THE PROMINENCE OF THE NAPOLEONIC MODEL OF HIGHER EDUCATION IN THE KNOWLEDGE ECONOMY

Drawn on a historical analysis of the main pillars of modern higher education systems which are globally diffused and transcend international boundaries (Clark 1983; Ben-David 1977; Fox and Weisz 1980), professional higher education, thus higher education for employment and direct application is identified as a French historical model of thinking the role of higher education which was remarkably fostered from the era of Napoleon. In this article we examine how the professional model of thinking the role of higher education addresses and incorporates other models which perceived the roles of higher education in the modern society similarly or differently. The analyses led to the identification of ten models with related roles on the basis of which a questionnaire composed of thirty two questions was administered to teachers and students of higher education management. The first observation that results from the desktop review on the history of the French model of higher education is a dominant transition from structural to programmatic professionalization, whereby professionalization which was a function of specialised establishments is becoming the function and mission of all academic programmes. This pattern is discernible in France itself or within the French model overseas, the case herein of Cameroon. A main result of the study is that although professionalization remains prominent and indeed a priority, it only covers about half of the roles of higher education some of which could address some of the objectives aimed at in professionalization policies and strategies. We also conclude that recent changes in the higher education landscape have brought into lime light, alternative models which call on a change in perspectives about the role of higher education and changes in professionalization strategies. This is the case of the knowledge and learning economy models which may suggest the importance of professionalization tackling employability capacities through learning, problem solving and other survival approaches rather being limited to employment and direct application.
Key words: Professionalization, model, university, employment, application, France, Cameroon.

1.0 Introduction

Despite having originated as creatures of the nation states, the university and respective system has traditionally remained one of the most international institutions. Also some higher education systems have been the foundations of others and therefore more international with basic philosophies and models transcending national boundaries. In this paper, we discuss professionalization as a French model of higher education within its national boundary in France and abroad in Cameroon. Scholarships which present professionalization of the French university system as a 1960 phenomenon according to which, professionalisation was a function for certain specialised-professional institutions called the Grandes Ecoles, the mission of the university was mostly culture (Leroux 2014) maybe historically misleading. This is because of the historical traceability of the underlying belief and philosophical underpinnings of professionalization in France far earlier before the “ancien régime” (former) regime which was swept away by the French revolution in 1789 (see Fox and Weisz 1980). This French professionalization belief about higher education for direct application and professions “l´enseignement supérieur pour l´application et le métier” is further fostered more greatly and structurally up to the early 19th Century by Napoleon Bonaparte, a French military and political leader who rose to fame during the French revolution. He became the French Consul in 1799 and Emperor in 1804.

Of the higher education systems that constitute the four major pillars and main models of global higher education (as per Ben-David 1977), professional and specialised education was the French model contribution to higher education worth research-scientific education was to the German system and liberal education the British (Fox & Weisz 1980; Ben-David 1977; Clark 1983; Geiger 1985; Turner 1971; Turner 2001, Mendelssohn 1964, Rothblatt 1993). In addition is the later vertical organisation of the university into teaching and research cycles as the American historical contribution (Turner 2001). Drawn on this professionalization belief and philosophy greatly attributed to France the 1960 phenomenon marked by the Edgar Faure Act was simply a transition from structural professionalization dominated by the Grandes Ecoles to programmatic professionalization. This stance is void of further controversies that could emerge as to if natural, chemical and quantitative sciences programmes (Biology, Chemistry, Physics, Mathematics) in the main university whose graduates could be found applying in the laboratories and industries and
even some historical and social sciences could not be classified as professional programmes. This is also with respect to professionalization as a concept of employability and application (see 1.2).

The article sought to examine how professionalization justifies the Napoleonic Model in terms of higher education for the profession and application today, and how the professional model of thinking the role of higher education addresses and incorporates other models of higher education. In other words, to what extent does professionalization reflect other roles and models of higher education and how are the other roles and models contained in the professionalization model. A qualitative approach comprised of a structured questionnaire and minor interviews was employed. The theoretical framework was composed from the concepts of systemic cultures and beliefs in higher education (Clark 1983). The authors adopt both a descriptive and historical approach in analysing the French model of higher education. The chronological scope of the analysis is limited from the end of the French Revolution, *ancien régime* in 1789 with the advent of Napoleon Bonaparte. The analysis ends with the 1968 revolutions after when an overall professionalization of the French higher education system is proposed as per the Edgar Faure Act of 1968. These two dates and the respective revolutions (1789 and 1968) buttress an assertion that revolutions of socio-political and economic natures have been important triggers of significant reforms in French higher education. The Napoleonic philosophy adopted to describe the French higher education, thus Napoleonic model has been adopted as a starting point because the Napoleonic period as outcome of the French revolution is noted as one of the main historical period of significant reforms in French higher education and that has been largely documented thus providing material for analysis. In point of fact, the French constitution states that the higher education in France will be organised on the bases of principles of “*Obligatory, Free and Circular education*” inspired from the French Revolution of 1789. According to this principle education is the task of the government: it is the government that educates. From this point and era, education is philosophised as a power as would be the executive and legislative powers as arms of government. The paper also employs a descriptive approach to portray how the higher education system in Cameroon was French model, through the similarity in the structures, the organisational behaviours and related reforms. A synthesis of different models of higher education is made to examine the links and missing links with professionalization policies and vice versa, then conclusions drawn as to if and how the prominence of professionalization gives reason to the French belief on higher education.
1.2. **Conceptualising professionalization in higher education**

The departure point for defining professionalization is that it is the policies and strategies aimed at improving graduates’ employability and thereby providing the productive and innovation system with a flow of highly skilled workers. According to this departure point, professionalization in higher education is a concept of employment (see Leroux 2014). However, this concept of employment though an essential point of departure for most definitions seems limited and challenged by today’s higher education dynamics. There is the importance and preference of defining and conceptualising professionalization as a concept of “employability” and job “adaptability” rather than simply “employment”. This preference refers to the ability of the university to impart job relevant but above all, problem solving and learning skills that should enable the graduate survive in the ever changing job market dynamics today. According to this perspective, it should not be about obtaining and creating jobs but ability of maintaining the jobs (Hillage and Pollard 1998).

