

American Journal of Public Policy and Administration (AJPPA)



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Abstract

This article analyses the emerging institutionalization of e-governance in Cameroon's Higher Education System. It eventually pays attention to the game of actors by questioning their role and influence in this process. The government of Cameroon is engaged since several years in the promotion of ICT in the organization and governance of Higher Education through various initiatives and mechanisms; but there are also other actors, at the international and regional level as well as private sector, who actively take part to this transformation. In order to understand the different actors' actions and interactions in the routinization and crystallization of E-governance in Cameroon's Higher Education, this article utilizes conceptual perspectives from neo-institutional theory especially drawing from rational choice institutionalism.

Keywords: *Higher Education, institutionalization, E-governance, information Society, public action.*

1. Introduction.

The ambition of the state of Cameroon to take part to the information society have significantly impact its political system and positioned ICT as one of the main strategic sector for the socio-economic, cultural and political development of the country. In the strategic plan for the development of the National information and Communication infrastructure (2007), the President of the Republic states that Information society can foster national unity, fight against inequalities and reduce poverty as long as a large number of the population is having access to ICTs. In this strategy, the country eventually ambitions to “transform the society into knowledge, know-how and behavioral society where citizens, households, enterprises and administrations can fully use internet and other ICTs to ensure the opening, competitiveness and attractiveness of Cameroon in Central Africa Sub region and in the world”.

This strategic plan for Cameroon National Information and Communication Infrastructure is still actual because it represents the fundamentals of ICT development of the country and embed all the ICT initiatives the government is implementing incrementally since the early 2000s. Of course Higher Education have a significant role to play in this strategy it has two major implications in policy change, it is first of all a subject of administrative reforms and equally an agent of reform. Pekkola and Kivistö (2014) consider that HE sector is embedded within the broad administrative reform affecting public administration but because of its relevant role in the society, also constitutes an important element in the process of reforms based on its expertise in knowledge base for policy development. In fact, according to Benchikh (2014) the knowledge and advanced skills necessary to develop a competitive prosperous and sustainable communities lays in hand of higher education thereby holding a preponderant position in the building of knowledge societies especially in developing countries.

Therefore, this paper analyses the process of institutionalization of E-governance within Higher Education system; it contributes to the understanding of transformations operating at the national level towards the digitalization of the university governance in Cameroon. We stance in this text that the process of e-governance institutionalization into Higher education in Cameroon is a public action where multiple stakeholders interact and compete; different actors, with varied trajectories and powers significantly influence this process. The institutionalization of E-governance into Higher Education System in Cameroon is therefore a collective action that involves different actors from the public and private actors, as well as International and regional organizations in a non-linear process.

2. Literature review

Institutionalization is a concept widely developed in political science and particularly in public policy. Meanwhile contributions on the subject have been numerous, they have not been able to provide a consensus on what institutionalization is or not, nevertheless definitions proposed by authors give us consequent materials to analyze and understand this term.

Various Authors have significantly contributed to the development and understanding of the concept of institutionalization (Berger & Luckmann, 1966; Meyer & Rowan, 1977; Zucker, 1977) they consider this process to be a social construction within which actors determine what is socially defined as real. In the article “the institutionalization of organizational learning: a neoinstitutional perspective” Wiseman (2007) explains that for authors such as Meyer and Roman, institutionalization involves the process through which socially accepted conventions take on the status of being socially accepted in social thought and action. Second, it is a property of those acts and actors who can be defined as a “more or less taken-for-granted part of social reality”. According to Berger et al., (1966) institutionalization occurs when there is a reciprocal

typification of habitual action by types of actors”, it is a process divided into three phases: “Externalization – the production in social interaction, of symbolic structures whose meaning comes to be shared by the participants; 2. Objectification – the process by which this production “comes to confront him as a facticity outside of himself” as something “out there” as a reality experienced in common with others; And only then comes 3. Internalization – the process by which the objectivated world is “retrojected into consciousness in the course of socialization” (Wiseman, 2007).

If these authors pay a particular attention at the process of institutionalization, the definition of this term have become a realm in institutional, theory, it is defined by some authors such as John W. Meyer and Bryan as a process by which social processes, obligations or actualities come to take on a rule like status in thought and action, while Lowndes and Roberts (2013) describe institutionalization as an ongoing process involving adaptation to changes in the external environment. In the same line, Charles (2013) outlines that it must involves both invention and appropriation and other authors go beyond to consider institutionalization as a process driven by political mechanisms, this must equally involves environmental conditions of the particular time and place. In this process the action of integrating new values or habits is driven by elites, who uses their power to realize interconnected ideal and material interest. For Heinz (2006), it is an act of legitimacy as well as power, it is equally composed of different dimensions; cognitive, behavioral, discursive, external and obligatory etc. Institutionalization can therefore be characterized a process under which, rules norms, decisions, habits which are more or less formal are crystallized into an organization or an institution by actors who do have legitimate power.

