese Enterprises, FEC (Federation des Entreprises du Congo) are also able to present their problems to the National Ministry of Finances without any payment. However, the only ICT mean that can be used to ensure this collaboration is by calling each other, which opens the gate to corruption because there is direct interaction between the Economic Operators and the Paying agents; while ICT can be used to create this collaboration by using online platform or SMS based system that block the direct interaction.

In addition, these decrees and orders can be published on a website and if there is an issue that the FEC want to present to the National Ministry of Finance, a forum can be implemented to ensure the successful implementation of ICT in enhancing

collaboration between the Ministry and the FEC. Hence, Legal and Regulatory Acts are not applied practically as tools or mechanisms to fighting corruption, because corruption is still affecting the funds collection process despite its existence. Therefore, the government of the DRC should ensure the implementation of E-Governance and open the online collaboration.

Thus, combining the Legal and Regulatory Acts with E-Governance initiative may overcome the gaps that exist in enhancing transparency in funds collection and allocation because E-Governance will be applied to every person at all levels, despite his position. Concerning collaboration with the Economic Operators, in a state where corruption affects all the layers, there is not hope that keeping a good collaboration can be most important in curbing corruption, but can improve the strategy of corruption. The government should enhance this collaboration by implementing E-Governance initiative to ensure the collaboration between the government authorities and the economic operators without direct interaction to avoid the corruption practices as mentioned by Muriithi and Pemberton (2016) that collaborations and communication are mainly maintained with three factors, including the ICT systems, Office space, and the organisational structure. Thus, the use of E-Governance initiative is most important in ensuring collaboration and hindering the direct interaction between the Tax authority and the economic operators.

The E-Governance initiative must include all the system related to the collection of funds and tax administration like Tax management system, Taxpayers identification system, vehicle registration system, and other related systems concerned with funds collection. The E-Governance Initiative should also consider the management of other entities under the government of the DRC. Many scholars and Transparency Organisations have proved the role that ICT is playing in curbing corruption in many countries. According to Singh (2010), E-Governance is applied in many countries as a mechanism for fighting corruption and promote service delivery because all government services are automated and promote open government data. This limit the direct interaction between the taxpayers and the paying agents, things which cannot be possible if the government does not think of the integration of the policies with ICT.

3.6. E-Governance for Public Funds Collection in the DRC

Based on this study, the interaction between government to government (G2G) in public funds collection in the DRC concerns the National Ministry of Finance, the Provincial Ministry of Finance and the state owned Revenue Generating Services. The government should also collect different taxes to citizen, G2C; and to business owners, G2B. Thus, the government of the DRC should ensure that all these three parties are connected using a web based system and the process of collecting taxes is done as needed. This include the provision of information and raising awareness to taxpayers, encourage the paying agents to facilitate the effectiveness and efficiency of public interaction between the three parties, and speedy transactions in public funds collection. In addition, there is a need of informing the citizens in urban and rural areas about the nomenclatures that define different taxes, that why an Open Data Portal is the most important component to inform the citizens and

the business owners about the taxes. The figure 1 indicates the interaction between the three parties of e-governance in public funds collection in the DRC:

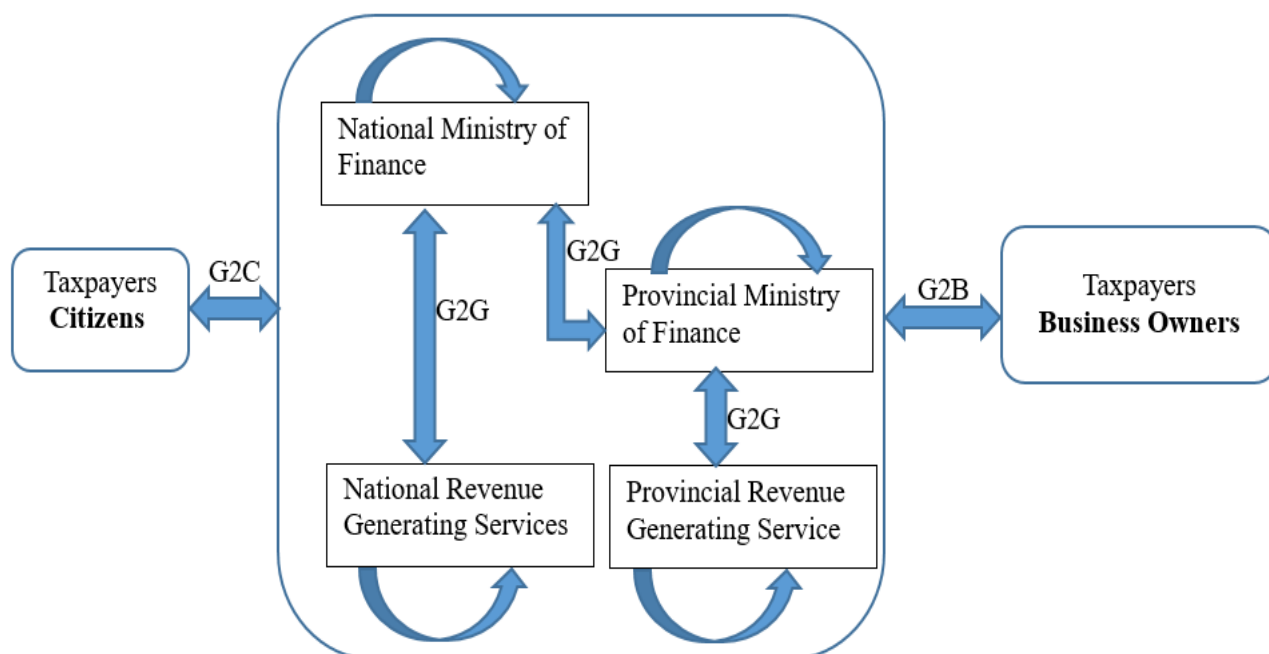


Figure 1: Interaction between the three parties of E-governance for public funds allocation in the DRC

Based on the findings of this study, the E-governance model to be adopted for public funds collection in the Democratic Republic of Congo is the Interactive-Service Model as it allows the citizen to interact directly with the government institutions and ensure the online services, and the maturity model that could better work for public funds collection in the DRC is the Alhomod Maturity Model. However, according to Fath-Allah and Cheikhi (2014), this maturity model comprises the following phases: presence of the web, integration between the government and the citizens, complete transaction over the web, and integration of service.

- **Presence of the Web:** According to the findings, the government of the DRC did not have any website where the citizens and business owners could access information about different taxes that they are supposed to pay and be updated about their payment status. This led to the payment of taxes that were not defined in the nomenclature. Therefore, in the DRC, there is a need of implementing a website where the following information are published: the nomenclature that defines the taxes, rules, regulations, forms, different documents that could be accessed by the citizens, and government plans. This information have to be updated at the required time to ensure that citizens have access to the useful information. In addition, the government of the DRC should implement government kiosks and Tele-centres in the rural areas to ensure that all the citizens of the DRC are informed and involved in the taxation process.
- **Interaction between the government and citizens:** According to the findings of this study, there was no mechanism to ensure interaction between the government and the citizens. The government imposes taxes without informing the citizens and sometimes citizens are subjected to pay taxes that

were not defined in the nomenclature. In addition, the taxpayers (citizens and business owners) are not able to communicate, using ICT means, to the paying agents or downloading and filling forms online. Thus, the implementation of a web-based system that would allow the citizens and business owners to interact with the paying agents and/or government officials is highly needed. This importantly would reduce direct interaction which leads to corruption.

- **Complete transaction over the web:** Findings revealed that the process of public funds collection in the DRC was still done manually, sometimes in the hands of the paying agents without providing receipts. In addition, the government of DRC did not implement any web-based system to complete all the process of tax payment online as taxpayers are obliged to present themselves to the concerned office. This manual system takes much time and opens gates to corruption in the public funds collection process. Therefore, the government of the DRC should ensure that all the services concerned with funds collection are implemented within web-based systems. A system that allow taxpayers to declare their assets online, be informed about the amount that is supposed to be paid and make online transactions.
- **Integration of Services:** In the DRC, at the national level, there are three major services concerned with public funds collection namely DGDA, DGI and DGRAD. All these services are under the management of the National Ministry of Finance. At the provincial level, every province has its own service that collects the provincial government taxes. However, despite the similarities in handling tasks and the management of these services, the government of DRC did not ensure their integration because every service is managed on its own and funds are collected in different ways, which create a burden to taxpayers. In addition, findings revealed that, there is no specific system used to collect public funds in the DRC and the National Ministry of Finance does not have any system that ensured management of the specified services. Therefore, the government of DRC should ensure the implementation of the Tax Management System (web based system) for the collection of funds, share information at the required time, and connect these services with the National Ministry of Finance. This would help the National Ministry of Finance to manage successfully the funds collected. The figure 2 depicts the use of E-Governance for Public funds collection in the DRC.