Hillage and Pollard (1998) further points to the importance of the graduate skills and related ability to change and switch jobs. This perspective is also very relevant in today’s fast rate innovation and productive systems whereby jobs and skills easily become obsolete. Competences, occupations and jobs are easily displaced, giving rise to new ones. Other scholars perceive professionalization as adequate and efficient if the obtained job matches the acquired qualification. According to this perspective, it is not only about obtaining any type of job in which case may be under employment or over employment but the match with the qualification and training (see Yorke (2001; Knight and Yorke 2000). Doh (2012) defined professionalization in Cameroon as the strategy to adapt curriculum and its related technologies (teaching and learning) to socio-professional needs and applicability (Doh 2012, 143). According to this perspective, it is a broader package of strategies covering all programmes, from new to old professional programmes, direct development programmes, traditionally known vocational, business, market friendly to classical and non market friendly programmes. This broader package even includes the development, expansion, updating of the former professional schools within a recent university dominated system (ibid). It is about professionalizing all the programmes in the university.

2.0 **Theoretical Framework**

For various reasons, French higher education represents both an international system and model of higher education (Clark 1983; Ben David
1977) and could be rooted in Burton Clark’s concept of belief and its relationship to cultures and structures in higher education (Clark 1983, 72-106). According to this sociological literature, various participants and entities have often constructed their own meanings of higher education which produce the cultures and structures of higher education systems and it is through these structures and cultures that higher education systems have been identified. Ben-David (1977) noted that the French higher education system composed of disparate structures of establishments called Grandes Ecoles up to the mid 1920s because of the belief in direct professional applications since they were often planned and regulated by the government according to specific professional and administrative needs. Consequently the Grandes Ecoles were created by different ministries based on their specific purposes with little rationale to be attached to each other. In France different Faculty-like structures were merged into the likes of a cooperate entity to compose the modern university only until 1968 through the Faure Act. The name university had been used as a designation of several loosely linked faculties in 1896 (ibid.) Clark (1983, 49) argued that each system arrives at its own clustering of knowledge as well as sequencing and that a common systemic belief helps define for participants what they are doing and why they are doing what they do.

The belief and interpretation consequently establish the system’s doctrine, or somewhat, a circular version of the system’s religion in higher education which creates the systemic identity. According to the author, it is through such symbols and technical structures that higher systems are generally known by outsiders. For instance the German higher education system was traditionally known to be relatively scientific, the Italians relatively humanistic, the Anglo-Americans oriented to general education and French, specialised professional education. Clark also articulates on the “systemness” of the beliefs in the sense where the beliefs have their principal source and attachment in national systems as a whole. Beliefs and cultures have been historically strongly connected to the social foundations on which they operate. According to this thesis higher education systems traditionally turned to be expression of specific social agreements and historical context after which they operate. However, Burton Clark seemed to have missed in the analysis the extension, internationalisation and export of the different higher education systems and models beyond their national or continental boundaries and their implications. Shils and Roberts (2004) observed the world’s idea of the university in the 19th Century to be a European one. According to Shils and Roberts (2004), all universities outside Europe were formed in accordance with an image of the European University, with South America importing from Spain, North America, India, Australia and South Africa from Britain, United States from Germany and finally, French
North, West and Central Africa, Syria and Indo-china showing the impact of the French higher education model in the last 50 years of the last century. Given the French colonial history, this French model was copied in most of the colonies and in point of fact, Castells observed the adoption of the French model in most of the colonies as a cultural imposition (Castells 2001).

2.1 The French Model and related belief.

2.1.1 Structural Professionalization

The French philosophy of higher education for the profession and application has transited from structural professionalization, through the Grandes Ecoles to University dominated programmatic professionalization while maintaining features of the former within the university dominated system adopted in the 1960s (also see Leroux 2014). Marked by an extensive reorganization of the French Higher Education System between 1806 and 1811, the Napoleonic era is one of the main historical moments with significant reforms preceeding the 20th Century. It is the period during which a clear picture of French philosophy on higher education can be observed following suggestions during the French revolution. It is during this era that universities created during the old ancien regime are suspended and a Faculty system introduced on the basis of criticisms, agitations and recommendations made during the French revolution. During this period Napoleon fosters the structural professionalization with related philosophy through the creation of several of the main Grandes Ecoles that have remained up until today to train the elite cadres and engineers.

Fox and Weisz (1980) observe that it was an entire characteristic of this period that whenever the need for a new kind of specialist was felt, “it was met by the creation of another Grande Ecole”. This French perspective for higher education as a response to demands for specialists explains the priority for creation of the famous Ecole Polytechnique in Paris (1794) to provide grounding in engineering and science, the Ecole des Pont et Chaussée for civil engineers and public works, the Ecole Normale resurrected by Napoleon in 1808 for teacher training and the Ecole Veterinaire in Alfort for Surgeons. Fox and weisz remark that it was a period of democratic dream in which the central administration prescribed almost all inviolate career patterns and enforced them through closely supervised institution. This also explains why the Grandes Ecoles were created by other Ministries (see 2.0); the example of the Ecole Polytechnique under the Ministry of Defence and the Ecole des Art et Metier under the Ministry of Commerce. According to the French philosophy and model, higher education should be meant for direct applicability and to an
employment and should be structured with related entry conditions as such. We observe that the pro-application and professionalisation belief also influenced the admission model into the Grandes Ecoles which was highly selective. These entry conditions will be generally relaxed during the 1968 restructuring processes but most of the professional schools within the new university dominated system still maintained their tighter selective entrance examinations (see Ben-David1977).

Besides the Grandes Ecoles as the systemic structure, Doh (2007; 2008) draws from Clark’s conceptualisation of the relationship between belief, culture and structures as to how each system arrives at its own clustering and sequencing of knowledge (Clark 1983, 49), to assert that the pro-professionalisation belief was also reflected in the degree structure. According to this perspective the several cycles and intermediary degrees in the pre-Bologna degree structure in France, where each specified duration of one or two years was sanctioned by a certificate was such that every specified duration of study is easily reported to the job market. Doh (2007) attributed this French perspective of reporting through short duration certificates to the human capital and related theories (Arrow 1973, Becker 1964, Weiss 1995, Canton and Venniker 2001), on the signalling, filtering, screening and information role of higher education. The Napoleonic Model therefore addresses the productivity role of higher education to the jobs and economy, the salary side as well as the conservative needs of the individual, the student. On this premise, higher education should address market needs and signals. During most of these late 18th Century moments of structural reforms, research continued to be considered as a function of specially designated institutions, the cases of the Collège de France, Observatoire de Paris and Musé d’Histoire Naturelle (Fox and Weisz 1980. 2), until another period of extensive reforms between 1863 and 1914. A major reform by Louis Liard, Director of Higher Education in the French Ministry of Public Instruction converts the French University system into a multifunction university, adding unto the tasks of the university teacher, the research function. Two major reforms proceeding the period of programmatic professionalization as below, is the reintroduction in 1896 of the Multi Faculty University system which will become the modern university system of France today and the first Ministry for higher education created in 1920 (ibid.). However, the Grandes Ecoles continue to exist disparately out of the University until the 1960s.