If these contributions differ from one author to another they nevertheless reflect the various approaches explaining institutional change or creation; it is considered here that institutionalization is the conceptualization and operationalization of neo-institutionalism theory as it gives an overview of the process of institutional change and creation under its three main dimensions i.e. sociological, historical and rational choice. As IT, e-governance and e-government studies have found a fertile ground within these researches, especially in administrative reform. Hassan and Ramon (2008) stance that there are a good number of IT and E-governance studies which have already used institutional theory in their demonstration and are centered on 6 issues: IT adoption, innovation, institutionalization or assimilation of IT, IT and organizational change, and the enactment of IT organizations. These topics are interrelated; and can be treated separately or jointly using institutional theory. Of course different studies relative to e-governance in higher education greatly come across studies concerning IT adoption, innovation etc. in this sector or within the system (Rajeeta & Nishtha, 2013).

This paper therefore examine threats of the institutionalization of e-governance in Cameroon Higher Education, this process is analyzed under rational choice approach in order highlight the role played by the different actors in the integration of ICT in this system. It eventually shows what are the values assigned to this transformation by each of the present actors through their actions and decisions; and specifically what are their interconnections and interest within this process.

3. Research Methodology

For the purpose of the paper, a rational choice neo-institutionalism and policy transfer studies (Dolowitz and Marsh, 2001) have been used to determine the different actors taking part to the institutionalization of e-governance and ICT development, as well as their interactions in

Higher Education in Cameroon. Through this methodology, it has been possible to highlight the different resources mobilized by actors in order to gain legitimacy in Higher Education, as well as their interests in this process.

This paper have used a purely qualitative analysis based on empirical field and content analysis. Various interviews passed at the ministry of Higher education relative to the decision making process relative to the integration of E-governance within the system have been helpful to draw the analysis, the target of these interviews were head of offices and directorates of the Ministry.

As content analysis is concerned, information were gathered relative to official discourses and documents on E-governance integration in Cameroon Higher Education Sector, specifically from the President of the Republic and the Minister of Higher Education. This was used to highlight the meaning and values that the government assign to the integration of ICT in university multilevel governance. In addition to these discourses, we have equally analyzed the content of the various conventions and agreements between the government of Cameroon, the Ministry of Higher Education and its various partners in this domain as well as reports, and other official documents that contained important elements relative to the institutionalization of E-governance in Higher Education.

4. Findings

Institutionalization is a process that differ according to actors involved and the context, hence the integration of a decision, rules, or habits can differ from an environment to another and from a sector to another. For this reason it is argued that the process of e-governance integration in Higher education in Cameroon is different from other sectors in Cameroon. This have the particularity to be a public actions where various actors influence process of digitalization of Higher education system in Cameroon even though it is still widely under state control.

4.1 Institutionalization of e-governance in Higher Education: a State Controlled Process

The government through the Ministry of Higher Education holds the primordial role in the organization of HE system in Cameroon, in coordination with the various ministries in charge of Education and other strategic ministries. According to the decree of 2001 organizing HE in Cameroon, the state elaborates and implements, organizes and controls policies in this sector (law n°005 of April 16, 2001 relative to the orientation of Higher Education in Cameroon). The government of Cameroon completely controls the organization and functioning of HE system; it holds different powers over the system which is first of all elitism, that is a concentration of power in national government, large scale business or corporations and military (Lowndes and Roberts, 2013) . The authors stances that the focus on state as actor in elitism particularly address sociological, historical and rational choice institutions, and help to understand how the government concentrates and consolidates its power over other groups within the institution. While Eva (2014) underlines that in Germany and other countries with a system of academic self-governance, questions relative to academic profiles are the concern of academics themselves; whilst this is not the case in state centered model where the state is the main stakeholder.

The government of Cameroon therefore concentrates the power in its hands and tries to define strategies relative to the integration of E-governance into Cameroon HE system. This is done through the legitimacy and regulatory power it exercises over the system, we argue here that the diffusion of e-governance into HE system in Cameroon is vertical, passing through the state, the ministry and higher education institutions at the bottom.

For this purpose, the government uses discourses and behavior to legitimize the integration of ICT into HE system, According to Schmidt and Crespy (2011), Discourses play a significant role in the legitimation of public policies. Of course the discourse from public authorities enables the understanding of how the government perceives new norms and standards, and values they assign to these ones. The President of the Republic (2012 and 2018 discourses) as well as the Ministries involved in the digitalization of Education in Cameroon, especially that HE (Fame: 2016; 2017; 2019), undertake a communicative discourse on the integration of E-governance in Higher Education. Indeed these political actors are engaged in a mass process of public persuasion. In this process, political leaders, government spokespeople, party activists, spin doctors and others communicate the ideas developed in the coordinative discourse to the public for discussion, deliberation, and modification of the ideas in question.