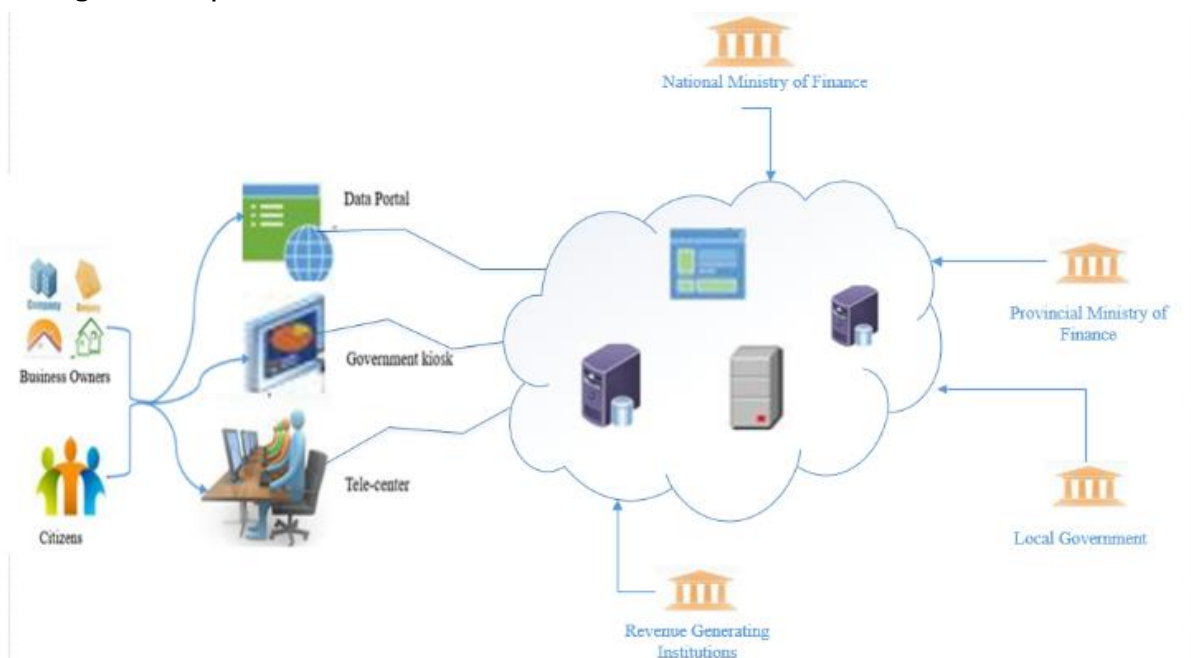


Figure 2: E-Governance for Public funds collection in the DRC

Therefore, the E-Governance Model adopted for public funds collection in the DRC is the Interactive-Service Model/G2C2G as it enables the interaction between Government to Citizen, and citizen to government, which leads to transparency in public funds collection and have a positive impact on economic growth and the development of the country (Fakeeh, 2016).

4. Conclusion

The computerisation of government services (E-Governance) is most important in managing the collection and allocation of funds and hence, enables communication with the taxpayers, facilitate the payment of taxes, and get updates from the bank. However, the effective use of computerised systems in tax collection and administration is needed, as issues in managing taxation information are increasing on the daily basis. In addition, ICT allows citizens to express their voice in decision making and allows access to public information, which is among the factors that improve transparency because the citizen will be aware of what the government actions are running. However, findings revealed that the current mechanisms in place to ensure transparency in public funds collection are poor because the strategies that are adopted do not respond to the transparency and accountability expectations as the National Ministry of Finance is still using a manual system. Thus, the study suggested to implement an E-Government initiative based in public funds collection combined with the policies to overcome the gaps that exist in enhancing transparency in funds collection in the DRC. The government of the DRC should make sure that ICT coupled with the policies are applied to record, save, monitor, control, track, audit, reporting and reporting. Also, the integration of ICT will help to promote ethical attitudes and raise awareness. Further, the government of the DRC should also ensure the implementation of the open government data portal to help the citizens to be informed about taxes. Therefore, using ICT provides the most important strategies that may increase the revenue and implement transparency measures in funds collection.

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