2.2.2 Transition to Programmatic Professionalisation
Depicting the professionalization of all university programmes (Leroux 2014), this programmatic professionalization in France is attributed to the famous Edgar Faure Act of November 1968 on the orientation of higher education. It had as the main background a general socio economic and political revolution of May 1968 during which French higher education was highly questioned and criticized. Amidst fresh memories of the May 1968 revolution and clearly observed deficiency in the structural organisation which prioritized the *Grandes Ecoles*, the Edgar Faure Act is one of the rare laws at the time that was wholly voted unopposed by the leftist and rightist parliamentary groups. Having taken one of the shortest durations to prepare the reforms (May 1968 from when Faure is Commissioned), it was paradoxically and interestingly the most important Act in French higher education and one of the first time that the orientation of the higher education is legislated. During the May 1968 revolution, the higher education system in France was attacked, criticised and attributed to reproducing through the *Grandes Ecoles*, the social inequality that existed at the time. The admission system into the *Grandes Ecoles* was also seriously criticized. The structure of the system could not adapt to the massification that was observed from the baby boom children characterized by different social classes, with diversified abilities. There was a significant change in the demographic composition of the French society to which the French higher education system was supposed to respond (see Leroux 2014). The programmes in the main university were not very adaptive. The public sectors which were generally dominated by cadres and engineers from the *Grandes Ecoles* were saturated leading to massive unemployment that partially exacerbated the May revolution.

The 1960 reformers therefore had the feeling that the best approaches of bridging the gap between the *Grandes Ecoles* is to professionalise all the university programmes and by making them multi disciplinary with courses that facilitate the graduates’ labour market insertion. The objective as per the Faure Act was to “respond to the needs of the society by producing the cadres in all aspects of life”, contribute to professional orientation of the students and develop international cooperation in higher education. In this modern dispensation (since the 1960s), teaching universities and faculties that mostly offered classical education are professionalized to offer more technical, specialized and professional courses. More job tailored courses are integrated into the classical programmes. To buttress the importance of the new overall professionalization belief and agenda which ran into the 21st Century, France adopted a system of linking government subsidies to graduate employment rates. The overall professionalization has challenged the monopoly over professions or student entry once had by the *Grandes Ecoles* as well as reduced
their prestige. However, as has been seen through this model in Cameroon, these Grandes Ecoles have maintained their main features of selective entry and prestige in the face of attempts at being diluted in a system wide professionalization. The 1960 professionalization also sought to increase the autonomy of the universities and mass participation. Consequently the isolated faculties were absorbed into the main university. The three pillar principles of the Faure Act were therefore “autonomy, participation and Multidisciplinarity” (see the Faure Act November 1968).

2.3 The French Model overseas, the case of Cameroon

It will be observed herein that the French colonies where the French model was imported have gone through similar transition from systemic-structural professionalization to programmatic professionalisation previously and dominantly conveyed through the Grandes Ecoles to the likes of the 1960 phenomenon of professionalising university programmes. The higher education system in Cameroon is a postcolonial phenomenon built on the basis of French bilateral cooperation after the independence of Cameroon in 1960. Up until 1973 higher education in Cameroon was administered and funded by the French Foundation and was at the onset dominantly composed of French expatriates as teachers and administrators.

Until a 1993 university reform in Cameroon, the higher education system was a wholesale importation of the French model, culture and philosophy for higher education. It was dominantly meant for professional, technical and specialised training with direct civil service entry and orientation through the Grandes Ecoles. These are the case of the Centre for Administrative Studies created in 1960 (French acronym ENA), the Advanced Teachers Training College-Ecole Normal Supérieur in 1961, the University Centre for Health Science-CUSS (1969), the International Advanced Schools of Journalism (ESIJY), Engineering (ENSP) and the Institute of International Relations created in 1971. In addition, four University Centres which later became full-fledged universities were created in 1976 for translation and interpretation (in Buea), Management Science (Douala), Agronomy (Doschung) and Food Sciences (Ngaoundere). These faculty level professional establishments all operated out of the main University, the one Federal University of Cameroon.

The structural arrangement of the higher education system in Cameroon up to 1993 was typically the French combination of “Dual” and “elitist” system. It constituted of the above main university and the above several elitist establishments. Secondly, another typically French structural adoption in
Cameroon is the other professional higher education establishments in the non university sector under other ministries. These are the cases of the Advanced Schools of Public Works and Post and Telecommunications respectively under the Ministries of Public Works and Post and telecommunication. Thirdly, it was typical with the French tradition that within the technical and professional establishments their hierarchical and sequential distinctions were seldom discernible but for their civil service and professional orientations. Though they were second cycle or in one tier establishments with second cycle diplomas, they were not academic or research degrees (Doh 2007). Ben-David (1977, 39) noted with the French system that the division between such institutions was not water tide since their functions overlapped at various staged. As was the case in France, the Cameroonian system was much more expanded in the direction of specialised, fragmented Faculty-like establishment and most of them before the 1993 reforms performing elitist functions with same characteristics of selective entrance exams and immediate prospects for graduate integration into the civil service. What is clear is that the higher education was offered in two establishments, the fundamental multi-faculty university and technical and professional education through the Grandes Ecoles.

2.3.1 Same history same fate, similar reforms

By the 1990s, the same access-related phenomenon and challenges that occurred in France in the 1960s, was witnessed in Cameroon, notably the first stroke of massification resulting from surging student enrolments into the main university with severe impact on quality and funding amongst others. The main Federal University by then turned since 1973 to the University of Yaoundé, whose campus was conceived for 5000 students had attained an explosive level of congestion with over 40000 students. This situation was exacerbated by high unemployment of graduates from the main multi faculty university. On the contrary the University Centres, Institutes and Schools (Grandes Ecoles) were highly underutilised. The cited University Centre of Buea which had been created for 2000 persons had only 60 students. The University Centre at Dschang which was created for 4000 only had 555 students and the Centre at Ngaoundere had only 306 registered students (Njeuma et al. 1999, 1). Consequent to this uncomfortable structural situation, the government of Cameroon undertook between 1992 and 1993, the very first major structural reforms since independence. This reforms involved amongst others the creation of five new Universities which included converting the four 1976 centres (see 2.3) into full fledge universities.