The government equally uses behavior as a strategy in the institutionalization of E-Governance into higher education. Behavior practices as legitimation, according to Tallberg and Zürn (2019) refer to rules, procedures and policies put in place by OIs to strengthen their legitimacy. While this is equally the case with national government that uses behavior to legitimate their position towards the other actors taking part into the policy process. Of course the government, that is Ministry of HE tries to crystalize e-governance in this sector by adopting e-administration and e-services; this includes the computerization and digitalization of some services such as the Mail service as well as digitalization of registration procedures to public exams and results etc. As behavior is concerned, the ministry of higher Education has equally make use of social media as a mean to integrate ICT in ministry routine through the publication of day to day activities of the administration on applications such as Facebook and institutional website. The Ministry of Higher Education through such practices is gradually setting G2C communication which is one the pillar of e-government (Heeks, 2001).

Moreover, the adoption of ICT within the system have led to a strengthening of central administration power at the Ministry of Higher Education and an allocation of a budget line for the development of ICT within central administration and local administration. While intensively communicating on the necessity to join the information society and meet global development, the Ministry of HE did not operate any reshuffle of the administrative structure. There is no special service or directory is in charge of the question of digital transformation or E-governance of HE in Cameroon within the Ministry's organization (interview of the director of legal affairs at the ministry of Higher Education). Decisions and initiatives relative to the management of e-governance in this sector is redistributed in the central administration of the ministry (interview from the director of legal affairs at the ministry of higher education); each service or directory is in charge of its own digital innovation and the minister ensures only the coordination of these isolated transformations. Nowhere in this organigram their role and missions concerning the development of ICT is mentioned, they're more informal rule.

Hence the bureaucratic structure at the Ministry of HE in Cameroon as e-governance is concerned is far from being a formalized set of role expectations that specifies who is supposed to do to what, how and when (Tronland, 2019). Hassenteufel (2011) explains nevertheless that this organization is not strange as a plurality of administrative structures can be in charge a policy implementation; as it is the case in HE system in Cameroon where the questions relative to ICT implies a variety of directorate and services such as the Directorate of Coordination of Academic Activities, the Directorate of Quality and University Accreditations. The General Inspection of Academic Affairs. The Division of Legal Affairs, Directorate of HE Development, among others that constitute the legal and regulative authority concerning ICT for teaching and learning as well as governance in HE. In addition to these services we can

equally mention the Division of Information System (DIS), the Communication cell as well as the SIGIPES cell of the Ministry. They play a significant role in the digitalization of the HE system in Cameroon as technical organs in charge of Information System and technological development of the Ministry. As DSI and SIGIPES Cell are concerned, these positions appeared with the public administrative reform in the early 2000's where ICT was presented as a tool for good governance as it have been the case in majority of Sub-Saharan African countries (Heeks, 2001; shirin, 2008); the first one assists the Ministry and Universities especially in the public sector to operate transition from analog to digital management, while the second one consist of a decentralized application managed by the Ministry of Public Service and Administrative Reform for the computerized and digital management of state human resources. This application have been deployed in the various ministries in Cameroon to facilitate by deconcentrating the management of state human resources via an integrated computer System. These services represent the actors that are involved at the higher level in the digitalization of HE in Cameroon they are the top decision makers of norms and logic of appropriateness as the use of ICT is concerned.

While arguing that this new organization have significantly impacted the integration of e-governance in higher education, we stance that the government equally contributes to the crystallization of e-governance in Higher Education by creating a legal and institutional framework for the expansion of ICT in this sector. The government of Cameroon have engaged into the reform of the HE sector since the early 2009. In this new university governance, it intends to develop and implement ICT within university governance. This reform is a response to the pre-conference of World Conference on Higher Education Held by UNESCO in 2009 in Paris. This pre-conference took place in Dakar relative to HE in Africa where participants have largely come across the different challenges of HE in Africa among what professionalization of teaching, quality education and ICT for teaching and learning. In the new University governance program of the state of Cameroon, the Ministry of HE intends to develop the innovative uses of ICT in HE, Develop specialized training courses for ICT , build teachers' capacity in ICT, build IT infrastructures and improve the monitory and management of ICT development in HE (NEW UNIVERSITY GOVERNANCE PROGRAM, 2007) through the program called Programme d'Appui à la Réalisation de l'Intergration des TIC dans l'Enseignement Superieur (PARI-TICE), akin the initiative developed by UNESCO in partnership with CAMES and AUF in Western Africa Countries. In addition to this program, the Ministry of Higher Education have equally launched an ICT project in named "E-National Higher Education Project". This is known as the main project relative to the digitalization of HE in Cameroon. It is part of the new university governance put in place by the government. This project consists of the implementation of IT infrastructure in all public universities in Cameroon, certain private universities and the Cameroon-Congo University. It includes the construction of IT centers for the diffusion of e-learning in all public universities in Cameroon , distribution of laptop to university students in public and private HEI, the implementation of an intranet between all public universities, the implementation of e-administration, e-learning, creation of national virtual university etc. According to the minister of Higher Education, this project intends to deal away with massification of public institutions in HE and insure quality education and professionalization of teachings through ICT.

While acting for the construction of an e-readiness environment for the diffusion of E-governance within Higher Education sector, the ministry have equally led to the creation of new structures and to the improvement of already existing ones that ambition to instore a digital culture in HE and regulate the latter (Ministère de l'enseignement superieur-Cameroun; 2017). These structures implies vocational and training schools which according to UNESCO

and other international Organizations such as World Bank are considered as a pillar of professional training and education in the tertiary education system. This is the case of ESSTIC and SUPPTIC which denomination and missions have been changed and improved to include ICT as a specialized and professionalized institutions education and training in Cameroon, the government have equally led to the creation of Two virtual universities; Virtual University of Africa and Pan African Virtual University, considered as of the first experience of university offering Distance education and e- learning in the Country in collaboration with international partners. HE in Cameroon have equally been endowed with the Excellence Center for ICT (CETIC) in collaboration with World Bank which role is to offer the various ICT training and learning programs etc . In addition to these examples, the government have equally led to the creation of specialized agencies for the promotion and implementation of ICT within HE system this include: Institute of University E-governance, Interuniversity Center for Documentary Resources, Center for Distance Education Project, Inter-University Network in Cameroon (INC) also known as “RIC”; Interuniversity Center for Information Technology. These different structures have been put in place by the government of Cameroon for the implementation and management of ICT in HE, they appear to be specialized agencies involved in general management of ICT, e-learning, distance education, digital library etc.

Some of the actions and decisions taken by the government of Cameroon through the Ministry of Higher Education in the internalization of e-governance in Higher Education, it starts bringing in new habits into the system which is that of the use of ICT in at every level of university governance in Cameroon. But the government is not the only actors in this process as we have already up-mentioned, other actors equally contribute to crystallization of e-governance within HE system in Cameroon.

4.2 The influence of coalition actors in the institutionalization of E-governance in Cameroon Higher Education System

Despite the fact that the process of institutionalizing E-governance into higher education is highly influenced by the government especially in public institutions, this one is equally impacted by actors that form a coalition in the adaptation and harmonization of national education systems. Hence, E-governance or ICT development in HE system in Cameroon is equally influenced by the actions and interactions of different actors at the international and regional level that form a coalition, sharing the same beliefs and values as HE is concerned. These ones hold just like the state various resources but while developing this point we should mention here that the various actors we are presenting here are transfer agents that have equally play a significant role in compelling the government of Cameroon to adopt neoliberal ideas such as “E-governance”. Of course, e-governance and ICT development in HE is the emanation of structural forces guided by international Organization and coalitions actors such as AUF, CAMES and Commonwealth that act for the harmonization of ICT4E practices at the global level and that in the case of Cameroon this have been done coercively under international pressure.

The World Bank contributes to Education reforms in Cameroon by supporting financially the country. In 2018, a project appraisal of about US\$ 130 Million was requested by the State of Cameroon to undertake reforms in the Education system in general World Bank. The project involves the development of an Education Management Information System from primary school to HE and Vocational Training, it aims at the end to establish a fully integrated EMIS, which is highly deconcentrated and includes the use of ICT to reduce the cost and improve timeless in the production and dissemination of reports. By providing financial support to the Country under specific conditions, it engages the country to respect her international

commitment relative to ICT4E in Higher Education and contributes to the crystallization of ICT within HE. The bank often works in close collaboration with various development partners such as Agence Française de Développement, European Union, Unesco and Islamic Bank of Development to help at the realization of development projects relative to education in Cameroon and the building of EMIS in Cameroon education is supported by these institutions in coalition with the World Bank. In addition to financial support, the Bank equally contribute to the institutionalization of TVET as well as the development of E-learning in this Higher Education.

The World Bank have launched the creation of Centers of Excellence for ICT in Africa among which the CETIC of University of Yaoundé I in Cameroon. Of course the CETIC center in Cameroon is a World Bank-Cameroon partnership. The bank supports the center by providing the necessary financial resources to support its activities. This implication of the bank in the implementation of CETIC has given the opportunity to higher education to provide E-learning experiences to students but also to benefit from ICT teachings among other fields of studies. In addition to the creation of CETIC, The Bank have equally contributed to the implementation of African Virtual University in Cameroon in 2014. The project is presented as one the main innovation concerning E-learning in Africa, the African Virtual University (AVU) in directed by the African Bank of Development (ABD) have been supported financially by the WB. This project has been launched in 1994 as “*A World Bank initiative to support a tap global knowledge and learning network to meet Africa’s educational needs*” (International Bank for Reconstruction and Development, 2003). The African Development Bank on the other hand, together with the Islamic Development Bank have participated to a total amount of US\$ 200 Million to the development of this CAB project. Hence through the funding of this project, the AFDB provides financial resources for the technological and technical components necessary for the digitalization of HE in Cameroon; and this support constitutes the background of IT infrastructure for the provision of internet network for HE in particular and Cameroon society in general. The Bank assists the government in the building of E-readiness for distance education and e-learning in Cameroon, while it should be outline that the “Central African Backbone” is a regional project including Cameroon, Chad, Democratic Republic of Congo, Gabon, Republic of Congo and Sao Tomé and Príncipe; relative to the development of fiber-optic internet within the region.