The main objective of this reform was to reduce the overcrowding, broaden participation, provide quality higher education and professionalise
teaching programmes and courses in the multi faculty university institutions. Similar to the 1960 reforms in France, all the professional and technical programmes which had been run in the disparate establishments out of the main university in Cameroon were absorbed into the six multi faculty universities. Again the main objective for this integration was to facilitate the coordination of the system. Another innovation was that the programmes in the Cameroonian Grandes Ecoles absorbed into the main university were all granted academic or postgraduate status in addition to their professional character such that some upward and horizontal mobility could be achieved within, across institutions and with other systems (Doh 2007, 9). Previously they were non-research and non academic postgraduate institutions serving professional purposes. This interuniversity and international mobility and visibility was further to be strengthened with the adoption of a harmonised degree structure along the Bachelor, Master and PhD architecture around the year 2007.

2.3.1 Programmatic Professionalisation in Cameroon

The focus of this section is on the recent transition to programmatic professionalization of all academic programmes termed programmatic professionalization with the aim of easing the students’ placement into the world of work (Doh 2012, 143). Drawn on a higher education sectoral policy document of 2010 in Cameroon, the professionalization entails that “all the programmes are professionalised”. That is unlike before when professionalization was the domain of certain institutions and programmes the idea is that “even the driest” (classical liberal) programmes should be able to receive some professional components internally or externally from other disciplines (ibid.). The current professionalization orientation in Cameroon as per Doh (2012) goes beyond the creation of programme to curricula and teaching methods. It involves more sophisticated curriculum and pedagogy, method of teaching and learning entailing related skills development, entrepreneurial and creative teaching as well as the credit system. It suggests that more teaching will be done in the context of application and labour market values, the transition from academic teaching to teaching in the context of application (Doh 2012, 130).

This professionalization of all programmes in Cameroon takes the form of professionalising the discipline which involves adding professional components and skills to all disciplines. It is about designing the curriculum in such a way that it blends theory and practice, in fact “using teaching and research with application in mind” (Doh 2012, 148). The second approach is professionalising the Faculty” by creating more market-friendly programmes within Faculties dominated by classical fields, a concept behind the creation of
the Hotel and Tourism programme in Faculty of Arts of the University of Yaoundé 1 (ibid.). Related to this pathway is the next concept of professionalising the students which involves several approaches. The first is through cross departmental and cross faculty arrangements, the minor system that enables the students to take professional courses in other disciplines and departments to make their studies more applied and direct job and market relevant. Doh (2012, 148), reveals the example of a student in linguistics who takes courses in Journalism to enable him/her practice journalism in the case of a job search or Biology and Zoology students taking minor courses in Fisheries or Medical Laboratory technology. The next cited approach at professionalising the student is generally about coaching students for professional life as well as entrepreneurship skills that help them set up and manage their own enterprises (ibid).

2.4 Alternative Models on the role of higher education

Besides the Professionalisation or Napoleonic model (the thrust of this paper), are alternative models such as the traditional German perspective for higher education termed Humboldtian or Scientific model. The Humboldtian model perceives higher education for science as a main priority. As was the case in France, the foundation of modern German research university and worldwide reputation by the 19th Century has been mostly attributed to the profound reforms of Wilhelm Von Humboldt (February 1809-June 1810) with related philosophies such as Wissenschaftideologie and the Bildung. This Humboldtian model as per Humboldt’s memos February 1809- June 1810 perceives the need for unity of teaching and research as well as linkages between specialised training and general humanistic education, with scientific self regulation as the condition for individual cultivation. According to the Wissenschaftideologie, science and the humanities transform the intellect (Geist) and lead to refinement of the individual. The Bildung perceives higher education as an opportunity for development of one’s personality through science. This German-Humboldtian model considers that science must situate in autonomy, the notion of Solitude and Freedom (einsakeit and Freiheit).

Related to an extent to the Humboldtian Model is the Newmanian model which believes in higher education for ‘neutral’ or general knowledge (Renaut 1995). The convergence between the Newmanian and Humboldtian perspective is that they both stand on the premise that higher education is not meant to impart professional skills. There is the ‘Market Model’ of the professionalization debate which originated from Harvard University (see
Engell and Dangerfield 1998). It was inspired by the *Humboldtian model* but the difference is that knowledge and research are not viewed as ends in themselves but as channels for development in all aspects of socio-economic life (Leroux 2014, 91). Leroux further opines that professionalization in this view does not detract one from key higher education mission- to provide general education (ibid.). Hence professional training will always have an academic component but this will be insufficient in itself. According to this market model, professional training will therefore have the additional role of immersing the student into the ‘real’ professional world. Engell and Dangerfield’s (1998) ‘market model’ holds that market signals are monitored and translated into new curricula and programmes. Proponents of the model define a new logic in which ‘students tend to be seen as consumers rather than members of a campus community (and) the major responsibility for managers is to read the market…and attempt to reposition accordingly’ (Gumport 2002, 55).

The novelty is the raw power that money has over higher education activities (Clark 1998; Marginson and Considine 2000; Kirp 2003, 3). It is implied that higher education (HE) should help its graduates to find their place in the socio-professional world. The market model relates to the ‘market’ angle of Clark’s (1983) coordination triangle redefined as the ‘society’ (Cloete and Maasen 2002, 23-25) or the ‘stakeholder society’ (Neave 2002). In essence the control of how higher education behaves is no longer determined within higher education institutions but by the market that governs them (Geiger 2004, 261).

Moreover, there is the Castellian and Clark Kerr’s Model (Castells 2001; Kerr 1963). According to Manuel Castells (2001), the university has four major functions. The first is that of the generation and transmission of ideology. The second role is the selection and socialization of dominant elite. Thirdly, universities are meant to generate knowledge and lastly, universities train skilled labour force (ibid.). According Kerr 1963 the university is a key institutions for democracy, in providing society with professionals (doctors, teachers, lawyers and civil servants). There is as per Kerr (1963) the role of equity and social mobility (gender, socio-economic distribution of welfare) and lastly innovation and economic productivity. It is this multiversity that seems to have spread as the organisational form of the modern university. The *Urgent Developmental Model* (Doh 2012) perceives higher education, the training of professions for direct application, hence professionalisation as critical in driving urgent and strategic developmental needs of the country. This has been the case of Cameroon in terms of medicine for health priorities, teacher for supply of teachers for all the levels of education and engineering for technological and industrial development. The absence of such strategic programmes pose a threat of exacerbating teachnological and industrial gaps with other countries.