Concerning African Union, the organization works for the harmonization of Education subsystem within the continent and have contributed to the implementation of the Pan African Virtual University in Cameroon in 2019. As a member of the organization, the State of Cameroon is subject to the various policies in the domain of Education put in place this one. This project was launched in Cameroon in December 2019, with the objectives to promote and popularize Pan African Virtual University and E-University, discuss the potential implementation and contribution of African University Academic and Research landscape as well as the its opportunity in addressing African Unions Agenda 2063. According to Nana and Tankeu (2012), the country have also being able to benefit from an agreement with the State of India over a Pan African e-network for the promotion of e-learning, telemedicine, diplomatic communication. The country has signed this agreement in 2005 and was launched at the University of Yaoundé I.

UNESCO, Commonwealth and AUF, each of these institutions works in close collaboration with the government in the institutionalization of ICT4E in Higher education in Cameroon but equally work in coalition with each other in different projects for the promotion of quality education, education for all and harmonization of educational system in Africa and beyond. we

can notice within the various education strategic document of the country that UNESCO take actively part to decision making process concerning E-education reform in Cameroon, it is the main promoter of the EMIS initiative in Cameroon that aimed to create an integrated information system from the primary school to higher education and equality promotes quality education in Education by taking a closer look at the improvements of the country in terms of Education For All program and SDGs, as well as harmonization of international policies such as LMD system in higher Education. The organization have established in Cameroon the UNESCO CHAIR ON ICT at the University of Yaoundé I, which aim is to promote and support the sector by providing scholarships, increasing the supply of training through the establishment of universities national and subnational projects and as well as the development and popularization of computer tools, teachers training etc. Concerning Commonwealth through its agency Commonwealth of learning and AUF, they act in collaboration and coordination with the various partners involved in the digitalization of HE in Cameroon (Nkwenti, 2006; Agence Universitaire pour la Francophonie, 2019). They represent more often a relay to international programs relative to ICT in HE. They have less constraining power but due to their position and legitimacy into the international system they can influence institutional and policy change within their member states and Cameroon being part of these two organizations is subject to their intervention. Concerning the domain of education, the COL of the commonwealth pays a particular attention to higher education in Cameroon and the opportunities of ODL in the national system.

Agence Universitaire de la Francophonie (AUF), on the other side have chosen the creation of poles and works directly with public universities under the supervision of the Ministry of Higher Education for the diffusion of ideas and values relative to ICT4E. Through the program “Digital Campuses”, the agency tries to maintain its legitimacy by undertaking various initiatives in the member states relative to e-learning and distance education. It offers teachers training and capacity building in ICT4E in Cameroon and African member countries. With the establishment of IFGNU in Cameroon, AUF intends to become the main partner of digitalization of e-governance in public universities by proposing assistance and guidelines for effective implementation of e-learning and distance education in Cameroon. Just like Unesco, COL, the World Bank, it equally works for the effective integration of global sectorial policies such as LMD system and the achievement of Education For All etc.

The French Institute for University Governance also contributes significantly to the emergence of AUF as a major actor in the higher education policies landscape in Cameroon. The institution which is a branch of AUF is located at the university of Yaoundé 1 Ngoa Ekellé, it supports HEIs and their tutorship to improve higher education performances by providing governance tools, education, planning, strategic monitoring and evaluation. In 2019 the institute jointly organized with the higher French school for administration and management (ESFAM), a seminar on university governance at the digital era, in association with the IFGNU at the University of Yaoundé I; the AUF is having a particular interest in ICT4E in higher education and this is translated towards all the AUF agencies and OIF in general. The objective of this seminar was to promote the use of ICT in university governance and identify concrete measures that can foster universities capacity and explore new partnerships.

In Addition to these various actors, there are equally two main actors that influence the integration of ICT in Higher Education at the regional level; The African and Malagasy Council for Higher Education (CAMES) is a coordination organism that can be traced back to 1960's; it emerged from the desire to find solutions to common problems faced by francophone countries and Malagasy higher education and just like Association for Development for

Education in Africa (ADEA) work for the harmonization of education systems and programs in Africa. . Hence the CAMES contribute to the digital turn in Cameroon Higher Education by encouraging the training of CAMES candidates and lecturers to ICT , of course since few years now the agency is actively working for the promotion of ICT through virtual conferences and the implementation of Quality–Assurance for ICT, International conference for the 50th anniversary of the institution have largely come across the question of ICT in the CAMES space to which it intends to put on more efforts to encourage members states on the necessity to develop ODL and educational technologies within CAMES space (Ngou-Milama, 2018). The program “Silhouette” have become compulsory for members in order to take part to all different evaluation programs proposed by the institution.

ADEA on the other hand is an association created by the World Bank in 1988 to ensure a better coordination among development agencies in the domain of Education in Africa. It has become over time a pan African institution based on a partnership between African Ministries of Education and between them and development partners. The ADEA acts like the Global Partnership for Education but at the regional level and does not provide any grant or financial assistance. The Association in partnership with UNICEF, UNESCO etc. as well as AFD and AU takes actively part to education reform in the domain of Education in Cameroon, this have been the case of the 1993 reform of HE in Cameroon, it eventually assist the country in the development of the strategic education plan in Cameroon involving Primary, Secondary and tertiary education eventually with the implementation of EMIS within these various systems. According to the Global Partnership for Development, as ICT in Education is concerned, the role of ADEA in the EMIS is the monitoring of integrated information systems in education systems in Africa and their monitoring. Hence HE being among the Ministries of Education in Cameroon, they work in collaboration for the implementation of SIGE (EMIS) within the various systems including this one.

4.3 Policy Network and the institutionalization of e-governance: The influence of IT companies and bilateral cooperation in the digitalization of Higher Education in Cameroon.

Policy network can eventually takes different forms, but involves most of the time a bargaining between actors who may have different power; the conception of actors in the explanation of policy change is highly affected by neo institutionalism of rational choice that implies a particular attention to interaction of actors into a system that are bounded by depend of their resources (Larry, 2008). It equally refers to the set of political actors inside and outside government who are involved in, or take an interest in, the making of public policy, and/or the relations between these actors (Compston, 2009). Private sector play an important role in development today the MDG 8 already drawn attention of countries in the Public Private Partnership (PPP) for development and their participation to public action. The PPP is defined by the WBG as a tool that governments can use to contribute to the implementation of better public services and among the various partners of the ministry of HE relative to the internalization of e-governance in HEIS is the multinational company Orange SA. This is a French telecommunication company that has a great share of the market in Europe, Middle East and Africa; with about 300 million subscribers to this network. Recently, Orange SA have been investing the public sector to support the Ministry of Higher Education in its digitalization policy of higher education in Cameroon. Hence, the company have signed in 2018 a convention with the Ministry of Higher Education with the aim of promoting digital transformation of public universities in Cameroon. For instance, in this convention signed between the general manager of Orange SA; Frederick Debord and the Minister of Higher Education on April, 2018

the company have decided to support the ministry in its modernization policy of Higher Education through the development of technological solutions and telecommunication for teachings within Cameroon public universities and professional schools.

The telecommunication company have proposed its services and expertise relative to E-education and particularly ICT solutions to reinforce e-development in public universities, an initiative that have been approved by both the minister and public institutions. The ministry of higher education in the same run have also comes into an agreement with the national telecommunication company of Cameroon (CAMTEL). CAMTEL figures among the main actors of the public sector engaged actively in the ICT development policy of the state of Cameroon. Together with the MINPOSTEL and in accordance with the President of the Republic and national prerogatives; CAMTEL works for the vulgarization of ICT in Cameroon and that of telecommunication in particularly with the implementation of ICT infrastructure within the national triangle. Moreover, the Cameroon telecommunication (CAMTEL) has signed a specific agreement with the Ministry of Higher Education; the expertise of the company have been requested by the ministry of higher education to support the project concerning the interconnection of Cameroon's public universities through the provision of IT infrastructures for the implementation and development of ICT in HEIS. It should also be mentioned here that CAMTEL is the main provider of fixed telephony and internet in public HEIs.

Furthermore in the context of ICT development and E-governance, the government of Cameroon has signed a convention with the Microsoft Company. The convention between the two parties did not only focus on education as a whole but, is redirected to tertiary education, with a number of specific objectives and supports the government in the modernization of the education sector by collaborating over the implementation E-training and learning; the building of digital campus, support to research and innovation, implementing a favorable ecosystem for the assembling and local production of products and ICT based contents and finally the implementation of a ICT management program as well as its operability. In addition to the collaboration of Microsoft Company, the ministry of Higher has come into partnership with the Chinese company called Sichuan telecom. Sichuan telecom specialized in IT together with Huawei Telecom for the implementation of the national computer network of higher education. The Ministry of Higher Education with the agreement of various HEIS of the public sector, have signed a convention with the Chinese company to conduct feasibility studies and environmental studies for the technical, financial and legal buildup of the national computer network of higher education project and the structure of the project corpus to submit the approval of ministry's expert with the contribution of state's universities and concerned administrations (Fame, 2016). Of course the company have produced for the ministry of higher education of 500.000 computers, The ministry of higher education have proceed from 2016 to the distribution of these laptops, which are among the various pedagogic and learning materials used for ICT4E, and is still operating the distribution of remaining material to public and private HEI students across the national triangle. It have been particularly difficult to relate the direct influence of intermediary actors in the implementation of e-governance in H.E.