As can be observed from the afore mentioned *Grandes Ecoles* created
during Napoleon’s era (see 2.1.1) engineering, teacher training and medicine have historically stood highly urgent and most prioritised in French higher education professionalization. Roads for which engineers are often urgently needed is a strategic developmental infrastructure. It is often said that where a road passes, development follows because it facilitates development including reducing the cost of production. The *Poverty Reduction Model* (Doh 2012) perceives higher education as an elitist but a critical institution in poverty reduction, if not only viewed from the necessity of the professionals (engineers) it puts for infrastructural development but from the lenses of the knowledge economy. This is because of the numerous channels through which knowledge from higher education spills. For instance, Doh (2012) argued that higher education was critical in the Millennium Development Goals through for instance research, capacity-building, its intervention in the lower education cycles, advocacy and influence on policies, employment and infrastructural development.

The *knowledge economy* model or national innovation system (as synonyms) places knowledge as a cardinal intrinsic factor of production therefore suggesting the university as a critical institution in the innovation system and economic development because of its knowledge producing function through research and knowledgeable graduates (Doh 2012, 97-99 & 126). The university is actually one of the main technical angles in innovation systems characterised by the triple helix (Etzkowitz and Leydesdorff 1997). According to Doh (2012, 302, quoted in Holtta et al. 2015), the knowledge economy has come to add more emphasis on knowledge hence higher education as a public developmental and social good. With the innovation system, the university provides inputs to the research sector which generate new knowledge and provides highly trained workers. Universities are the sources of knew knowledge from which new products are developed. In the innovation system the university creates and supplies skills to industries and the society, provides the physical environment for research, teaching and training, disseminates knowledge and information for the industries, participates in innovation through R & D and provide knowledge for Science and technology. In the knowledge economy knowledge is the main resource and learning the main important process (Lundvall 1992), hence the learning economy.

The *learning economy* model depicts all aspects of competence building that contributes to the development of the knowledge economy (Doh 2015). It suggest the role of higher education in the development of learning capacities and capabilities and in sustaining the employability of graduates than actual employment and job focus. This perspective holds that the university is a centre
of learning with mission and basis of providing continuous learning to update innovations and graduate competences. Higher education institutions are centres of skills and competences for development, providing both formal and non formal advanced competences (Doh 2015, 128). The learning economy updates individuals capacity to meet the fast rate at which services and products become obsolete. Also, the global market has become unstable and unpredictable because of faster rates of changes in knowledge capacities. The learning economy suggests the transition from the traditional mode of learning by studying to learning by solving. In the traditional pattern, learning was simply meant to enhance capacities. The new pattern entails opening opportunities to apply capabilities creatively for problem solving (Lundvall & Soete 2002). In this latter pattern, people must learn specific ways of learning on the job market and the graduates will experience specific situations that will test their capabilities on what they learnt, the way they have learnt and what they learnt will be useful (ibid.). In the learning economy the university conditions the students as learning workers and learning citizens, through adult and life long learning and more adaptable curriculum.

3.0 Methodology

The empirical analysis in this paper is based on a qualitative approach to data collection and analysis as to how professionalization addresses and contains the different and respective roles of higher education. The data collection took place between June and September 2016, comprising of three phases and approaches; a desktop literature review, questionnaire (composed of structured questions and section for open ended answers) and a complementing interview. The data collection and analysis are theory driven in the sense where it is built from literature on different models on the roles of higher education. From this perspective, the theory plays a very important role in determining what the researcher is looking for and in shaping the research questions and analytical framework that propel the empirical part (Marshall and Rossman 1999).

The study begins with a desktop review of literature on different models and roles of higher education and a historical analysis of the French higher education system in France and abroad, in Cameroon. The analyses lead to the identification of ten models with related roles on the basis of which a Likert Scale questionnaire composed of thirty two questions with responses ranging from “agree”, “strongly agree” “undecided” “disagree” “strongly disagree”. This questionnaire was then administered to teachers and students of higher education management in one European and African University. The choice of the population sample was purposive in the sense where it focused on participants’ university units offering higher education management
programmes. Of 25 participants to whom the questionnaire was submitted, 17 responded giving a respondent rate of 68%. The results are concluded up on the basis of the sum total of the two extreme answers and related percentage. For instance if a greater majority were added up from “strongly agree” and “agree” we conclude the participants “agree” and vice versa. Finally in a view to propose alternative approaches to the design of inclusive professionalization policies, the complementary interview was conducted with 7 of the 17 participants.

3.1. Analysis of the results
3.1.1 Professionalisation and the different models and roles

This paper set out to analyse how professionalisation addresses other models with different roles of higher education, other than for professions and direct job application and if this professionalisation gives reason to Napoleonic Model. The answer is affirmative to the extent where professionalisation or the naopleonic model address about 50 percent of the different identified objectives and roles of higher education (see Appendix 1). However, it is noted as per an analysis of the questionnaire that professionalisation and job application is not an entire mission, mechanism and objective of higher education. For instance participants disagree (Appendix 2), if professionalization does promote the primacy of science in the society (No.3), the unity of research and teaching (4) contained in the Humboldtian model and which is necessary for research capacity and knowledge economic dimension and model. From this perspective, it is questionable as per respondents if it promotes the university’s role in knowledge generation. A specific extended comment from a disagreeing respondent as to if professionalization promotes the unity of research and teaching and knowledge generation is as follows:

“Unfortunately, the research and knowledge-generation components that should strengthen the students’ autonomous learning capacities are often under looked in many professionalization strategies. Many professional programmes mostly focus directly on jobs. Universities are finding it hard to integrate research into professional degree programmes. In any case, some people belief internship to which professional programmes are attributed, is synonymous to research, this may not be true”

Even though participants do agree that professionalization could be critical in the production of critical knowledge as factor of production or a source of
new knowledge (No.10 and No.11), one of the agreeing respondents observes that “It depends because when research skills are lacking with professional graduates, then the knowledge production function of the university and the entire system is weak”. There are also competences like humanistic education, the generation and transmission of ideology, the development of one’s personality, civic and citizen education and democracy that may seldom be reflected in professionalization policies (5, 6, 9 13). In terms of the compatibility with humanistic education another disagreeing respondent expresses that “Well, to a less extent; there could be a mixture of the humanistic components with professionalisation”. In terms of the capacity to develop one’s personality, another disagreeing respondent added that “many designers of professionalization policies and programmes and even the students only care about the jobs and not this personality aspect”. This could be a serious issue in the world”. In terms of professionalization promoting the university’s role in the generation and transmission of ideology another respondent states that “professional policies and programmes seldom care about this ideological role”.