The cooperation between states equally greatly impacts the process of ICT policy design and implementation in Higher Education. This is done through Official Development Assistance, this is the case of various countries such as China, Israel, but involves equally IO such as European Union that have been particularly invested in the development of ICT in public sector in Cameroon. The Republic of China is one of the main partner of the State of Cameroon in the digitalization of HE through the financial and technical assistance; For the purpose of the E-

national higher education; the Ministry of Economy Planning And Territory Development have come into an agreement with the Popular Republic of China on June 2015 at Beijing where the two parties agreed for the financing of this project; after what the ministry of higher education was authorized to signed an agreement In 2016 with the Sichuan Telecom for the manufacturing of 500 000 laptops for the project “one student-one computer” put in place by the ministry in 2015. This project was funded by the Exim bank of China up to 75 billion Fcfa under the form of loan over a period of 20 years (Fame, 2016). In addition to the Republic of China; the State Israel is equally making an intrusion in HE through the construction of IT centers in HE. Of course, the country has recently support the state of Cameroon in the implementation of one of the first 3D printing center of the sub-central African region. This 3D printing high-tech center costs 2.8 billion CFAF to the government of Cameroon that rather benefited from the technical and technological know-how of the state of Israel.

Realized by the Israeli company, SELA Education Initiatives LTD, (Fame, 2019) which in 2017 signed an agreement with the Ministry of Higher Education to this effect (www.cameroontribune.com). This is a relatively new domain of collaboration as the cooperation between the State of Israel and that of Cameroon over education, has principally consisted of technical assistance and scholarships in the domain of Agriculture. As European Union is concerned, the organization is presented here as a partner in the development of ICT in HE too, Concerning the domain of education, the institution has recently propose to support research and innovation in higher education, in agriculture, health, and ICTs. For this purpose, the European Union proposed a financial support of 80 billion of Euro to this effect (www.actucameroon.com). An encounter with the Minister of Higher Education in October 9, 2019 have been necessary for the European Union delegation to inform the minister about funding mechanisms of this project. If the main objective of this project is to support research and researchers in Africa and Cameroon in particular in order to rally research (scientific) to socio-economic environment, the financial contribution of European union to ICT development in higher education can to an extend be favorable to implement new technological trainings in ICT but also develop ICT4E in Cameroon’s higher education system.

5. Discussion

The institutionalization of e-governance in Cameroon is a process driven by political mechanism, as explained by Bidwell (2013); the strategy put in place by the government of Cameroon to participate to the construction of an information society has led to the transformation of some sectors such as Higher education and modify the interaction of actors in this frame. Actors taking part to this process have a common understanding of the necessity to integrate E-governance into Higher education but have divergent interests and act accordingly. The various initiatives, decisions and actions taken by actors in this domain are numerous and far from being coordinated, they are often parallel to each other and at the limit compete with the various programs put in place by the government and public enterprises. Nevertheless, this contributes to change in behaviors in Higher Education. Hence in the process of institutionalization of E-governance in Higher Education in Cameroon, there is a struggle for power of different stakeholders to legitimate their position in the definition of what is socially acceptable and gain legitimacy as well in this process thereby achieving their respective objectives or goals. In fact, each of the actors try to create opportunities to maximize their utilities inside the institution in consideration of the rule and norms affected to this one (Lowndes and Roberts, 2013).

Institutionalization of E-governance in Cameroon Higher Education is a top-down process, the state controls the decision making relative even though some of the initiatives put in place by

the government in this sector are subject to policy transfer from internationalization and globalization of teaching and training. The transfer is influenced by norm entrepreneurs such as World Bank group, UNESCO and regional cooperation with CEMAC, CAMES and ADEA that form what was mentioned as advocacy coalition actors. Coalition actors often promote the digitalization of Higher Education as a mean to achieve quality education and insurance, and above all harmonization and standardization of Education System at the regional and global levels. This is the case of programs such as Education for All, LMD System, EMIS, and integration of ICT4E, which are international or regional programs promoting ICT in education system in general and Higher Education in particular. The influence of coalition actors in the institutionalization of e-governance in Cameroon therefore strengthens the position of these ones as norm entrepreneurs in the domain of Higher Education, capable of influencing policy making and define what appropriate (Finnemore & Sinnick, 1998). This assumption supports the argument of Heinz-Dieter (2013) according to which institutionalization is matter of legitimacy as well as power.

As legitimacy and power is concerned, besides the adoption of these policies and programs resulting from the international normative transfer, the government tries to integrate E-governance in Higher Education by putting in place national innovations. These latter pass through the adoption of new habitus modelled in discourses, behaviors, which objective is to crystalize in the long run the use of ICT in Higher education. In this process, the government equally operates cognitive transfer by adopting habits already developed in other political systems, this is the case of PARITICE program and One-Computer/One-Student initiatives. These programs have already being experienced in different countries such as Senegal, Guinea, and Rwanda. In the institutionalization of ICT in education systems. In the same view, the government of Cameroon have expanded teachings and training of ICT in HEIS as a mean to promote ICT in this sector, by so doing, it expects to incrementally transform the system and integrate these technologies at all levels of governance. The diversity of initiatives and strategies put in place by the ministry of Higher Education reflects the global policy put in place by the government of Cameroon in the National Information and Communication Infrastructure (2007) and National Digital Strategic plan (2015). In these various plans the government ambitions to contribute to the information society by introducing ICT in different sector such as Higher Education which is considered here as one of the pillar of this strategy through the digitalization of learning, teachings and administration. This ambition do not only take into consideration the modernization of this education system, but encompasses a much larger strategy for the socio economic and political development of the country. Through this process, the government strengthens its legitimacy over the institutionalization of e-governance in the political system, thereby affecting the behavior of other actors in this one.