A great majority of the respondents disagree on the suitability of professionalization for mass, equitable higher education access and social mobility. The history of French higher education professionalization already pointed to the fact that professionalization cannot be a mechanism for equity and social mobility in the society. It is rather as per Castells and as indicated by the study, a mechanism for the selection and socialization of dominant elite and as per one respondent, “It only gives room for a few to be selected for jobs in the society”. Although the recent broad approach aimed at professionalising all programmes may be a mechanism for democratising and massifying job relevance for all higher education graduates, the elitist attribute of professionalization has come to be exacerbated by a new related phenomenon whereby many professional programmes are either costly or fee based. Another recent study (Doh and Engola 2016, forthcoming) show that the increasingly conceived professional masters programme are fee based mostly afforded by working class student cohorts, capable of paying the fees. In this sense, it discriminates against young graduates who may be smarter and intelligent. Such professional master programmes are therefore not mass friendly. This situation correlates to the fact that 10 out of 17 participants, 58% (No.3) agree that professionalization reinforces the consumer perspective in higher education. One of the related respondents adds that “there are situations where the behavior of the students tends to be like consumers“. Another respondent observes “it is very true because professional education nowadays is mostly fee based”.

17
It is also interesting to observe from the responses that a majority disagree if professionalization provides creative capabilities for problem solving, thus questioning the employability and job maintenance perspective of the learning economy model. Finally the fact that the number of participants who agree equals those who disagree (Appendix 3) suggested no clear answer to three items in the questionnaire as to if professionalization provides “provides inputs to the research sector” (No.20) “facilitates excellence in higher education” (No.30) “facilitates the teaching learning process (No.32). In terms of excellence and as to if professionalization facilitates the teaching process, (Doh and Engola 2016 forthcoming) has observed situations with professional masters programme in Cameroon where teaching standards are being dropped, in order to satisfy the fee paying students as the “teachers now tend to pamper the students, usually adjusting the time tables and programme to the demand of the working cohort”. This consumer behaviour neither facilitates the teacher’s task nor the teaching learning processes. Also, although well crafted and readymade university professionalization policies and strategies may render the tasks of the teacher easier, it is not coterminous to facilitating the teaching learning process especially when viewed from the perspective that universities now have to be involved in additional tasks like career counselling amongst others (see Leroux 2014). According to one of the respondents, professionalisation is an additional burden to the teaching learning process”. Another respondent observes that professionalization does not necessarily contribute to educational excellence. “It could be excellent if only viewed from the perspective of how adaptable the education is to societal needs”. Also, the very marginal difference between the 8 who agree and the 7 who disagree in No 31 as to if professionalization facilitates efficiency attracts, attention. Drawn on one respondent, “Some people believe, once effective and students have jobs, then the university is efficient in its role and can show the society that it is doing its jobs”. Also a significant number of participants who declared as “undecided” on No 21 and 25 (6 and 5 respectively)(Appendix 4) as to if professionalization is a “source of new knowledge “ and whether “it facilitates learning capacities, continuous learning and updates innovation”, is worthy of attention as well.

3.1.2 How Professionalisation incorporates the different models

The second part of the question sought to examine how the roles from the other models are incorporated professionalization policies and strategies and found out as per the questionnaire as follows:

Table 1: Professionalisation and different models of higher education

<table>
<thead>
<tr>
<th>No.</th>
<th>Role</th>
<th>Direct Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reinforces the consumer perspective of higher education</td>
<td>Market model</td>
</tr>
</tbody>
</table>
It is a means of selection and socialization of dominant elite

Provides Professionals and specialists to the society

It strengthens the university’s role in the provision of skilled labour force

Strengthens the university role in national innovation and economic productivity

It facilitates meeting the urgent and strategic developmental needs of the country

Professionalisation is critical in national poverty reduction strategies

It is critical in the production of critical knowledge as factor of production

It is the source of new knowledge as factor of production

Professionalisation enhances the supply of skills to industries and societies

It facilitates learning capabilities, continuous learning and updates innovation

It provides skills and competences for development

It updates individual skills and it is a strategy for lifelong learning

Professionalisation facilitates relevance in HE

It facilitates efficiency in the role of HE

One can vividly observe the conspicuousness and dominance of the knowledge Economy Model on the above table which could as well justify a conspicuous return of the Napoleonic model in the context of knowledge economic development. On the other hand there are controversial roles in some of the models such as the market model where professionalization is seen to reinforce consumerism, important in financing higher education but detrimental to educational excellence in the context specified in 3.1.1. More controversially is also the elite selection and socialisation attribute, important as a reporting and signalling mechanism but however inappropriate for equal and mass access to higher education and exacerbates social inequality.

4.0 Reflections on mutually reinforcing Professionalization Strategies

By mutually reinforcing strategy, it is referred herein to different pathways as to how professionalization strategies, policies and professional programmes can address and incorporate most of the higher education roles in the different
models (3.1.1). Drawn on the supplementary interviews (see 3.0) the following options presented from Doh (2012) study on professionalization were retained in order of priority.

1. **Professionalising the student**. This to the respondents could be a main option in the event of a preoccupation to facilitate labour market insertion for all students because it does not distract the discipline from its pedagogical path and all disciplines as per one respondent “are not meant for job application”. This approach, alternatively called the minor system was said to be very responsive in the professional placement of student. For instance, there is the cited case of a linguistic student and similar programmes like History who graduates with some professional competence in Journalism and thus easily find placement on the job market as a journalist. The respondents argue that by trying to emphasize that all disciplines have professional and application components the core of the original discipline may be displaced. This perspective implies that professional minors professionalize the student and it is better to professionalize the students than the discipline. The advantage is that the combination of the traditional liberal science or arts subjects with professional minors maintains the generic skills and at the same time professionalise the students; “The student graduates as professional but still possesses all the generic skills from the basic discipline”.

2. **Professionalising the disciplines**. A second approach which also exist in the French case (Leroux 2014) is the concept of “Professionalising all programmes”. This range from introducing professionalizing component to the programmes, providing the disciplines with multidisciplinary and professional competences to qualify the students for the labour market and coaching students for professional life. It is about orientating the students to be able to set up and manage their own enterprises. It involves innovative and flexible innovation pedagogic approaches which engage students to learn how to learn and to be able to confront complex problems which they can solve through their own learning competences; pedagogy that blends theory and practice. It could include involving professionals and even the students to participate in design of the curriculum and pedagogic activities. It extends to job and career guidance counseling. Besides the other coaching relevant for the job insertion of all programmes, the weakness with professionalizing disciplines is the likelihood of deviating the programme from its disciplinary and pedagogic path. Instead of teaching the discipline the way it should be taught as per one respondent, this type of practices “entail overloading all disciplines with examples of
application”. Also the related couching elements add significant pedagogic burdens to the teaching learning process.