Notwithstanding, the opening of the country to information society have led to the liberalization of telecommunication sector and the emergence of private sector in this domain. Of course with the opening of telecommunication sector to competition, the private Telecoms and IT companies have invest the sector thereby challenging the national telecommunication company CAMTEL within the national market; moreover, the ambition of the government and ministry of Higher Education to digitalize the system have given to these companies operating at the national and international system a widow of opportunity through which they can influence the institutionalization of e-governance in Higher Education. This is the case of Companies such as Orange SA, Microsoft etc. that are upgrading their role in this sector through their financial and technical support necessary for the development of IT solutions in various domains. According to Patrick H. (2011), individuals can have a capacity of relative autonomy to undertake strategic choices within a given context that does not completely constraint him. In

this case, there is a transformation of Cameroon Telecommunications companies' partnership with Higher Education, while they have for decades contributed to non-teaching and non-pedagogic activities by financing socio cultural activities of universities such as Universities sport competitions etc. (Ngwe & Pokam, 2017), they are now active partners in the construction of digitalization of Higher Education by putting into contribution their knowledge, know-how and experience as well as technical resources to the benefit of this sector; even though the interest of all these actions still remain commercial benefits.

This is eventually the case of bilateral cooperation that equally greatly influence the integration of ICT in Higher Education in Cameroon. The cooperation with countries such as China, Israel or Governmental Organizations such as European Union have enabled the country to develop programs and trainings for the integration of e-governance and ICT in general in Higher Education. Not only Cameroon benefits from the cooperation, these different countries equally strengthen their geostrategic position in Cameroon by providing financial and technical support in ICT development and integration in Higher Education. The various actions undertaken by bilateral partners of the Republic of Cameroon in the digitalization of Higher Education contribute to the transformation of the environment and introduction of new habits in this sector in a more or less direct manner.

6. Conclusion

As stated by Stone (2019), policy process from agenda setting, to evaluation passing through implementation and monitoring is no more a state centric activity, it involves networks at the global and regional level with the participation of international organizational and multilateral body. The new university governance in Cameroon based on ICT has favored an enlargement of actors influencing decision making; the state is no more the only actor even though it remains main one in this process as higher education is concerned. Other actors such as International and Regional Organizations, private sector and cooperation have a more or less direct influence in the development ICT in Higher Education in Cameroon. The various actions and interactions of these actors within the system therefore contribute to the incremental integration of E-governance into the system. Of course future research can be made on the evaluation of all these ICT policies and Initiatives in Higher Education quality assurance and student benefits and lessons that can be drawn from the various experience of the country in the realm of E-governance into Higher Education System.

7. Recommendations

This section proposes two main recommendations for the effectiveness and efficiency of e-governance integration into Cameroon's Higher Education system: the coordination of actors and the definition of clear objectives concerning the digitalization of Higher Education system in order for each actor to provide a relevant and impactful contribution in the process of institutionalization.

It has been highlighted in the previous lines that the institutionalization of e-governance in Cameroon is a public action, with multi stakeholders taking part to this process from the public and private sector; at the national and international level. This evidence is nevertheless a complexity in the process of institutionalization because their various actions actually lack coordination. According to Cejudo and Michel (2015), coordination is the instrument and mechanisms that aim to reduce voluntary or forced alignment task and effects of organizations within the public sector. They go forward to explain that these mechanisms are used in order to create greater coherence and reduce redundancy, lacunae and contradictions within and between policy, implementation and management. In the case of the institutionalization of e-governance

in Higher Education, redundancy is of course a complexity. All the actors involved in this process put in place the same initiatives or policies, and these strategies seem therefore to lack coherence because they appear parallel to each other, nourish by the various interests of actors in presence. Therefore, there is a need for a greater coordination of rules, responsibilities that will frame actors' participation into decision making as e-governance integration into higher education in Cameroon is concerned.

In the same view, the lack of clear objective in the digitalization of e-governance is actually a complexity in this process in higher education system. As Cameroon is concerned, the government has not yet formulated a clear policy relative to the digitalization of Higher Education System. The process of e-governance institutionalization in Cameroon is indeed a set of fragmented initiatives, it has been particularly difficult during the research to have empirical evidence on the objectives the government intends to meet in the digitalization of Higher education and the means through which they can be achieved. The project of E-National Higher Education Project for instance is not enough to explain the ambitions pursuit by the government at the level of the administration, university governance, student services and care and that of public. There still persists shades on the instruments and mechanisms through which ICT can be routinized into Higher Education system. Of course the lack of clear objectives also affects the coordination as up mentioned due to redundancy; such as the E-National Higher Education Project which is similar to EMIE and SIGE from World Bank and UNESCO respectively. The effect of such redundancy may be a waste of resources; it is therefore important to define clear objectives and strategies of e-governance institutionalization in Cameroon's higher education in order to avoid dispersion of resources.

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