3. A third school of thought suggests that the traditional organization (American model contribution, see 1.0) and sequencing in three tiers (cycles) between liberal and generation education in the first cycle, specialized education and initial research training in the second cycle still remains valid as a mechanism for most, if not all the models and roles to be embraced in a comprehensive higher education system structure. In this case “training, towards professional research career” through doctoral and postdoctoral programmes, according to respondents, could be lodged in a third cycle.

Respondents observe that while the first cycle remains valid for such general functions as humanistic education, personality development, generation and transmission of ideology, knowledge generation, good citizenry and democracy, mass and equitable access, the second cycle could be relevant for preparing professionals, specialist and for the research career. This perspective, as per respondents held that the basic levels of the higher education system are for the mass roles and general knowledge and “it comprehensively begins from selecting, (filtering), professionalizing and specializing more narrowly from the second cycle”.

4. The above (No.3) was remarked to necessitate a type of institutional or systemic differentiation into a binary system composed of the classical and applied programmes and universities. This perspective holds that if the student wants to end in the first tier (Bachelor) as a professional and specialist, then the student should be given a chance in the structure and organisation of the system through professional establishments or to go directly to an applied university.

5. A second approach that emerges from above (No.3) is typological differentiation between “Taught”, “Research” and “Professional” Master programmes depending on the outcomes. This typological distinction is such that the students have the options to prepare for the research career towards the third cycle or easy exit to the job market as professionals. In UK most taught masters include a degree of independent study or research, therefore not too different from the research programme (see QAA-Uk 2010). However, because of the uncertainty in the job market participants insists on the necessity of ascertaining to a maximum that the different models and respective roles are integrated through cross cutting generic, research and problem-solving survival skills. Another observable pattern of differentiation is the emergence of Professional doctorates that embody significant portion of
job and industry -tailored skills and competences. This explains that due to financial austerity and incapacity to guarantee a consistent employment and career path (tenure), the universities and related research institutes are no longer the immediate home and hosts of the doctorates and research scientists. It is no longer the case that the doctoral degree (PhD) which was dominantly a research degree, as its historical origin suggests, where the graduates were usually absorbed into the teaching and research career even before completion. This situation calls for new career paths and a greater societal and industrial applicability of the doctoral graduate’s training. Apart of financial austerity in the academia this typological distinction in doctorate degrees is suggested by the increasing university industry partnerships today as well.

**Conclusion**

This article examined professionalization as being a traditional and historical the French model and contribution to global higher education. The authors posit that professionalization in France is deeply rooted in the French higher education history than the recent 1960 professionalization phenomenon (Leroux 2014). This perspective holds that the recent professionalization policies since the 1960s in France is simply a transition from *structural professionalization* previously marked by the specialised professional schools, the *Grandes Ecoles* and specific Faculties to *programmatic professionalization*, the professionalization of entire university programmes. According to the historical-sociological analysis, the professionalization-specialisation belief which was significantly fostered and structured by Napoleon Bonaparte at end of the 18th Century and early 19th Century was to the French what research was to the German and liberal education to the British.

We then proceeded to examine how the French professionalization model remains prominent and how it addresses and incorporates other models on the roles of higher education. In order to justify it as a model, we examined the French model in Cameroon. The first remark that draws from the analysis of the French model in France and Cameroon is that professionalization is most often not mass or access friendly. As such, policymakers and managers should always pay attention to complementary strategies such as scholarships and subsidies to render professional establishments and programmes more inclusive. This elitist attribute of professionalization has been evident in the structural pattern characterised by the specialised professional schools where admission is usually not easy in today’s fee-based professional bachelors and masters programmes. Such professional programmes restrict access to the young and smart graduates who could as well steer excellence in the programmes.
The study showed that professionalisation or the Napoleonic model of higher education remains very prominent in today’s higher education. This is evident in the manner in which professionalisation addresses various aspects of the knowledge economy on Table I. However, the study also shows that although professionalisation is prominent or has prominently re-emerged in the knowledge economy, it only covers about fifty per cent of other objectives and roles of higher education. Designers of professionalisation policies and programmes should pay attention to how professionalisation addresses and incorporates other objectives and roles because they could easily drive other human, cultural and economic development objectives as well. These are the examples of the primacy of science, research capacities, humanistic education, personality development, general knowledge, generation and transmission of ideology, knowledge generation, good citizenry and democracy. It is also important to note that nowadays there are alternative models which call on a change in perspectives about the role of higher education and in professionalization strategies. This is the case of the learning economy model which suggests the importance of tackling employability through learning, problem solving and other survival approaches rather than being limited to employment and direct application. Finally, in the course of examining the prospects of mutually reinforcing professionalization strategies that could cover most, if not all the models and roles, we resolved on the priority as professionalizing the student than too much focus on professionalizing programmes due to the likelihood of distracting the programme from its disciplinary path. This view holds that it is important to maintain the disciplinary paths and foundations of each discipline because every programme initially has application in mind.

References:


QAA (2010) “Master's degree characteristics”, Quality Assurance Agency for Higher Education, United Kingdom. Available at available on our website www.qaa.ac.uk


APPENDICES: (Extractions from the Questionnaire Analyses)

Appendix 1: Agree (Affirmative Answers)

<table>
<thead>
<tr>
<th>No.</th>
<th>Roles</th>
<th>Conclusion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Professionalisation facilitates the university’s role in addressing the individual and national employment and occupational needs</td>
<td>Agree</td>
<td>100</td>
</tr>
<tr>
<td>2.</td>
<td>It addresses the direct job applicability role of higher education (HE)</td>
<td>Agree</td>
<td>100</td>
</tr>
<tr>
<td>8.</td>
<td>It reinforces the consumer perspective of higher education</td>
<td>Agree</td>
<td>58.82</td>
</tr>
<tr>
<td>10.</td>
<td>It is a means of selection and socialization of dominant elite</td>
<td>Agree</td>
<td>76.47</td>
</tr>
<tr>
<td>12.</td>
<td>It strengthens the university’s role in the provision of skilled labour force</td>
<td>Agree</td>
<td>94.11</td>
</tr>
<tr>
<td>14.</td>
<td>It provides Professionals and specialists to the society</td>
<td>Agree</td>
<td>94.11</td>
</tr>
<tr>
<td>16.</td>
<td>It strengthens the university role in national innovation and economic productivity</td>
<td>Agree</td>
<td>70.58</td>
</tr>
<tr>
<td>No.</td>
<td>Roles</td>
<td>Conclusion</td>
<td>Percentage</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>17.</td>
<td>It facilitates meeting the urgent and strategic developmental needs of the country</td>
<td>Agree</td>
<td>94.11</td>
</tr>
<tr>
<td>18.</td>
<td>Professionalisation is critical in national poverty reduction strategies</td>
<td>Agree</td>
<td>82.35</td>
</tr>
<tr>
<td>19.</td>
<td>It is critical in the production of critical knowledge as a factor of production</td>
<td>Agree</td>
<td>47.05</td>
</tr>
<tr>
<td>21.</td>
<td>It is the source of new knowledge as factor of production</td>
<td>Agree</td>
<td>52.94</td>
</tr>
<tr>
<td>23.</td>
<td>Professionalisation enhances the supply of skills to industries and societies</td>
<td>Agree</td>
<td>76.47</td>
</tr>
<tr>
<td>25.</td>
<td>It facilitates learning capabilities, continuous learning and updates innovation</td>
<td>Agree</td>
<td>70.58</td>
</tr>
<tr>
<td>26.</td>
<td>It provides skills and competences for development</td>
<td>Agree</td>
<td>76.47</td>
</tr>
<tr>
<td>27.</td>
<td>It updates individual skills and it is a strategy for lifelong learning</td>
<td>Agree</td>
<td>88.23</td>
</tr>
<tr>
<td>29.</td>
<td>Professionalisation facilitates relevance in HE</td>
<td>Agree</td>
<td>82.35</td>
</tr>
<tr>
<td>31.</td>
<td>It facilitates efficiency in the role of HE</td>
<td>Agree</td>
<td>47.05/41.17</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>1235.22</td>
</tr>
<tr>
<td>TOTAL PERCENTAGE</td>
<td></td>
<td></td>
<td>55.55</td>
</tr>
</tbody>
</table>

**Appendix 2: Disagrees (Opposite) 38%**

<table>
<thead>
<tr>
<th>No.</th>
<th>Roles</th>
<th>Conclusion</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Promotes the primacy of science in the society, according to this perspective, it is science that triumphs as the role of HE</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>4.</td>
<td>It promotes the unity of research and teaching</td>
<td>Disagree</td>
<td>70.58</td>
</tr>
<tr>
<td>5.</td>
<td>Linkage between specialized teaching and humanistic education</td>
<td>Disagree</td>
<td>47.05/41.17</td>
</tr>
<tr>
<td>6.</td>
<td>Provides an opportunity for development of one’s personality</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>7.</td>
<td>It reinforces the role of HE in the provision of general knowledge</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>9.</td>
<td>It promotes the university’s role in the generation and transmission of ideology</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>11.</td>
<td>It promotes the university’s role in knowledge generation</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>13.</td>
<td>It strengthens the university’s role as an institution for good citizenry and democracy</td>
<td>Disagree</td>
<td>82.35</td>
</tr>
<tr>
<td>15.</td>
<td>It is a mechanism for equity and social mobility in the society</td>
<td>Disagree</td>
<td>82.35</td>
</tr>
<tr>
<td>22.</td>
<td>It reinforces mass and equitable access to HE programmes</td>
<td>Disagree</td>
<td>70.58</td>
</tr>
<tr>
<td>24.</td>
<td>It is critical to knowledge dissemination</td>
<td>Disagree</td>
<td>76.47</td>
</tr>
<tr>
<td>28.</td>
<td>Professionalisation provides creative capabilities for problem solving</td>
<td>Disagree</td>
<td>52.94</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>864.67</td>
</tr>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
<td>38.88</td>
</tr>
</tbody>
</table>

**Appendix 3: Unclear Positions**

<table>
<thead>
<tr>
<th>No.</th>
<th>Roles</th>
<th>Agree</th>
<th>Disagree</th>
<th>Conclusion</th>
<th>Percentage</th>
</tr>
</thead>
</table>

20. It provides inputs to the research sector 6 6 Not Clear 41.17/41.17
30 It facilitates excellence in higher education 5 5 Not Clear 35.29/35.29
32 It facilitates the teaching learning process in HE 7 7 Not Clear 47.05

Total 123.51
Percentage 5.55

Appendix 4: 'Undecided'

<table>
<thead>
<tr>
<th>No.</th>
<th>Roles</th>
<th>Undecided</th>
<th>Conclusion</th>
<th>%tage</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>It is the source of new knowledge as factor of production</td>
<td>6</td>
<td>Agree</td>
<td>52.94</td>
</tr>
<tr>
<td>25.</td>
<td>It facilitates learning capabilities, continuous learning and updates innovation</td>
<td>5</td>
<td>Agree</td>
<td>70.58</td>
</tr>
</tbody>
</table>

Дох Паскаль, Биола Терезія Самфога Дох

ПЕРЕВАГИ НАПОЛЕОНОВСКОЙ МОДЕЛИ ВИЩОЇ ОСВІТИ В УМОВАХ ЕКОНОМІКИ ЗНАНЬ

Анотація

У статті досліджується питання про те, як професійна модель вищої освіти співвідноситься з іншими її типами як у сучасному суспільстві, так і в історичному аспекті.

Виконано історичний аналіз основних типів систем вищої освіти, які знайшли глобальне поширення. Професійно спрямована вища освіта, тобто освіта для безпосереднього працевлаштування та застосування в практичній діяльності розглядається як французький тип мислення (Французька історична модель вищої освіти), яка з часів Наполеона отримала значний розвиток.

Автор досліджує переваги такої моделі освітньої системи та їх взаємозв’язок та взаємопроникнення в інші типи освітніх систем в умовах економіки знань.

Дох Паскаль, Биола Терезія Самфога Дох

ПРЕИМУЩЕСТВА НАПОЛЕОНОВСКОЙ МОДЕЛИ ВЫСШЕГО ОБРАЗОВАНИЯ В УСЛОВИЯХ ЭКОНОМИКИ ЗНАНИЙ

Аннотация
В статье исследуется вопрос о том, как профессиональная модель высшего образования соотносится с другими его типами как в современном обществе, так и в историческом аспекте.

Проделан исторический анализ основных типов систем высшего образования, которые нашли глобальное распространение. Профессиональное высшее образование, то есть образование для прямого трудоустройства и приложения в практической деятельности рассматривается как французский тип мышления (Французская историческая модель высшего образования, которая со времен Наполеона получила значительное развитие.

Автор исследует преимущества такой модели образовательной системы и их взаимосвязь и взаимопроникновение в другие типы образовательных систем в условиях экономики знаний.